

ATTACHMENT-0

Resume of the LEAD Education Foundation Members

Charlotte Meadows

SUMMARY OF QUALIFICATIONS

- Self-motivated and results focused, with the ability to prioritize and multitask
- Expressive personality that proves useful in bringing agreement to diverse groups
- Experienced in advocating on behalf of children and constituents at local and national levels
- Able to build positive relationships in diverse groups to facilitate progress towards a goal
- Equipped to use complex pieces of data (budgets, tests scores, etc.) to make difficult decisions

PROFESSIONAL EXPERIENCE

Consultant | *Alabama Opportunity Scholarship Fund* | Aug 2016- Oct 2016

AL Outreach/Policy Director | *Students First* | Montgomery, AL | December 2012 – May 2016

- Supported Alabama Accountability Act legislation – Feb 2013
- Successfully lobbied for Charter School legislation – March 2015
- Worked on Teacher Tenure and Teacher Preparation legislation - 2016

School Board Member | *Montgomery Public Schools* | Montgomery, AL | Dec 2006 – Nov 2012

- Elected Board President, Dec 2010 – Nov 2012
- Alabama Association of School Boards Academy Master Level 2012
 - 2 terms as District 4 Director, Dec 2009 – Nov 2012.
- Chosen to travel to South Korea with Hyundai to represent MPS in May 2011
- Selected by AASB in Feb 2011 and 2012 to attend FRN in DC to represent Alabama and lobby for the children of Alabama

Administrator, Treasurer | *Alabama Allergy & Asthma Clinic* | Montgomery, AL | July 1991 - present

- Oversee business growth to 10 employees with almost \$1,000,000 in annual revenue
- Hired and trained all administrative staff over the life of the business
- Supervise employees with 4-12 years of employment with the company

RELATED EXPERIENCE

PTSA President | *Booker T Washington Magnet High* | June 2004 – May 2006

- Recipient of High School Teacher of the Year and Parent Involvement Award
- Achieved 100% Parents/Teacher membership for the first time in school history

Montgomery Autauga Elmore Medical Alliance President | 1999 – 2000

- Hosted and coordinated fundraisers for local and state politicians
- Coordinated over 200 volunteers helping in schools, fundraisers, and the family of medicine

EDUCATION

University of South Alabama, Mobile, AL
Master in Business Administration / March 1989

Auburn University, Auburn, AL
Bachelor of Science in Business Administration
– *Accounting* / June 1984

RECENT COMMUNITY INVOLVEMENT

ACAAI Alliance President Nov 2016-Nov 2017: Republican Club of Central AL – Treasurer, President July 2015 to 2017: Rotarian, 2006 - present, 2010-17 Board member, Sgt. at Arms, Fundraiser chair and current Treasurer: YMCA Jimmy Hitchcock Committee, 2007 – present: Montgomery County Republican Executive Committee – 2012 to present, Alabama State Executive Committee – 2014 to present: Harvest Family Church, taught a Kindergarten Sunday School class 2000-2016, Teach K-6th Wed class: Montgomery Ballet- Assistant Treasurer 2012, President 2013-2015, Treasurer 2015-16: Leadership Montgomery 2006 - 2007, Leadership Alabama 2011 - 2012

Curriculum Vitae

April 19, 2017

PERSONAL INFORMATION

Name: Lori Callis White, M.D.

Citizenship: USA

Foreign Languages: None

Home Address:

[REDACTED]

[REDACTED]

RANK/TITLE

Assistant Professor of Medicine

Director, Inpatient Services

Director, Curriculum

Department:

Medicine, UAB School of Medicine, Montgomery

Internal Medicine Residency Program

Business Address:

2055 E. South Blvd, Suite 202

Montgomery, AL 36116

Phone:

(334) 284-5211

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(334) 284-9020

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lcwhite@uab.edu

HOSPITAL AND OTHER (NON-ACADEMIC) APPOINTMENTS

2011 – Present Active Staff Member, Baptist Medical Center South, Montgomery, AL

2007 – 2011 Hospitalist, (PRN), Baptist Medical Center East, Montgomery, AL

2010 – 2011 Physician (PRN), Care Here, LLC, Montgomery, AL

2007 – 2009 Physician, Montgomery Cancer Center, Acute Care Clinic, Montgomery, AL

2003 – 2007 Hospitalist, (Full time), Baptist Medical Center East, Montgomery, AL

1998 – 2003 Physician, (Private practice), Primary Care Medicine, Montgomery, AL

1994 – 1998 Physician, (Private practice), Edgar Givhan, M.D., P.A., Montgomery, AL

1992 – 1994 Physician, Lexington Fayette County Health Department, Lexington, KY

1991 – 1992 Physician, Baker Hospital Emergency Department, North Charleston, SC

1992 Locum Tenens, Winfield C. Towles, M.D., North Charleston, SC

1989 – 1991 Physician, (PRN), Veterans Administration Hospital Outpatient Department, Charleston, SC

EDUCATION

Doctor of Medicine 1984 - 1988
Emory University School of Medicine
Atlanta, Georgia

Bachelor of Science – Biology 1980 - 1983
Magna cum Laude
Georgia State University
Atlanta, Georgia

LICENSURE

Medical License, State of Alabama, #18141
Alabama State Controlled Substance License
Federal Drug Enforcement Administration License

BOARD CERTIFICATION

American Board of Internal Medicine, Internal Medicine, Recertified 2007

POSTDOCTORAL TRAINING

Internal Medicine Internship & Residency 1988 – 1991
Medical University of South Carolina
Charleston, South Carolina

ACADEMIC APPOINTMENTS

Clerkship Director, 4th year Acting Internship 2015- Present
UAB School of Medicine, Montgomery Campus
Director, Inpatient Services 2013 – Present
Director, Intern Workshop 2013 – Present
Chair, Curriculum Committee 2012 – Present
Assistant Professor of Medicine 2011 – Present
University of Alabama School of Medicine
Montgomery Internal Medicine Residency Program
Montgomery, Alabama

AWARDS/HONORS

Evangeline Papageorge Award 1988
Alpha Omega Alpha Honorary Member
Emory University School of Medicine

Magna cum Laude 1983
Georgia State University

MEMBERSHIPS

Medical Association of the State of Alabama
Montgomery County Medical Society

COUNCILS AND COMMITTEES

Mortality and Morbidity Committee, 2014 - Present
Member, Baptist Medical Center South,
Montgomery, Alabama

QA / QI Committee, Member 2013 – Present
Baptist Medical Center South
Montgomery, Alabama

Residency Curriculum Committee, Chairman 2012 – Present
Residency Mentoring Program, Member 2011 – Present
Residency Executive Committee, Member 2011 – Present
Residency Recruitment Committee, Member 2011 – Present
UAB Montgomery Internal Medicine Residency Program
Montgomery, Alabama

TEACHING EXPERIENCE

Attending Physician, UAB School of Medicine, 2014 - Present
Montgomery, Al Campus

Attending Physician 2011 – Present
UAB Montgomery Internal Medicine
General Medicine Service/Baptist Medical Center South

Attending Physician 2011 – Present
UAB Montgomery Internal Medicine Ambulatory Clinic

Current Mentorship

Internal Medicine Residents

David Richards, MD 2016 - Present
Caitlin Jones, MD 2014 - Present
Marie Blaze, MD 2014 - 2016
Jordan Simpson, MD 2011 – 2014
(Montgomery Internal Medicine Residency Program)
Shikha Jaiswal, MD 2012 – 2014
(Montgomery Internal Medicine Residency Program)
Kaneza Bgoya, MD 2011 – 2013
(Montgomery Internal Medicine Residency Program)
Pooja Sethi, MD 2011 – 2013
(Montgomery Internal Medicine Residency Program)

Ryan K. Cantrell

EMPLOYMENT

- The PIE Network** • 2017 – Current
Senior Director for Charters, Choice and Political Engagement

- The American Federation for Children** • 2015 – 2017
Regional Advocacy & Political Director

- The American Federation for Children** • 2013 – 2015
Alabama State Director

- Office of the Senate President Pro Tempore** • 2010– 2013
Policy and Research Analyst

- Alabama Republican Party** • 2009 – 2010
Deputy Political Director/Election Day Operations

- Alabama Republican Party** • 2008 –2009
Victory Field Director

- Chamber of Commerce Association of Alabama
Business Council of Alabama** • 2007 – 2008
Executive Assistant to the President/CEO

EDUCATION

- Faulkner University** • 2008
B.A. in Political Science

COLLEGE ACTIVITIES

- SGA President** • 2007 – 2008
 - *Worked as liaison between students and Administration/Faculty*
 - *Worked successfully with Student Senate to write and pass various resolutions*

- Varsity Golf Team** • 2005 – 2008
 - *Two-time All-Conference and All-Region selection*
 - *Team captain during Junior and Senior years*

William A. Green, Jr.

Montgomery, Alabama

Education

Alabama State University-Montgomery, Alabama
Bachelor of Science -- Accounting, 1993

Technical Summary

Operating Systems: UNIX, Windows NT/95/98/2000, RDBMS, IBM Mainframes, DOS, SUN Solaris

Languages: SQL, SQL*Plus, PL/SQL, XBASE, Oracle Express, Visual Basic, HTML, DHTML, XML, JavaScript, VBScript, CFML, XSLFO, ActionScript

Software: Oracle General Ledger, Oracle Accounts Payable, Accounts Receivable, Oracle Purchasing, Oracle Inventory, Oracle Assets, Oracle Human Resources (Shared), Oracle System Administrator, Oracle Web Requisitions, iProcurement, Internet Expenses, Oracle Workflow, Oracle System Administrator, Oracle Approval Management (AME), Oracle AOL, Oracle Financial Analyzer 4.0 and 11i, Oracle PCExpress 4.0, Forms 4.5, Forms 6i, Reports 2.5, Reports 6i, Business Intelligence 1.2, Procedure Builder, TOAD, Oracle7, Oracle8, Oracle8i, Oracle 9i, SQL*Loader, ColdFusion, Macromedia Flash, Macromedia Fireworks, Macromedia Dreamweaver, Microsoft FrontPage, Microsoft Office Applications, Microsoft Project, ERWIN, Microsoft IIS, XML Publisher, Flex, Sub Ledger Accounting (SLA)

Tools: TOAD, Developer 6i, Reports 6i, Forms 6i, Workflow Builder, ERWIN, SQL*Loader, SQL Navigator, Eclipse, HP Quality Center, Discoverer

Other: Application Implementation Methodology (AIM), Dynamic Systems Development Methodology (DSDM)

Experience

President, William Delaney Consulting, Inc. – Montgomery, Al.
March 2000 to Present

Oracle Financial Applications Support Rimini Street, Inc. (June 2013 – Present)

Perform Support for Oracle EBS 11i and 12.0.6 for the Fortune 500 Clients. Provide remote-based support for mission-critical Oracle EBS applications as part of a global customer support team. Responsible for researching, troubleshooting and supporting of multiple Oracle EBS modules for global clients who use 10.7, 11i & R12. Diagnose serious issues; then develop, test, package and deliver functional and technical fixes for such issues in complex, integrated and highly-configured environments. Modules supported include GL, AP, AR, FA, PO, CM, Internet Expenses and iProcurement.

Oracle Financial Applications Support United States Air Force (April 2010 – June 2013)

Perform Support for Oracle EBS 11i and 12.0.6 on a 10g RAC environment for the USAF. Analyze the application requirements and design and provide recommendations. Provide assistance with the application load and document discrepancies as they develop. Perform patching, backup and restores. Resolve connectivity issues, and work problems as they arise. Provide Migration and integration of application data through extract scripts, processes and data loads. Perform installation of Oracle applications and database.

Functional and Technical Lead Mail Express (August 2009 – December 2011)

Implement General Ledger, Accounts Receivable, Accounts Payable, Payments, Internet Expenses, Purchasing, Internet Procurement and Cash Management 12.0.6 for a bulk mail service provider. Perform requirements gathering and gap analysis. Document and analyze conversion design. Set up applications. Perform conference room pilots. Write custom reports. Write conversion programs to convert suppliers, open AP invoices and open AR invoices. Train end users and document set ups. Perform post go-live support.

Functional Lead SAPA (October 2009 – March 2010)

Implement Purchasing, iProcurement, Inventory 12.0.6 for an aluminum extrusion manufacturer. Perform requirements gathering and gap analysis. Document and analyze interface and conversion procedures. Map current and future business processes. Set up applications. Perform conference room pilots.

Functional Lead and Technical Lead Newfoundland Labrador Government (October 2008 – August 2009)

Implement Purchasing 11.5.10 Integration to External Purchasing Application for the government purchasing department. Gather technical and functional requirements to integrate Oracle with an external purchasing system. Troubleshoot issues with current purchasing implementation and design the interfaces to the external purchasing application. Write custom procedures to check funds and validate accounts in General Ledger. Wrote custom procedures and views to process approval and information workflow notifications in the external application. Wrote views to provide data for real time integration with the external system. Provide ongoing support for General Ledger, Purchasing, Inventory and Accounts Payable as needed. Review archiving and purging requirements for financial applications to improve performance. Review requirements for ACH payments and Cash Management interface and reconciliation.

Functional Lead Vulcan Materials (June 2008 – September 2008)

Implement Purchasing, Accounts Payable and iProcurement 11.5.10 for a provider of construction aggregates. Gather requirements. Train end users. Conduct conference room pilots. Map current and future business processes.

Functional Lead MetroPCS (October 2007 – June 2008)

Implement Purchasing and iProcurement 11.5.10 for a cellular service provider. Perform requirements gathering and gap analysis. Document and analyze interface and conversion procedures. Set up applications. Conduct end-user training and knowledge transfer. Perform conference room pilots. Modify reports using XML Publisher and XSLFO. Modify workflow to meet business requirements. Create form personalizations for purchase order defaults. Create a custom approval process using custom procedures and modifying standard Oracle procedures to meet business requirements. Create a custom procedure to duplicate requisition lines based on project information uploaded from an attachment in iProcurement. Modify Oracle Discoverer reports to meet client requirement.

Functional Lead Cellular South (January 2007 – October 2007)

Implement Accounts Payable, Cash Management, Purchasing, iProcurement, iExpenses and Inventory 11.5.10 for a cellular service provider. Perform requirements gathering and gap analysis. Document and analyze interface and conversion design. Set up applications. Perform conference room pilots. Set up Oracle Approval Management (AME). Write conversion programs to convert set up data. Write custom ACH payment program for interface with bank.

Project Manager, Financials Support and Lead MidAmerican Energy (November 2005 – January 2007)

Implement a New Set of Books and Provide System Support 11.5.10 for a regional energy holding company. Provide support services for users of Oracle Applications. Set up and configure General Ledger, Accounts Receivable, Purchasing, Inventory, Cash Management and Accounts Payable for testing and prototyping. Create and manage project plans. Create custom reports using Oracle Reports and Discoverer. Provide System Administration functions such as adding new users and creating responsibilities. Troubleshoot any issues that may arise for the Oracle Financials, Purchasing and Inventory applications. Develop project plans and budgets. Create change management and Issue Management policies and procedures. Manage, co-ordinate and organize system testing and cut-over planning. Perform project management duties as required. Write an interface to Accounts Receivable.

Financials Lead Western Digital (April 2005 – November 2005)

Upgrade General Ledger, Fixed Assets and iExpenses from 10.7 to 11.5.10 for a global hard drive manufacturer. Upgrade to multiple business units and multiple currencies (**Japanese Yen, Thai BAHT, Taiwan Dollar, French Franc, German EURO, Malaysian Ringgit**), improvements to the existing Oracle instance architecture to enable global system access, reporting and SOX compliance. Perform functional application setup, configuration, and testing with business users. Troubleshoot problems related to Oracle eBusiness Suite Financials. Participates in unit, regression and integration testing of developed solutions, as well as prepares migration instructions. Provides timely technical & functional production support via direct communication with end users.

Purchasing Lead Quest Software (May 2004 – April 2005)

Implement Purchasing and iProcurement 11.5.9 for a major software developer for the U.S. offices. Gathered business requirements. Documented processes. Set up purchasing and iProcurement to meet business requirements. Create training documentation. Train end users. Upload vendor catalogs into iProcurement. Modify XML documents to add additional functionality. Set up punch out to vendor sites. Set up XML PO functionality. Modify custom procedures to meet customer requirements using PL/SQL. Create custom web inquiries to see the detail status of receiving.

Financials Lead Pentel America Limited (April 2004 – June 2005)

Process Review and Re-Engineering for General Ledger, Accounts Receivable, Accounts Payable, Fixed Assets and Internet Expenses 11.5.8 for an international manufacturer and distributor of ink pens. Review and analyze current AR processes and recommend process improvements to speed the invoicing and cash receipts process. Review the AP processes to simplify reconciliation, matching and put in place proper accounting policies and practices. Review the advantages and implement iExpenses to streamline the processing of expense reports of remote salespersons. Review processes to determine if Pentel is taking full advantage of Oracle's functionality to fit their business needs. Do a feasibility study of the implementation of Oracle's Collection module. Review the accounting structure and recommend changes to fit best practices and eliminate redundancy in General Ledger. Troubleshoot any other related issues in finance and other departments. Manage their accounts receivable department to establish a credit and collections department. Archive and purge old data records. Correct data integrity issues with accounts receivable data.

Financials Lead, Glendale Community College (August 2003 – March 2004)

Implementing 11.5.9 Public Sector General Ledger, Accounts Payable, Accounts Receivable, Cash Management and Fixed Assets, Purchasing, iProcurement, Inventory, Financial Analyzer and Discoverer. Gathering business requirements through individual interviews with department heads and compiled current state, future state and gap analysis. Creating test scripts and conducting Conference Room Pilots. Working with the end-users and management to resolve issues and bridge business process gaps. Conducting end-user training. Write reports for financial reporting using OFA and Discoverer.

Financials Lead, Tobitsu America Corporation (October 2002 – August 2003)

Implemented **General Ledger, Accounts Payable, Accounts Receivable, Cash Management and Fixed Assets 11.5.8** for an international manufacturer and distributor of hardware and supplies. Gathered business requirements through individual interviews with department heads and compiled current state, future state and gap analysis. Created test scripts for Conference Room Pilots. Compiled training documents and conducted training of end users. Modified the Account Generator using Workflow and custom PL/SQL procedures to meet client requirements in Purchasing and Order Management. Created Discoverer reports for financial reporting and sales analysis. Modified standard Oracle Reports. Provided Post-Live support and help to resolve any user issues and requirements.

INV and PO Functional/Technical Lead, Cayman Island Government (January 2002 – September 2002)

Implement **Oracle 11i Purchasing and Inventory.** Gathered business requirements through individual interviews with department heads and compiled current state, future state and gap analysis. Set up Inventory and Purchasing. Created test scripts for Conference Room Pilots. Conduct CRP and review results and present findings to the review board for approval and/or modification. Compiled training documents and conducted training of end users. Designed, documented and wrote inventory item conversions and transactions from the legacy system utilizing PL/SQL, SQL*Plus, SQL and SQL*Loader. Created custom utility packages for use by other members of the technical team. Modified the Account Generator using Workflow and custom PL/SQL procedures to meet the unique charge account requirements for each type of purchase based on buyer, item, department and line type.

AP and PO Functional Lead, Johnson and Wales University (October 2001 – January 2002)

Fast Forward implementation of **Public Sector Accounts Payable, Purchasing and Cash Management.** Gathered business requirements and compiled gap analysis. Conducted future business process flows. Set up **Accounts Payable and Purchasing 11.03.** Conducted Conference room pilots and documented results. Compiled training documents and conducted training of end users. Interviewed and hired technical staff. Designed, documented and wrote conversions and interfaces to and from the legacy system utilizing PL/SQL, SQL*Plus, SQL and SQL*Loader. Troubleshoot the applications and corrected data integrity problems with the calendar, set of books. Troubleshoot Workflow using Workflow Builder 2.03. Designed FSG's and other custom financial reports for the accounting department.

Business and Technical Requirements Gathering, Telscape Communications (August 2001 – August 2001)

Gathered business requirements and process flows. **Evaluated various financial packages** and compared them to Oracle Applications. Analyzed hardware and technical requirements.

Project Manager, Functional and Technical, Motorola, Inc., Concord, Ca. (August 2000 – March 2001)

Completed business requirement analysis and gap analysis. Set up **Oracle GL, AP, AR, FA, INV and PO 11i** for the development team. Reviewed iProcurement and Web Requisitions to determine the additional set ups and documentation for 11i. Documented all set ups. Created new users. Managed a six-person Oracle development and functional implementation team. Interviewed and hired all technical and functional personnel. Developed and maintained project plans. Wrote test plans. Conducted conference room pilots. Designed a custom contract management system (CMS) and custom clearing and settlement system (CSS) based on NACHA guidelines including all forms, triggers and procedures using Oracle Developer 6i. Designed all interfaces to and from Oracle GL, AP, AR, FA, INV, PO Release 11i, custom system and Clarify. Created the ERD and all database objects for both custom systems.

Oracle Reports Consultant, Winston Tire Company, Inc., Burbank, Ca. (March 2000 – August 2000)

Designed a data repository to store point-of-sale data from 265 stores. Created the ERD and all database objects for the data repository. Designed custom financial and sales reports and modified **Oracle Financial Applications Release 11** standard reports. Designed FSG's for Financial Reporting. Evaluated Oracle Discoverer as a tool to deliver reports to upper management. Modified and tested interfaces to and from Oracle Accounts Receivable. Created a web front-end using ColdFusion, HTML and JavaScript to control the interfaces from the database repository and the Oracle Applications and submit web-based online reports. Help troubleshoot any errors with the Oracle Financial Applications.

CTARey Consulting – Newport, Ca.
March 1999 to March 2000

Oracle Consultant, Rogerson Aircraft, Inc., Irvine, Ca. – **(November 1999 – January 2000)**

Duties included troubleshooting a previous implementation of the Oracle Financials for a manufacturer of aviation equipment. Helped resolve issues related to financial reporting, month-end close and balancing. Helped end-users resolve issues and re-engineer processes to take advantage of the functionality of the Oracle application. **Modules included, AP, AR, GL, INV and PO Release 11.** Documented new set ups and procedures for month-end closing procedures.

Project Manager, JAMS Endispute, Inc., Irvine, Ca. – **(August 1999 – October 1999)**

Managed a project to convert the client from a fiscal year to a calendar year. Responsible for managing, estimating and project costing. Acted as the liaison between the technical teams and the client, as well as communicating schedules, deliverables and risks. Converted the client to multi-org. **Set up GL, AP and FA Release 10.7.** Documented all set ups. Wrote test scripts. Completed Business requirement analysis. Completed gap analysis. Responsible for writing the scripts to convert the assets into Oracle FA Mass Additions using PL/SQL procedures. Also implemented positive pay functionality for Oracle AP.

Project Manager, LPL, Inc., San Diego, Ca. – **(July 1999 – August 1999)**

Managed a project to implement positive pay functionality for **Oracle AP Release 11** with the Wells Fargo bank. Responsible for managing, estimating and project costing. Acted as the liaison between the technical teams and the client, as well as communicating schedules, deliverables and risks. Completed all of the functional set-ups for Oracle AP and Cash Management.

Functional and Technical Lead, Vical Pharmaceuticals, Inc., San Diego, Ca. – **(March 1999 – July 1999)**

Functional and technical lead in implementing **AP, PO and Web requisitions Release 11.** Duties included performing gap analysis, conference room pilots, design, application set-up and training end users. Created custom procedures and reports and modified HTML code to meet the web requisitions requirements using WebDB, Workflow Builder and Applications for the Web. Modified workflow to meet business requirements.

The Visionary Group – Dallas, TX.
January 1998 to March 1999

PO/AR/AP Functional Implementer, BATTIS, Inc., Zeeland, MI – **(September 1998 – March 1999)**

Functional lead for the **Release 11 Accounts Receivable, Accounts Payable and Purchasing** modules for a manufacturer and distributor of hangers. Duties included analysis, design, set-up and training end users. Reviewed standard functionality of workflow compared to Flexbuilder in Release 10.7 using Workflow Builder and assisted the customer in determining if modifications were required to the Change Order Workflow, PO Approval Workflow, PO Requisition Approval Workflow and the Send Notifications for Purchasing Documents Workflow. Assisted with other modules as needed.

INV Functional and Technical Lead, AMES, Inc., Parkersburg, WV – **(May 1998 – August 1998)**

Functional and Technical lead for the Inventory module for a manufacturer and distributor of lawn and garden equipment. Duties included gathering requirements, analysis, design and set-up. Assisting with other modules as needed. Lead in the designing and writing of interfaces, conversions and customizations to the INV module.

GL Solution Design, Exel, Inc. Columbus, OH – **(April 1998 – May 1998)**

Functioned as the lead functional consultant of **General Ledger Release 10.7.** Principal duties included mapping business requirements and identifying gaps to the Oracle GL module and designing FSG's.

AP Functional and Technical Lead, Party City, Rockaway, NJ – **(January 1998 – April 1998)**

Performed as the senior consultant in charge of **Accounts Payable** implementation at Party City, Incorporated, a retail organization with 100 plus stores specializing in party and holiday supplies. Duties included the analysis of present business procedures, the identification of gaps and determining the appropriate solutions. Other duties included training the end users and testing. Designed and assisted in the development of a custom application to automatically match the distribution lines of an invoice to a PO including the writing of triggers and interfaces to the AP Release 10.7 module using PL/SQL and Forms 4.5. Modified the check format and remittance advice to fit Party City's specifications using Reports 2.5.

Oracle Corporation - Atlanta, Ga.
March 1996 to October 1997

Functional and Technical Lead, CSX Transportation, Jacksonville, FL - **(April, 1997 - October, 1997)**

Acted as the technical lead in charge of interfaces and conversions to **Oracle General Ledger, Accounts Payable, Purchasing and Inventory Release 10.7** at CSX Transportation. Configured Oracle Web Requisitions, Oracle Web Customers and Oracle Web Suppliers for client demo. Reviewed the skills of potential contractors to access their fit for the project. Assist as needed with configuration issues and installations of clients in a distributed environment. Identified the standards, strategy and approach to interfaces and conversions. Acted as functional resource with General Ledger, Purchasing, Accounts Payable and Inventory as needed. Assisted with business requirements and gap analysis.

Oracle Inventory Implementer, Genicom, Waynesboro, VA - **(February, 1997 - April, 1997)**

Performed as the EDS Applications Support lead in the implementation of **Oracle Inventory Release 10.7** at Genicom, a printing equipment manufacturer in Waynesboro, VA. Among my duties were assisting the client with identifying gaps, designing multi-org solutions, addressing security within the system, assisting the new EDS DBA as needed, doing client installations and configuring workstations, and handling technical issues as they arose. Successfully configured Oracle Inventory and Oracle Purchasing to fit the client's multi-organizational business requirements.

Software Management, ALCOA, Pittsburgh, PA - **(August, 1996 - January, 1997)**

While a resource at Aluminum Company of America (Alcoa) in Pittsburgh, Pa., functioned as the Software Management contact in charge of setup, maintenance and installations of **Oracle Purchasing and Oracle Inventory Release 10.7** modules for the Supply Chain implementation. Duties also included identifying conflicts between the Order Fulfillment/Manufacturing setups and Purchasing and Inventory, installing client-side application software, troubleshooting application errors. Installed Oracle 7 Server for Windows NT and started the preliminary development of an application using Designer/2000 to track the various setups over the different sites and applications throughout the project.

Financial Analyzer, Accounts Payable and Purchasing Lead, Delta Airlines, Atlanta, GA - (May, 1996 to August 1996)

Did preliminary business analysis and requirements for **Financial Analyzer**. Constructed a demo of OFA on PCEExpress using the client's reports. Assisted in the rapid implementation of the Oracle Purchasing and Accounts Payable Release 10.7 modules at TransQuest Corporation. Also assisted in mapping and conversion of data.

LEAD Academy

Scope and Sequence Pacing Guide

Samples for Elementary, Middle & High School Grades
(Mathematics, ELA, and Chemistry)

GRADE 1

In Grade 1, instructional time should focus on four critical areas:

- (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20
- (2) developing understanding of whole number relationships and place value, including grouping in tens and ones
- (3) developing understanding of linear measurement and measuring lengths as iterating length units
- (4) reasoning about attributes of, and composing and decomposing geometric shapes

Important information regarding these four critical areas of instruction follows:

- (1) Students develop strategies for adding and subtracting whole numbers based on prior work with small numbers. They use a variety of models, including discrete objects and length-based models such as cubes connected to form lengths; to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction; and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction such as adding two is the same as counting on two. They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties such as “making tens” to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, students build their understanding of the relationship between addition and subtraction.
- (2) Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare whole numbers, at least to 100, to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones, especially recognizing the numbers 11 to 19 as composed of a ten and some ones. Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.
- (3) Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating, the mental activity of building up the length of an object with equal-sized units, and the transitivity principle for indirect measurement. Students should apply the principle of transitivity of measurement to make indirect comparisons, although they need not use this technical term.
- (4) Students compose and decompose plane or solid figures, including putting two triangles together to make a quadrilateral, and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different to develop the background for measurement and initial understandings of properties such as congruence and symmetry.

Standard

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. [1-OA1]
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. [1-OA2]
3. Apply properties of operations as strategies to add and subtract. (Students need not use formal terms for these properties.) [1-OA3]
4. Understand subtraction as an unknown-addend problem. [1-OA4]
5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). [1-OA5]
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$). [1-OA6]
7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. [1-OA7]
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. [1-OA8]
9. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. [1-NBT1]
10. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: [1-NBT2] a. 10 can be thought of as a bundle of ten ones, called a "ten." [1-NBT2a] b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. [1-NBT2b] c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). [1-NBT2c]
11. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$. [1-NBT3]
12. Add within 100, including adding a two-digit number and a one-digit number and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method, and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. [1-NBT4]
13. Given a two-digit number, mentally find 10 more or 10 less than the number without having to count; explain the reasoning used. [1-NBT5]
14. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method, and explain the reasoning used. [1-NBT6]
15. Order three objects by length; compare the lengths of two objects indirectly by using a third object. [1-MD1]
16. Express the length of an object as a whole number of length units by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps. [1-MD2]
17. Tell and write time in hours and half-hours using analog and digital clocks. [1-MD3]
18. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. [1-MD4]
19. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. [1-G1]
20. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. (Students do not need to learn formal names such as "right rectangular prism.") [1-G2]
21. Partition circles and rectangles into two and four equal shares; describe the shares using the words halves, fourths, and quarters; and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. [1-G3]

Quarter 1

Standard	Essential Questions Exemplars	Vocabulary	Assessment	Suggested Resources
<p>1.OA.1</p> <p>1.OA.2</p> <p>1.OA.3</p> <p>1.OA.5</p> <p>1.NBT.1</p> <p>1.MD.1</p> <p>1.MD.2</p>	<p><u>Domain: Operations and Algebraic Thinking</u> Explain different ways to count? Compare different ways to count and when each could be used. Why do we need to be able to count objects? What are efficient ways to count? (Use this question after students have been exposed to various ways of counting.)</p> <p><u>Domain: Numbers and Operations in Base Ten</u> Demonstrate different ways you can represent objects with a written numeral? Compare numeric representation with other representations (such as pictorial (drawing), concrete (actual objects), narrative, graphic, etc.) What do numbers convey? Explain why we need to be able to count to 100 in different ways. How can I count and write numerals past 100? What is place value? How can ones be grouped into other representations? How can a group of 10 ones be described mathematically? Explain the difference in the two digits in a two digit number. How do we use numbers in everyday activities? How many different ways can you find to solve the problem?</p>	<p>addition sum equations difference equal compose subtraction counting on decompose counting back addends subitizing number numeral ones tens place value two-digit numbers one more one less ten less</p>	<p>Daily Grades *Pre Assessment (site-based) Post Assessment</p>	

Quarter 2

Standard	Essential Questions Exemplars	Vocabulary	Assessment	Suggested Resources
<p>1.OA.1</p> <p>1.OA.3</p> <p>1.OA.4</p> <p>1.OA.5</p> <p>1.G.1</p> <p>1.G.2</p> <p>1.G.3</p>	<p><u>Domain: Operations and Algebraic Thinking</u> What are different ways to count? What are efficient ways to count? Why do we need to be able to count objects?</p> <p><u>Domain: Geometry</u> How do I compose shapes? Compare three dimensional shapes and relate them to real world objects. Describe attributes of three-dimensional shapes. How can we identify two-dimensional figures by their attributes? Create new shapes from given shapes. How do we compose new shapes from composite shapes created?</p> <p><u>Domain: Measurement and Data</u> How do we read and write time to the nearest hour? How do we read and write time to the nearest half hour? What is the difference between digital and analog clocks? Demonstrate how you would measure how long something takes.</p>	place value ten more ten less mental math compare expanded notation ones symbols greater than less than ten less unknown known making ten compose/decompose true faces doubles combinations equal signs false balanced equal data categories compose sphere cylinder/cone/cube composite shapes rectangular prism attributes plane figure closed/open figure part/whole two/three dimensional	Daily Grades *Pre Assessment (site-based) Post Assessment	<p>http://www.k-5mathteachingresources.com/</p> <p>Refer to pages 8-10</p>

Quarter 3

Standard	Essential Questions Exemplars	Vocabulary	Assessment	Suggested Resources
<p>1.OA.3</p> <p>1.OA.6</p> <p>1.OA.7</p> <p>1.OA.8</p>	<p><u>Domain: Numbers and Operations in Base Ten</u> Create sets of ten to illustrate numbers. What grouping strategies can be used to identify numbers? How can objects be grouped to show numbers to 100. How can numbers be written in different ways using tens and ones? How can we order numbers to 100 using our knowledge of place value? How many ways can you count to 120? Does the placement of a digit in a number change its value? Describe your thinking when you find one more or one less. Describe your thinking when you find ten more or ten less? How can I easily add or subtract by 10's within 90? What are numbers 11-19 composed of? How can the numbers 11-19 be decomposed? Evaluate different ways to add within 100? How can large quantities be counted effectively?</p> <p><u>Domain: Operations and Algebraic Thinking</u> Evaluate strategies used to solve problems and represent the strategy chosen and explain why it works. When do I use the commutative property? Associative property? Explain what an equal sign means. Does the sum of an equation go in front of or behind the equal sign? What does an equal sign mean in an equation? Write equations in many different ways. Can I solve a problem with a missing whole number in the equation?</p> <p><u>Domain: Geometry</u> Explain equal shares using halves and fourths. Compare the use of the words fourths and quarters in describing partitioned shapes. What happens when I decompose shapes? Why would shares need to be equal when partitioning shapes? How can objects be divided into equal shares?</p>	<p>two-digits one-digit represent compare <, >, = compose mental math unknown operations equations adding to taking from comparing equal sign true/false organize data how many more how many less category collect same partition fourths describe quarters halves decomposing equal shares</p>	<p>Daily Grades *Pre Assessment (site-based) Post Assessment</p>	<p>http://www.k-5mathteachingresources.com/</p> <p>Refer to pages 8-10</p>

Quarter 4

Standard	Essential Questions Exemplars	Vocabulary	Assessment	Suggested Resources
<p>1.NBT.2</p> <p>1.NBT.2a</p> <p>1.NBT.2b</p> <p>1.NBT.2c</p> <p>1.NBT.3</p> <p>1.NBT.4</p> <p>1.NBT.5</p> <p>1.NBT.6</p> <p>1.MD.3</p> <p>1.MD.4</p>	<p><u>Domain: Operations and Algebraic Thinking</u></p> <p>Explain how “adding to” and “putting together” are alike and how they are different.</p> <p>Is taking apart and taking from the same action?</p> <p>Represent a word problem in many different ways.</p> <p>What is the commutative property?</p> <p>What is the associative property?</p> <p>Will all equations be true? How do you know?</p> <p>How can fact fluency help you solve problems?</p> <p><u>Domain: Geometry</u></p> <p>When would I use the word halves?</p> <p>When would I use the word fourths?</p> <p>When would I use the word quarters?</p> <p>What happens when I decompose shapes?</p> <p>Do shares need to be equal when partitioning shapes?</p> <p><u>Domain: Numbers and Operations in Base Ten</u></p> <p>How can we create sets of 10 and use objects to describe numbers?</p> <p>How can we make groups of tens and ones?</p> <p>How can we show numbers to 100 using tens and ones?</p> <p>How can we write numbers in different ways?</p> <p>How can we order numbers to 100 using our knowledge of place value?</p> <p>How can we count to 120 other than just by ones?</p> <p>Does the placement of a digit in a number change its value?</p> <p>How can you mentally find one more, one less?</p> <p>How can you mentally find ten more, ten less?</p> <p>How can I easily add or subtract by 10’s within 90?</p> <p>What are numbers 11-19 composed of?</p> <p>What are the ways I can add within 100?</p> <p>How can large quantities be counted efficiently?</p> <p><u>Domain: Measurement and Data</u></p> <p>How do we read and write time to the nearest hour?</p> <p>How do we read and write time to the nearest half hour?</p> <p>What is the difference between digital and analog clocks?</p> <p>What can we use to measure how long something takes?</p> <p>What does it mean to measure without gaps?</p> <p>What is length?</p> <p>When I measure indirectly what tools can I use?</p>	<p>two-digits</p> <p>one-digit</p> <p>represent</p> <p>compare</p> <p><, >, =</p> <p>Compose/decompose</p> <p>tens</p> <p>ones</p> <p>mental math</p> <p>multiples</p> <p>concrete models</p> <p>known/unknown</p> <p>making ten</p> <p>true/false</p> <p>equal sign</p> <p>combinations</p> <p>operations</p> <p>equations</p> <p>commutative</p> <p>property</p> <p>associative property</p> <p>relate</p> <p>fluency</p> <p>equal shares</p> <p>halves</p> <p>describe</p> <p>partition</p> <p>fourths</p> <p>clock</p> <p>iterate</p> <p>indirect</p> <p>measurement</p> <p>hour</p> <p>half-hour</p> <p>analog</p> <p>minutes</p>	<p>Daily Grades</p> <p>*Pre Assessment</p> <p>(site-based)</p> <p>Post Assessment</p>	<p>http://www.k-5mathteachingresources.com/</p> <p>Refer to pages 8-10</p>

Table 1

ADDITION AND SUBTRACTION SITUATIONS SITUATION

SITUATION	Result Unknown	Change Unknown	Start Unknown
Add To	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? $2 + 3 = ?$	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? $2 + ? = 5$	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? $? + 3 = 5$
Take From	Five apples were on the table. I ate two apples. How many apples are on the table now? $5 - 2 = ?$	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? $5 - ? = 3$	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $? - 2 = 3$
SITUATION	Total Unknown	Addend Unknown	Both Addends Unknown <small>(These take-apart situations can be used to show all the decompositions of a given number. The associated equations, which have the total on the left of the equal sign, help children understand that the = sign does not always mean makes or results in, but always does mean is the same number as.)</small>
Put Together/ Take Apart (Either addend can be unknown, so there are three variations of these problem situations. Both Addends Unknown is a productive extension of this basic situation, especially for small numbers less than or equal to 10.)	Three red apples and two green apples are on the table. How many apples are on the table? $3 + 2 = ?$	Five apples are on the table. Three are red and the rest are green. How many apples are green? $3 + ? = 5, 5 - 3 = ?$	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? $5 = 0 + 5, 5 = 5 + 0$ $5 = 1 + 4, 5 = 4 + 1$ $5 = 2 + 3, 5 = 3 + 2$
SITUATION	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare (For the Bigger Unknown or Smaller Unknown situations, one version directs the correct operation (the version using more for the bigger unknown and using less for the smaller unknown). The other versions are more difficult.)	(Version with “How many more?”): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? (Version with “How many fewer?”): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? $2 + ? = 5, 5 - 2 = ?$	(Version with “more”): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with “fewer”): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? $2 + 3 = ?, 3 + 2 = ?$	(Version with “more”): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (Version with “fewer”): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? $5 - 3 = ?, ? + 3 = 5$

Suggested Resources for Educators and Administrators

- <https://www.engageny.org/>
- Principles to Action
Developed by the National Council of Teachers of Mathematics (NCTM) to support the CCSS and show “How” the standards can be effectively assimilated in the school and classroom.
- Share My Lesson
Developed by the American Federation of Teachers and TES Connect, Share My Lesson’s Common Core Information Center offers facts, figures, and tips about the CCSS and high-quality resources aligned to the standards across all subjects.
- Teaching Channel
Teaching Channel offers a free library of high-quality videos featuring real teachers demonstrating their best educational practices. The large library of CCSS videos includes tags that specify the exact standards to which a lesson is aligned.
- Common Core in Practice: Great Teachers Demonstrate Moving to Deeper Learning
America Achieves developed a series of videos demonstrating effective instruction aligned to the Common Core. These five videos show how teachers are putting the new standards into practice in their classrooms and how enthusiastically their students are responding.
- Student Achievement Partners
Student Achievement Partners’ website offers a variety of free, high-quality materials to help educators align their instruction to the Common Core State Standards and raise student achievement. Resources include materials and guides aligned to the standards, essential actions for school and district leaders, professional development modules, and information on how educators can support the CCSS outside of the school.
- <http://www-k6.thinkcentral.com/ePC/start.do>
- <https://www.livebinders.com/play/play?id=293498>
- <http://www.mathworksheetsland.com/tests.html>
- <http://www.illuminations.nctm.org>

Resources

Literature Connections

1. *Even Steven and Odd Todd, A Hello Math Reader*
2. *10 For Dinner* by Jo Ellen Bogart
3. *More Than One* by Miriam Schlein
4. *Counting On Calico* by Phyllis Limbacher Tildes
5. *Mission Addition* by Loreen Leedy
6. *Mall Mania* by Stuart Murphy
7. *Count on Pablo* by Barbara Rubertis
8. *Henry Hikes to Fitchburg* by DB Johnson
9. *Lessons That Count, Math Fables* by Greg Tang
10. *Cats Add Up!* by Dianne Ochiltree
11. *Six Empty Pockets* by Matt Curtis
12. *Katy No-Pockets* by Emmy Payne
13. *Tiger Math* by Ann Whitehead Nagda & Cindy Bickel
14. *The Button Box* by Margarette Reid
15. *Graphs* by Bonnie Bader
16. *Bart's Amazing Charts* by Dianne Ochiltree
17. *Harcourt Reading Book, 2nd grade, has Stuart Murphy's graphing story, Lemonade For Sale.*
18. *The Missing Birthday Party* by Joanne Rocklin
19. *One Hundred Hungry Ants* by Elinor J Pinczes
20. *How High Can A Dinosaur Count? & Other*
21. *Math Mysteries* by Valorie Fisher
22. *Monster Math* by Polly Powell
23. *One Hundred Ways to 100* by Jerry Pallotta
24. *The Case of the Shrunken Allowance* by Joanne Rocklin
25. *Pigs Go To Market, Halloween Fun with*
26. *Math and Shopping* by Amy Axelrod
27. *Ultimate Kid's Money Book* by Neale S. Godfrey
28. *Inch by Inch* by Leo Lionni
29. *Me and the Measure of Things* by Joan Sweeney
30. *Hershey's Weights and Measures* by Jerry Pallotta

31. *Much Bigger Than Martin* by Steven Kellogg
32. *How Big is a Foot?* by Rolf Myller
33. *Chickens on the Move* by Pam Pollack
34. *Sam's Sneaker Squares* by Nat Gabriel
35. *Inchworm and A Half* by Elinor J. Pinczes
36. *The Fattest, Tallest, Biggest Snowman Ever* by Bettina Ling
37. *Pigs in the Pantry, Fun with Math and Cooking* by Amy Axelrod
38. *Millions to Measure* by David M. Schwartz
39. *Measuring Penny* by Loreen Leedy
40. *Super Sand Castle Saturday* by Stuart J. Murphy
41. *What Time Is It?, A Hello Math Reader* by Sheila Keenan
42. *Tick Around the Clock* by Margaret Holland
43. *Just A Minute* by Teddy Salter
44. *What Time Is It Mr. Crocodile?* by Judy Sierrra
45. *Game Time!* by Stuart Murphy
46. *How Much is a Million?* by David M. Schwartz
47. *How Much, How Many, How Far, How Heavy,*
48. *How Tall is 1000?* by Helen Nolan
49. *Big Numbers* by Edward Packard
50. *Shark Swimathon* by Stuart Murphy
51. *Elevator Magic* by Stuart J. Murphy
52. *Mall Mania* by Stuart J. Murphy
53. *A Fair Bear Share* by Stuart Murphy
54. *The Greedy Triangle* by Marilyn Burns
55. *Grandfather Tang's Story* by Ann Tompert
56. *Three Pigs, One Wolf, and Seven Magic Shapes* by Grace Maccarone
57. *The Silly Story of Goldie Locks and the Three Squares* by Grace Maccarone
58. *Shape Up* by David A. Adles
59. *Eating Fractions* by Bruce McMillian
60. *The Hershey's Fractions Book* by Jerry Pallotta

READING & WRITING FOR 6th GRADE ELA

READING LITERATURE (RL)

Key Ideas and Details

1. RL.6.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
2. RL.6.2 Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
3. RL.6.3 Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how characters respond or change as the plot moves toward a resolution.

Craft and Structure

4. RL.6.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.
5. RL.6.5 Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
6. RL.6.6 Explain how an author develops the point of view of the narrator or speaker in a text.

Integration of Knowledge and Ideas

7. RL.6.7 Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch.
8. Differentiate among odes, ballads, epic poetry, and science fiction.
9. RL.6.9 Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.

Range of Reading and Text Complexity

10. RL.6.10 By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

READING & WRITING FOR 6th GRADE ELA (Cont.)

READING INFORMATIONAL TEXT (RI)

Key Ideas and Details

11. RI.6.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
12. RI.6.2 Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
13. RI.6.3 Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).

Craft and Structure

14. RI.6.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
15. RI.6.5 Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
16. RI.6.6 Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.

Integration of Knowledge and Ideas

17. RI.6.7 Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
18. RI.6.8 Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
19. RI.6.9 Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).

Informational – Range of Reading and Text Complexity

20. RI.6.10 By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

READING & WRITING FOR 6th GRADE ELA (Cont.)

WRITING

Text Types and Purposes

21. W.6.1 Write arguments to support claims with clear reasons and relevant evidence.

a. Introduce a claim(s) and organize the reasons and evidence clearly.

b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.

c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.

d. Establish and maintain a formal style.

e. Provide a concluding statement or section that follows from the argument presented.

22. W.6.2 Write informative/ explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

a. Introduce a topic, organize ideas, concepts, and information, using strategies such as definition, classification, comparison/ contrast, and cause/ effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

c. Use appropriate transitions to clarify the relationships among ideas and concepts.

d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

e. Establish and maintain a formal style

f. Provide a concluding statement or section that follows from the information or explanation presented.

READING & WRITING FOR 6th GRADE ELA (Cont.)

23. W.6.3 Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

a. Engage and orient the reader by establishing a context and introducing a narrator and/ or characters; organize an event sequence that unfolds naturally and logically.

b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/ or characters.

c. Use a variety of transition words, phrases and clauses to convey sequence and signal shifts from one time frame or setting to another.

d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events

e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

24. Provide a conclusion that follows from the narrated experiences or events.

25. W.6.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

26. W.6.6 Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

Research to Build and Present Knowledge

27. W.6.7 Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

28. W.6.8 Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.

29. W.6.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

a. Apply *Grade 6 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]").

b. Apply *Grade 6 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]")

30. W.6.10 Write routinely over extended time frames, including time for research, reflection, and revision, and shorter time frames such as a single sitting or a day or two for a range of discipline-specific tasks, purposes, and audiences.

KEY

I = Introduced, first time a concept is presented

R = Reinforced, standard is reviewed throughout quarter **M** = Mastered, will be assessed on this concept

* = Continued Practice Required for Next Grade Level **I/M** = Portion of the standard is taught and assessed

CHEMISTRY

Scope and Sequence

1st Nine Weeks

ALCOS Content Standard	Standard	Content Standard Identifiers	ACT Readiness Standards
1	Obtain and communicate information from historical experiments (e.g., work by Mendeleev and Moseley, Rutherford's gold foil experiment, Thomson's cathode ray experiment, Millikan's oil drop experiment, Bohr's interpretation of bright line spectra) to determine the structure and function of an atom and to analyze the patterns represented in the periodic table		
2	Develop and use models of atomic nuclei to explain why the abundance-weighted average of isotopes of an element yields the published atomic mass.		
3	Use the periodic table as a systematic representation to predict properties of elements based on their valence electron arrangement. a. Analyze data such as physical properties to explain periodic trends of the elements, including metal/nonmetal/metalloid behavior, electrical/heat conductivity, electronegativity and electron affinity, ionization energy, and atomic-covalent/ionic radii, and how they relate to position in the periodic table.		
4	Plan and conduct an investigation to classify properties of matter as intensive (e.g., density, viscosity, specific heat, melting point, boiling point) or extensive (e.g., mass, volume, heat) and demonstrate how intensive properties can be used to identify a compound		

Chemistry
2nd Nine Weeks

ALCOS Content Standard	Standard	Content Standard Identifiers	ACT Readiness Standards
3	<p>Use the periodic table as a systematic representation to predict properties of elements based on their valence electron arrangement.</p> <p>b. Develop and use models (e.g., Lewis dot, 3-D ball-and-stick, space-filling, valence-shell electron-pair repulsion [VSEPR]) to predict the type of bonding and shape of simple compounds.</p> <p>c. Use the periodic table as a model to derive formulas and names of ionic and covalent compounds.</p>		
5	<p>Plan and conduct investigations to demonstrate different types of simple chemical reactions based on valence electron arrangements of the reactants and determine the quantity of products and reactants.</p> <p>a. Use mathematics and computational thinking to represent the ratio of reactants and products in terms of masses, molecules, and moles.</p> <p>b. Use mathematics and computational thinking to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.</p>		
9	<p>Analyze and interpret data (e.g., melting point, boiling point, solubility, phase-change diagrams) to compare the strength of intermolecular forces and how these forces affect physical properties and changes.</p>		
6	<p>c. Design and conduct experiments to test the conductivity of common ionic and covalent substances in a solution.</p>		

Chemistry
3rd Nine Weeks

ALCOS Content Standard	Standard	Content Standard Identifiers	ACT Readiness Standards
4	Plan and conduct an investigation to classify properties of matter as intensive (e.g., density, viscosity, specific heat, melting point, boiling point) or extensive (e.g., mass, volume, heat) and demonstrate how intensive properties can be used to identify a compound.		
6	Use mathematics and computational thinking to express the concentrations of solutions quantitatively using molarity. a. Develop and use models to explain how solutes are dissolved in solvents. b. Analyze and interpret data to explain effects of temperature on the solubility of solid, liquid, and gaseous solutes in a solvent and the effects of pressure on the solubility of gaseous solutes.		
7	Plan and carry out investigations to explain the behavior of ideal gases in terms of pressure, volume, temperature, and number of particles. a. Use mathematics to describe the relationships among pressure, temperature, and volume of an enclosed gas when only the amount of gas is constant. b. Use mathematical and computational thinking based on the ideal gas law to determine molar quantities.		
10	Plan and conduct experiments that demonstrate how changes in a system (e.g., phase changes, pressure of a gas) validate the kinetic molecular theory. a. Develop a model to explain the relationship between the average kinetic energy of the particles in a substance and the temperature of the substance (e.g., no kinetic energy equaling absolute zero [0K or -273.15oC]).		

Chemistry
4th Nine Weeks

ALCOS Content Standard	Standard	Content Standard Identifiers	ACT Readiness Standards
6	d. Use the concept of pH as a model to predict the relative properties of strong, weak, concentrated, and dilute acids and bases (e.g., Arrhenius and Brønsted-Lowry acids and bases).		
8	Refine the design of a given chemical system to illustrate how LeChâtelier's principle affects a dynamic chemical equilibrium when subjected to an outside stress (e.g., heating and cooling a saturated sugar-water solution).*		
11	Construct an explanation that describes how the release or absorption of energy from a system depends upon changes in the components of the system. a. Develop a model to illustrate how the changes in total bond energy determine whether a chemical reaction is endothermic or exothermic. b. Plan and conduct an investigation that demonstrates the transfer of thermal energy in a closed system (e.g., using heat capacities of two components of differing temperatures).		

ATTACHMENT-2

Description of LEAD Academy Curriculum

Core Subjects and Technology

Description of LEAD Academy Curriculum

Core Subjects and Technology

English/Language Arts

K-5 ELA Curriculum

“Whatever the form- poem, novel, drama, biography, essay – literature makes comprehensible the myriad ways in which human beings meet the infinite possibilities that life has to offer.” – Louise M. Rosenblatt

LEAD Academy’s goal is to develop students with strong literacy skills, allowing for reading and writing in multiple genres, as well as effective in all modes of communication. In accordance with the National Council of Teachers of English position statement on the 21st Century Literacies, we expect HSE students to:

- Develop Proficiency with the tools of technology
- Build relationships with others to pose and solve problems collaboratively and cross-culturally
- Design and share information for global communities to meet a variety of purposes
- Manage, analyze, and synthesize multiple streams of simultaneous information
- Create, critique, analyze, and evaluate multi-media texts
- Attend to the ethical responsibilities required by these complex environments

To support this goal, we provide students with high-quality instruction in a variety of texts, genres, and various modes of access to these texts. Our approach to reading and writing instruction follows the balanced literacy model of instruction, teaching through the reader’s and writer’s workshop method. Teachers deliver lessons using the gradual release model of instruction, first modeling skills and strategies in reading and writing, followed by a scaffolded instruction phase where students and teachers work in collaboration toward student independence. Through the gradual released method of instruction, students gain the skills and confidence necessary for independent work. Students invest significant time in reading and writing from self-selected texts and topics to develop strong literacy skills and capitalize on the power of engagement which is essential in developing life-long readers.

The reading and writing curriculum is based on locally developed curriculum, aligned with the Alabama College and Career-Ready Standards (CCRS). The curriculum is dynamic and refined to meet the needs of all students. By nature of the reader’s and writer’s workshop, all students are provided opportunities to refine skills to their highest potential. Teacher support and peer collaboration are always available. Students are provided with ample time for whole group, small group, and side-by-side instruction in reading and writing.

6-12 ELA Curriculum

At LEAD Academy, secondary English language arts instruction focuses on developing students as readers and writers through authentic literacy experiences. Reading and writing are linked together, as students consume critique and produce texts in multiple genres. Students are given choices of texts they can and want to read. The majority of classroom time is spent immersing students in reading and writing. The teacher supports student learning through modeling new skills, working closely with small groups, and conferring with students one on one. Teachers provide ample time for purposeful and thoughtful student to student and student to teacher talk. Instruction is differentiated based on the needs of individual students. Authentic assessment at each phase of the learning process informs instruction. ELA Curriculum teams will modify the curriculum based on CCRS.

Mathematics

K-5 Mathematics Curriculum

Teachers use a variety of supplemental and instructional materials to produce a curriculum rich in hands-on and high level learning opportunities for our students. The math instruction provides the students with regular opportunities to make real-life applications to daily math lessons. The K-5 mathematics standards provide students with a solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals—which help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into applications.

6-12 Mathematics Curriculum

The middle school standards are robust and provide a coherent and rich preparation for high school mathematics. Teachers frequently use manipulatives to move students' understanding from concrete to abstract level. The high school standards call on students to practice applying mathematical ways of thinking to real world issues and challenges; they prepare students to think and reason mathematically. High school mathematics curriculum emphasizes mathematical modeling, use of mathematics and statistics to analyze real life situations.

Science

K-8 Science Curriculum

According to the National Academic Press,

At LEAD Academy, our goal is to develop scientifically literate students. Looking at 21st Century skills, we expect our students to:

- Communicate effectively
- Work cooperatively
- Think critically and creatively

- Use technology effectively
- Grow as self-directed learners

To support this goal, we focus on student-centered learning, with applications in real life situations. Students are engaged in research and investigation activities conducted individually or in small groups. Teachers provide a framework within which students meet engineering challenges and design solutions to everyday life problems, while developing academic language.

This framework is based on a locally developed curriculum, aligned with the CCRS. The curriculum is STREAMS education influenced and provides assessments to gauge student progress, intervention tools, acceleration materials, and teacher support resources. Technology is used as a tool to help all students actively learn scientific concepts.

In our Elementary science classrooms, we focus more on building literacy skills. In our Secondary science classrooms, we challenge the students to develop communication and collaboration skills. Among other activities, students are encouraged to create PowerPoint presentation, videos to upload into YouTube, create podcasts, and visit interactive sites to practice scientific concepts.

9-12 Science Curriculum

LEAD Academy will use locally developed science curriculum that will be aligned to CCRS. Inquiry will be the driving force of the curriculum. Our teachers “don’t explain the concepts before they have the students explore the facts. The curriculum model is student-centered and uses inquiry based teaching. Our teachers frequently use 5E model lessons along with explore/application investigations. Also, they use many PBL and collaborative learning lessons. The curriculum framework provides hands-on inquiry activities, assessments, problem-based-learning, intervention tools, acceleration materials, and teacher support resources.

We also use technology effectively in high school science classes. Students use Vernier and Pasco’s data collection equipment in the experiments. We also design a variety of opportunities for students to take learning “beyond the classroom” and see how today’s instruction connects to career and lifelong learning. High school students will design an experiment or demonstration about a STEM topic of their choice with the help of technology. Throughout the course of the project students learn to use the scientific method, work with peers and experts, teach their classmates about their topics, and ultimately communicate their process and findings on a website, including explanations of their scientific process, a brochure, and a movie of their project. Students’ share their high-quality projects in on-site exhibits, on web-based platforms, and at local, state, and national science or STEM fairs. These projects lead to mastery of critical content through a deeply engaging process that also develops students’ higher order thinking skills, as well as critical skills such as teamwork, communication, perseverance, creativity, and problem solving.

Social Studies

K-5 Social Studies Curriculum

Our goal is to develop students with the social studies skills that will allow students to experience and explore the social sciences. A key focus for the academic structure of our social studies curriculum examines the needs for students to build the skill necessary for the 21st Century skills, we expect our students to:

- Communicate effectively
- Be Innovative
- Collaborate with peers
- Present Ideas in a clear concise way
- Use technology efficiently in all aspects of the above skills

To support these goals, our Social Studies curriculum and framework is based and aligned with CCRS. The curriculum is built around six teaching strategies; Visual Discovery, Social Studies Skill Builders, Experiential Exercises, Writing for Understanding, Response Groups, and Problem Solving Group work each designed to bring learning to life and to support the 21st century skills we expect our students to take with them when they graduate from LEAD Academy.

The developed curriculum uses many research-based instructional designs including Understanding by Design, Multiple Intelligences, and Spiral Curriculum. Each lesson contains an interactive presentation that teachers can use in a traditional format or can use with interactive white boards or smart boards. In addition to tying each lesson to literacy standards there are also recommendations for English Language Learners and for Enrichment.

In our Elementary social studies classrooms, students will collaborate with their peers, research and discover social studies concepts through the hands on and project based instruction.

6-12 Social Studies Curriculum

The Social Studies programs at LEAD Academy are designed to meet the needs of the 21st century student. We believe that today's learners, arguably more so than at any other time, need;

- strong critical thinking skills
- strong data management skills
- ability to assess facts from opinions
- to understand cause and affect
- to understand how perception of issues change over time

Through our courses offered in world cultures, geography, history, government and the social sciences, students will learn how to apply these skills with the rapidly changing technology used in the 21st century to be successful. The school will use its own locally developed curriculum that will be aligned to the CCRS.

Technology and Digital Literacy Curriculum

Technology and digital literacy are the keys to the 21st century. LEAD Academy will integrate 21st century skill building into teaching. This curriculum helps students and teachers efficiently learn technology skills, digital literacy, and higher-order thinking as they study and learn core curriculum. A comprehensive curriculum provides classroom teachers with resources and tools needed to engage 21st century learners, implement NETS-S standards of International Society for Technology in Education (ISTE), support national and state technology standards, support technology and 21st century skills that are present in core curriculum standards, comfortably use technology in the classroom.

The curriculum also includes a comprehensive NETS-T professional development curriculum for teachers. With units for each of the 20 NETS-T performance indicators, teachers will master the skills they need. This enables teachers to use 21st century teaching skills and technology in the classroom and in their careers.

ATTACHMENT-3

Learning Standards

Kindergarten

Students will:

Reading Standards for Literature

Key Ideas and Details

1. With prompting and support, ask and answer questions about key details in a text. [RL.K.1] a. Make predictions to determine main idea and anticipate an ending.
2. With prompting and support, retell familiar stories, including key details. [RL.K.2]
3. With prompting and support, identify characters, settings, and major events in a story. [RL.K.3]

Craft and Structure

4. Ask and answer questions about unknown words in a text. [RL.K.4]
5. Recognize common types of texts (e.g., storybooks, poems). [RL.K.5]
6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story. [RL.K.6]

Integration of Knowledge and Ideas

7. With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts). [RL.K.7]
8. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories. [RL.K.9]

Range of Reading and Level of Text Complexity

9. Actively engage in group reading activities with purpose and understanding. [RL.K.10]

Reading Standards for Informational Text

Key Ideas and Details

10. With prompting and support, ask and answer questions about key details in a text. [RI.K.1]
11. With prompting and support, identify the main topic and retell key details of a text. [RI.K.2]
12. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. [RI.K.3]

Craft and Structure

13. With prompting and support, ask and answer questions about unknown words in a text. [RI.K.4]
14. Identify the front cover, back cover, and title page of a book. [RI.K.5]
15. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. [RI.K.6]

Integration of Knowledge and Ideas

16. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). [RI.K.7]
17. With prompting and support, identify the reasons an author gives to support points in a text. [RI.K.8]
18. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). [RI.K.9]

Range of Reading and Level of Text Complexity

19. Actively engage in group reading activities with purpose and understanding. [RI.K.10]

Reading Standards: Foundational Skills

Print Concepts

20. Demonstrate understanding of the organization and basic features of print. [RF.K.1]
 - a. Follow words from left to right, top to bottom, and page by page. [RF.K.1a]
 - b. Recognize that spoken words are represented in written language by specific sequences of letters. [RF.K.1b]
 - c. Understand that words are separated by spaces in print. [RF.K.1c]
 - d. Recognize and name all uppercase and lowercase letters of the alphabet. [RF.K.1d]

Phonological Awareness

21. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). [RF.K.2]
 - a. Recognize and produce rhyming words. [RF.K.2a]
 - b. Count, pronounce, blend, and segment syllables in spoken words. [RF.K.2b]
 - c. Blend and segment onsets and rimes of single-syllable spoken words. [RF.K.2c]
 - d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words. (This does not include CVCs ending with /l/, /r/, or /x/.) (Words, syllables, or phonemes written in /slashes/ refer to their pronunciation or phonology. Thus, /CVC/ is a word with three phonemes regardless of the number of letters in the spelling of the word.) [RF.K.2d]
 - e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words. [RF.K.2e]

Phonics and Word Recognition

22. Know and apply grade-level phonics and word analysis skills in decoding words. [RF.K.3]
- Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sounds for each consonant. [RF.K.3a]
 - Associate the long and short sounds with common spellings (graphemes) for the five major vowels. [RF.K.3b]
 - Read common high-frequency words by sight (e.g., *the, of, to, you, she, my, is, are, do, does*). [RF.K.3c]
 - Distinguish between similarly spelled words by identifying the sounds of the letters that differ. [RF.K.3d]

Fluency

23. Read emergent-reader texts with purpose and understanding. [RF.K.4]

Writing Standards

Text Types and Purposes

24. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., *My favorite book is . . .*). [W.K.1]
25. Use a combination of drawing, dictating, and writing to compose informative or explanatory texts in which they name what they are writing about and supply some information about the topic. [W.K.2]
26. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. [W.K.3]

Production and Distribution of Writing

27. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. [W.K.5]
28. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. [W.K.6]

Research to Build and Present Knowledge

29. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). [W.K.7]

30. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. [W.K.8]

Speaking and Listening Standards

Comprehension and Collaboration

31. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups. [SL.K.1]
- Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). [SL.K.1a]
 - Continue a conversation through multiple exchanges. [SL.K.1b]
32. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. [SL.K.2]
33. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. [SL.K.3]

Presentation of Knowledge and Ideas

34. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. [SL.K.4]
35. Add drawings or other visual displays to descriptions as desired to provide additional detail. [SL.K.5]
36. Speak audibly and express thoughts, feelings, and ideas clearly. [SL.K.6]

Language Standards

Conventions of Standard English

37. Begin to demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.K.1]
- Print many uppercase and lowercase letters. [L.K.1a]
 - Use frequently occurring nouns and verbs. [L.K.1b]
 - Form regular plural nouns orally by adding /s/ or /es/ (e.g., *dog, dogs; wish, wishes*). [L.K.1c]
 - Understand and use question words (interrogatives) (e.g., *who, what, where, when, why, how*). [L.K.1d]
 - Use the most frequently occurring prepositions (e.g., *to, from, in, out, on, off, for, of, by, with*). [L.K.1e]
 - Produce and expand complete sentences in shared language activities. [L.K.1f]

38. Begin to develop command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.K.2]
- Capitalize the first word in a sentence and the pronoun *I*. [L.K.2a]
 - Recognize and name end punctuation. [L.K.2b]
 - Write a letter or letters for most consonant and short-vowel sounds (phonemes). [L.K.2c]
 - Spell simple words phonetically, drawing on knowledge of sound-letter relationships. [L.K.2d]

Vocabulary Acquisition and Use

39. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *kindergarten reading and content*. [L.K.4]
- Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* is a bird and learning the verb *to duck*). [L.K.4a]
 - Use the most frequently occurring inflections and affixes (e.g., *-ed*, *-s*, *re-*, *un-*, *pre-*, *-ful*, *-less*) as a clue to the meaning of an unknown word. [L.K.4b]
40. With guidance and support from adults, explore word relationships and nuances in word meanings. [L.K.5]
- Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. [L.K.5a]
 - Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). [L.K.5b]
 - Identify real-life connections between words and their use (e.g., note places at school that are *colorful*). [L.K.5c]
 - Distinguish shades of meaning among verbs describing the same general action (e.g., *walk*, *march*, *strut*, *prance*) by acting out the meanings. [L.K.5d]
41. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. [L.K.6]

Grade 1

Students will:

Reading Standards for Literature

Key Ideas and Details

1. Ask and answer questions about key details in a text. [RL.1.1]
 - a. Make predictions from text clues. [RL.1.1]
2. Retell stories, including key details, and demonstrate understanding of their central message or lesson. [RL.1.2]
3. Describe characters, settings, and major events in a story, using key details. [RL.1.3]

Craft and Structure

4. Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. [RL.1.4]
5. Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. [RL.1.5]
6. Identify who is telling the story at various points in a text. [RL.1.6]

Integration of Knowledge and Ideas

7. Use illustrations and details in a story to describe its characters, setting, or events. [RL.1.7]
8. Compare and contrast the adventures and experiences of characters in stories. [RL.1.9]

Range of Reading and Level of Text Complexity

9. With prompting and support, read prose and poetry of appropriate complexity for Grade 1. [RL.1.10]

Reading Standards for Informational Text

Key Ideas and Details

10. Ask and answer questions about key details in a text. [RI.1.1]
11. Identify the main topic and retell key details of a text. [RI.1.2]
12. Describe the connection between two individuals, events, ideas, or pieces of information in a text. [RI.1.3]

Craft and Structure

13. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. [RI.1.4]
14. Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text. [RI.1.5]
15. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. [RI.1.6]

Integration of Knowledge and Ideas

16. Use the illustrations and details in a text to describe its key ideas. [RI.1.7]
17. Identify the reasons an author gives to support points in a text (e.g., eating a balanced meal, obeying safety rules, engaging in recycling projects) [RI.1.8]
18. Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). [RI.1.9]

Range of Reading and Level of Text Complexity

19. With prompting and support, read informational texts appropriately complex for Grade 1. [RI.1.10]

Reading Standards: Foundational Skills

Print Concepts

20. Demonstrate understanding of the organization and basic features of print. [RF.1.1] a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation). [RF.1.1a]

Phonological Awareness

21. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). [RF.1.2]
 - a. Distinguish long from short vowel sounds in spoken single-syllable words. [RF.1.2a]
 - b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends. [RF.1.2b]
 - c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. [RF.1.2c]
 - d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes). [RF.1.2d]

Phonics and Word Recognition


22. Know and apply grade-level phonics and word analysis skills in decoding words. [RF.1.3]
 - a. Know the spelling-sound correspondences for common consonant digraphs. [RF.1.3a]
 - b. Decode regularly spelled one-syllable words. [RF.1.3b]
 - c. Know final -e and common vowel team conventions for representing long vowel sounds. [RF.1.3c]
 - d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. [RF.1.3d]
 - e. Decode two-syllable words following basic patterns by breaking the words into syllables. [RF.1.3e]
 - f. Read words with inflectional endings. [RF.1.3f]
 - g. Recognize and read grade-appropriate irregularly spelled words. [RF.1.3g]

Fluency

23. Read with sufficient accuracy and fluency to support comprehension. [RF.1.4]
 - a. Read on-level text with purpose and understanding. [RF.1.4a]
 - b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. [RF.1.4b]
 - c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. [RF.1.4c]

Writing Standards

Text Types and Purposes

24. **Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.** [W.1.1] a. Write simple poems addressing  a topic.
25. **Write informative or explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.** [W.1.2]
26. **Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.** [W.1.3]

Production and Distribution of Writing

27. With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. [W.1.5]
28. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. [W.1.6]

Research to Build and Present Knowledge

29. Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions). [W.1.7]
30. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. [W.1.8]

Speaking and Listening Standards

Comprehension and Collaboration

31. Participate in collaborative conversations with diverse partners about *Grade 1 topics and texts* with peers and adults in small and larger groups. [SL.1.1]
 - a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). [SL.1.1a]
 - b. Build on others’ talk in conversations by responding to the comments of others through multiple exchanges. [SL.1.1b]
 - c. Ask questions to clear up any confusion about the topics and texts under discussion. [SL.1.1c]
32. Ask and answer questions about key details in a text read aloud or information presented orally or through other media. [SL.1.2]
33. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. [SL.1.3]

Presentation of Knowledge and Ideas

34. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. [SL.1.4]
35. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings. [SL.1.5]
36. Produce complete sentences when appropriate to task and situation. (See Grade 1 Language standard 37 for specific expectations.) [SL.1.6]


Language Standards

Conventions of Standard English

37. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.1.1]
 - a. Print all uppercase and lowercase letters. [L.1.1a]
 - b. Use common, proper, and possessive nouns. [L.1.1b]
 - c. Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops; We hop*). [L.1.1c]

- d. Use personal, possessive, and indefinite pronouns (e.g., *I, me, my; they, them, their; anyone, everything*). [L.1.1d]
 - e. Use verbs to convey a sense of past, present, and future (e.g., *Yesterday I walked home; Today I walk home; Tomorrow I will walk home*). [L.1.1e]
 - f. Use frequently occurring adjectives. [L.1.1f]
 - g. Use frequently occurring conjunctions (e.g., *and, but, or, so, because*). [L.1.1g]
 - h. Use determiners (e.g., articles, demonstratives). [L.1.1h]
 - i. Use frequently occurring prepositions (e.g., *during, beyond, toward*). [L.1.1i]
 - j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts. [L.1.1j]
38. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.1.2]
- a. Capitalize dates and names of people. [L.1.2a]
 - b. Use end punctuation for sentences. [L.1.2b]
 - c. Use commas in dates and to separate single words in a series. [L.1.2c]
 - d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words. [L.1.2d]
 - e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions. [L.1.2e]

Vocabulary Acquisition and Use

39. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 1 reading and content*, choosing flexibly from an array of strategies. [L.1.4]
- a. Use sentence-level context as a clue to the meaning of a word or phrase. [L.1.4a]
 - b. Use frequently occurring affixes as a clue to the meaning of a word. [L.1.4b]
 - c. Identify frequently occurring root words (e.g., *look*) and their inflectional forms (e.g., *looks, looked, looking*). [L.1.4c]
 - d. Apply alphabetical order to the first letter of words to access information. 
40. With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. [L.1.5]
- a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. [L.1.5a]
 - b. Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes). [L.1.5b]
 - c. Identify real-life connections between words and their use (e.g., note places at home that are *cozy*). [L.1.5c]
 - d. Distinguish shades of meaning among verbs differing in manner (e.g., *look, peek, glance, stare, glare, scowl*) and adjectives differing in intensity (e.g., *large, gigantic*) by defining or choosing them or by acting out the meanings. [L.1.5d]
41. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*). [L.1.6]

Grade 2

Students will:

Reading Standards for Literature

Key Ideas and Details

1. Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text. [RL.2.1] a. Infer the main idea and supporting details in narrative texts.
2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. [RL.2.2]
3. Describe how characters in a story respond to major events and challenges. [RL.2.3]

Craft and Structure

4. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song. [RL.2.4]
5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action. [RL.2.5]
6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud. [RL.2.6]

Integration of Knowledge and Ideas

7. Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot. [RL.2.7]
8. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures. [RL.2.9]

Range of Reading and Level of Text Complexity

9. By the end of the year, read and comprehend literature, including stories and poetry, in the Grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range. [RL.2.10]

Reading Standards for Informational Text

Key Ideas and Details

10. Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text. [RI.2.1]
11. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. [RI.2.2]
12. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. [RI.2.3]

Craft and Structure

13. Determine the meaning of words and phrases in a text relevant to a *Grade 2 topic or subject area*. [RI.2.4]
14. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. [RI.2.5]
15. Identify the main purpose of a text, including what the author wants to answer, explain, or describe. [RI.2.6]

Integration of Knowledge and Ideas

16. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text. [RI.2.7]
17. Describe how reasons support specific points the author makes in a text. [RI.2.8]
18. Compare and contrast the most important points presented by two texts on the same topic. [RI.2.9]

Range of Reading and Level of Text Complexity

19. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the Grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range. [RI.2.10]

Reading Standards: Foundational Skills

Phonics and Word Recognition

20. Know and apply grade-level phonics and word analysis skills in decoding words. [RF.2.3]
- Distinguish long and short vowels when reading regularly spelled one-syllable words. [RF.2.3a]
 - Know spelling-sound correspondences for additional common vowel teams. [RF.2.3b]
 - Decode regularly spelled two-syllable words with long vowels. [RF.2.3c]
 - Decode words with common prefixes and suffixes. [RF.2.3d]
 - Identify words with inconsistent but common spelling-sound correspondences. [RF.2.3e]
 - Recognize and read grade-appropriate irregularly spelled words. [RF.2.3f]

Fluency

21. Read with sufficient accuracy and fluency to support comprehension. [RF.2.4]
- Read on-level text with purpose and understanding. [RF.2.4a]
 - Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. [RF.2.4b]
 - Use context to confirm or self-correct word recognition and understanding, rereading as necessary. [RF.2.4c]

Writing Standards

Text Types and Purposes

22. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., *because*, *and*, *also*) to connect opinion and reasons, and provide a concluding statement or section. [W.2.1] a. Write free verse poetry to express ideas.
23. Write informative or explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section. [W.2.2]
24. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. [W.2.3]

Production and Distribution of Writing

25. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. [W.2.5]
26. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. [W.2.6]

Research to Build and Present Knowledge

27. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). [W.2.7]
28. Recall information from experiences or gather information from provided sources to answer a question. [W.2.8]

Speaking and Listening Standards

Comprehension and Collaboration

- 29 Participate in collaborative conversations with diverse partners about *Grade 2 topics and texts* with peers and adults in small and larger groups. [SL.2.1]
 - a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). [SL.2.1a]
 - b. Build on others' talk in conversations by linking their comments to the remarks of others. [SL.2.1b]
 - c. Ask for clarification and further explanation as needed about the topics and texts under discussion. [SL.2.1c]
30. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. [SL.2.2]
31. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue. [SL.2.3]


Presentation of Knowledge and Ideas

32. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences. [SL.2.4]
33. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. [SL.2.5]
34. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See Grade 2 Language standards 35 and 37 for specific expectations.) [SL.2.6]

Language Standards

Conventions of Standard English

35. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.2.1]
 - a. Use collective nouns (e.g., *group*). [L.2.1a]
 - b. Form and use frequently occurring irregular plural nouns (e.g., *feet, children, teeth, mice, fish*). [L.2.1b]
 - c. Use reflexive pronouns (e.g., *myself, ourselves*). [L.2.1c]

- d. Form and use the past tense of frequently occurring irregular verbs (e.g., *sat, hid, told*). [L.2.1d]
 - e. Use adjectives and adverbs, and choose between them depending on what is to be modified. [L.2.1e]
 - f. Produce, expand, and rearrange complete simple and compound sentences (e.g., *The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy*). [L.2.1f]
36. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.2.2]
- a. Capitalize holidays, product names, and geographic names. [L.2.2a]
 - b. Use commas in greetings and closings of letters. [L.2.2b]
 - c. Use an apostrophe to form contractions and frequently occurring possessives. [L.2.2c]
 - d. Generalize learned spelling patterns when writing words (e.g., *cage* → *badge*; *boy* → *boil*). [L.2.2d]
 - e. Form uppercase and lowercase letters in cursive. 
 - f. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings. [L.2.2e]

Knowledge of Language

37. Use knowledge of language and its conventions when writing, speaking, reading, or listening. [L.2.3]
- a. Compare formal and informal uses of English. [L.2.3a]

Vocabulary Acquisition and Use

38. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 2 reading and content*, choosing flexibly from an array of strategies. [L.2.4]
- a. Use sentence-level context as a clue to the meaning of a word or phrase. [L.2.4a]
 - b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., *happy/unhappy, tell/retell*). [L.2.4b]
 - c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *addition, additional*). [L.2.4c]
 - d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*). [L.2.4d]
 - e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases. [L.2.4e]
39. Demonstrate understanding of word relationships and nuances in word meanings. [L.2.5]
- a. Identify real-life connections between words and their use (e.g., describe foods that are *spicy* or *juicy*). [L.2.5a]
 - b. Distinguish shades of meaning among closely related verbs (e.g., *toss, throw, hurl*) and closely related adjectives (e.g., *thin, slender, skinny, scrawny*). [L.2.5b]

40. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., *When other kids are happy that makes me happy*). [L.2.6]

Grade 3

Students will:

Reading Standards for Literature

Key Ideas and Details

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. [RL.3.1]
2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text. [RL.3.2]
3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events. [RL.3.3]

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language. [RL.3.4]
5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections. [RL.3.5]
6. Distinguish their own point of view from that of the narrator or those of the characters. [RL.3.6]

Integration of Knowledge and Ideas

7. Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting). [RL.3.7]
8. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series). [RL.3.9]

Range of Reading and Level of Text Complexity

9. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the Grades 2-3 text complexity band independently and proficiently. [RL.3.10]

Reading Standards for Informational Text

Key Ideas and Details

10. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. [RI.3.1]
11. Determine the main idea of a text; recount the key details and explain how they support the main idea. [RI.3.2]
12. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause and effect. [RI.3.3]

Craft and Structure

13. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *Grade 3 topic or subject area*. [RI.3.4]
14. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. [RI.3.5]
15. Distinguish their own point of view from that of the author of a text. [RI.3.6]

Integration of Knowledge and Ideas

16. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). [RI.3.7]
17. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison; cause and effect; first, second, third in a sequence). [RI.3.8]
18. Compare and contrast the most important points and key details presented in two texts on the same topic. [RI.3.9]

Range of Reading and Level of Text Complexity

19. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the Grades 2-3 text complexity band independently and proficiently. [RI.3.10]

Reading Standards: Foundational Skills

Phonics and Word Recognition

20. Know and apply grade-level phonics and word analysis skills in decoding words. [RF.3.3]
 - a. Identify and know the meaning of the most common prefixes and derivational suffixes. [RF.3.3a]
 - b. Decode words with common Latin suffixes. [RF.3.3b]
 - c. Decode multisyllable words. [RF.3.3c]
 - d. Read grade-appropriate irregularly spelled words. [RF.3.3d]

Fluency

21. Read with sufficient accuracy and fluency to support comprehension. [RF.3.4]
 - a. Read on-level text with purpose and understanding. [RF.3.4a]
 - b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. [RF.3.4b]
 - c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. [RF.3.4c]

Writing Standards

Text Types and Purposes

22. Write opinion pieces on topics or texts, supporting a point of view with reasons. [W.3.1]
 - a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. [W.3.1a]
 - b. Provide reasons that support the opinion. [W.3.1b]
 - c. Use linking words and phrases (e.g., *because, therefore, since, for example*) to connect opinion and reasons. [W.3.1c]
 - d. Provide a concluding statement or section. [W.3.1d]
23. Write informative or explanatory texts to examine a topic and convey ideas and information clearly. [W.3.2]
 - a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. [W.3.2a]
 - b. Develop the topic with facts, definitions, and details. [W.3.2b]
 - c. Use linking words and phrases (e.g., *also, another, and, more, but*) to connect ideas within categories of information. [W.3.2c]
 - d. Provide a concluding statement or section. [W.3.2d]
24. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. [W.3.3]
 - a. Establish a situation and introduce a narrator, characters, or both; organize an event sequence that unfolds naturally. [W.3.3a]
 - b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. [W.3.3b]
 - c. Use temporal words and phrases to signal event order. [W.3.3c]
 - d. Provide a sense of closure. [W.3.3d]

Production and Distribution of Writing

25. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 22-24 above.) [W.3.4]
26. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of the first three Language standards in Grades K-3.) [W.3.5]
27. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. [W.3.6]

Research to Build and Present Knowledge

28. Conduct short research projects that build knowledge about a topic. [W.3.7]
29. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. [W.3.8]

Range of Writing

30. Write routinely over extended time frames, including time for research, reflection, and revision, and shorter time frames such as a single sitting or a day or two for a range of discipline-specific tasks, purposes, and audiences. [W.3.10]

Speaking and Listening Standards

Comprehension and Collaboration

31. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *Grade 3 topics and texts*, building on others' ideas and expressing their own clearly. [SL.3.1]
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. [SL.3.1a]
 - b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). [SL.3.1b]
 - c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. [SL.3.1c]
 - d. Explain their own ideas and understanding in light of the discussion. [SL.3.1d]
32. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. [SL.3.2]
33. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. [SL.3.3]


Presentation of Knowledge and Ideas

34. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace. [SL.3.4]
35. Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details. [SL.3.5]
36. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See Grade 3 Language standards 37 and 39 for specific expectations.) [SL.3.6]

Language Standards

Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*).

Conventions of Standard English

37. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.3.1]
 - a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. [L.3.1a]
 - b. Form and use regular and irregular plural nouns. [L.3.1b]
 - c. Use abstract nouns (e.g., *childhood*). [L.3.1c]
 - d. Form and use regular and irregular verbs. [L.3.1d]
 - e. Form and use the simple (e.g., *I walked*; *I walk*; *I will walk*) verb tenses. [L.3.1e]
 - f. Ensure subject-verb and pronoun-antecedent agreement.* [L.3.1f]
 - g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. [L.3.1g]
 - h. Use coordinating and subordinating conjunctions. [L.3.1h]
 - i. Produce simple, compound, and complex sentences. [L.3.1i]
38. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.3.2]
 - a. Capitalize appropriate words in titles. [L.3.2a]
 - b. Use commas in addresses. [L.3.2b]
 - c. Use commas and quotation marks in dialogue. [L.3.2c]
 - d. Form and use possessives. [L.3.2d]
 - e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting*, *smiled*, *cries*, *happiness*). [L.3.2e]
 - f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words. [L.3.2f]
 - g. Write legibly in cursive. 
 - h. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings. [L.3.2g]

Knowledge of Language

39. Use knowledge of language and its conventions when writing, speaking, reading, or listening. [L.3.3]
- Choose words and phrases for effect.* [L.3.3a]
 - Recognize and observe differences between the conventions of spoken and written Standard English. [L.3.3b]

Vocabulary Acquisition and Use

40. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 3 reading and content*, choosing flexibly from a range of strategies. [L.3.4]
- Use sentence-level context as a clue to the meaning of a word or phrase. [L.3.4a]
 - Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable*, *comfortable/uncomfortable*, *care/careless*, *heat/preheat*). [L.3.4b]
 - Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company*, *companion*). [L.3.4c]
 - Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases. [L.3.4d]
41. Demonstrate understanding of word relationships and nuances in word meanings. [L.3.5]
- Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*). [L.3.5a]
 - Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*). [L.3.5b]
 - Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew*, *believed*, *suspected*, *heard*, *wondered*). [L.3.5c]
42. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*). [L.3.6]

Grade 4

Students will:

Reading Standards for Literature

Key Ideas and Details

1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. [RL.4.1]
2. Determine a theme of a story, drama, or poem from details in the text; summarize the text. [RL.4.2]
3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). [RL.4.3]

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., *Herculean*). [RL.4.4]
5. Explain major differences among poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. [RL.4.5]
6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. [RL.4.6]

Integration of Knowledge and Ideas

7. Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. [RL.4.7]
8. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures. [RL.4.9]

Range of Reading and Level of Text Complexity

9. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the Grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range. [RL.4.10]

Reading Standards for Informational Text

Key Ideas and Details

10. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. [RI.4.1]
11. Determine the main idea of a text and explain how it is supported by key details; summarize the text. [RI.4.2]
12. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. [RI.4.3]

Craft and Structure

13. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *Grade 4 topic or subject area*. [RI.4.4]
14. Describe the overall structure (e.g., chronology, comparison, cause and effect, problem and solution) of events, ideas, concepts, or information in a text or part of a text. [RI.4.5]
15. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided. [RI.4.6]

Integration of Knowledge and Ideas

16. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. [RI.4.7]
17. Explain how an author uses reasons and evidence to support particular points in a text. [RI.4.8]
18. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. [RI.4.9]

Range of Reading and Level of Text Complexity

19. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the Grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range. [RI.4.10]

Reading Standards: Foundational Skills

Phonics and Word Recognition

20. Know and apply grade-level phonics and word analysis skills in decoding words. [RF.4.3] a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. [RF.4.3a]

Fluency

21. Read with sufficient accuracy and fluency to support comprehension. [RF.4.4]
 - a. Read on-level text with purpose and understanding. [RF.4.4a]
 - b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. [RF.4.4b]
 - c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. [RF.4.4c]

Writing Standards

Text Types and Purposes

22. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. [W.4.1]
 - a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. [W.4.1a]
 - b. Provide reasons that are supported by facts and details. [W.4.1b]
 - c. Link opinion and reasons using words and phrases (e.g., *for instance*, *in order to*, *in addition*). [W.4.1c]
 - d. Provide a concluding statement or section related to the opinion presented. [W.4.1d]
23. Write informative or explanatory texts to examine a topic and convey ideas and information clearly. [W.4.2]
 - a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. [W.4.2a]
 - b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. [W.4.2b]
 - c. Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*). [W.4.2c]
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic. [W.4.2d]
 - e. Provide a concluding statement or section related to the information or explanation presented. [W.4.2e]
24. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. [W.4.3]
 - a. Orient the reader by establishing a situation and introducing a narrator, characters, or both; organize an event sequence that unfolds naturally. [W.4.3a]
 - b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. [W.4.3b]
 - c. Use a variety of transitional words and phrases to manage the sequence of events. [W.4.3c]
 - d. Use concrete words and phrases and sensory details to convey experiences and events precisely. [W.4.3d]
 - e. Provide a conclusion that follows from the narrated experiences or events. [W.4.3e]

Production and Distribution of Writing

25. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 22-24 above.) [W.4.4]
26. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of the first three Language standards in Grades K-4.) [W.4.5]
27. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. [W.4.6]

Research to Build and Present Knowledge

28. Conduct short research projects that build knowledge through investigation of different aspects of a topic. [W.4.7]
29. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. [W.4.8]
30. Draw evidence from literary or informational texts to support analysis, reflection, and research. [W.4.9]
 - a. Apply *Grade 4 Reading standards* to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions]”). [W.4.9a]
 - b. Apply *Grade 4 Reading standards* to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”). [W.4.9b]

Range of Writing

31. Write routinely over extended time frames, including time for research, reflection, and revision, and shorter time frames such as a single sitting or a day or two for a range of discipline-specific tasks, purposes, and audiences. [W.4.10]

Speaking and Listening Standards

Comprehension and Collaboration

32. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *Grade 4 topics and texts*, building on others’ ideas and expressing their own clearly. [SL.4.1]
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. [SL.4.1a]
 - b. Follow agreed-upon rules for discussions and carry out assigned roles. [SL.4.1b]

- c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. [SL.4.1c]
 - d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion. [SL.4.1d]
33. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. [SL.4.2]
34. Identify the reasons and evidence a speaker provides to support particular points. [SL.4.3]

Presentation of Knowledge and Ideas

35. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. [SL.4.4]
36. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. [SL.4.5]
37. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See Grade 4 Language standards 38 and 40 for specific expectations.) [SL.4.6]

LANGUAGE STANDARDS

Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*).

Conventions of Standard English

38. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.4.1]
- a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*). [L.4.1a]
 - b. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses. [L.4.1b]
 - c. Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions. [L.4.1c]
 - d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*). [L.4.1d]
 - e. Form and use prepositional phrases. [L.4.1e]
 - f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* [L.4.1f]
 - g. Correctly use frequently confused words (e.g., *to, too, two; there, their*).* [L.4.1g]
39. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.4.2]
- a. Use correct capitalization. [L.4.2a]
 - b. Use commas and quotation marks to mark direct speech and quotations from a text. [L.4.2b]

- c. Use a comma before a coordinating conjunction in a compound sentence. [L.4.2c]
- d. Spell grade-appropriate words correctly, consulting references as needed. [L.4.2d]

Knowledge of Language

40. Use knowledge of language and its conventions when writing, speaking, reading, or listening. [L.4.3]
- a. Choose words and phrases to convey ideas precisely.* [L.4.3a]
 - b. Choose punctuation for effect.* [L.4.3b]
 - c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). [L.4.3c]

Vocabulary Acquisition and Use

41. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 4 reading and content*, choosing flexibly from a range of strategies. [L.4.4]
- a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. [L.4.4a]
 - b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph*, *photograph*, *autograph*). [L.4.4b]
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. [L.4.4c]
42. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. [L.4.5]
- a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context. [L.4.5a]
 - b. Recognize and explain the meaning of common idioms, adages, and proverbs. [L.4.5b]
 - c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms). [L.4.5c]
43. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed*, *whined*, *stammered*) and that are basic to a particular topic (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation). [L.4.6]

Grade 5

Students will:

Reading Standards for Literature

Key Ideas and Details

1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. [RL.5.1]
2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. [RL.5.2]
3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). [RL.5.3]

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. [RL.5.4]
5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem. [RL.5.5]
6. Describe how a narrator's or speaker's point of view influences how events are described. [RL.5.6]

Integration of Knowledge and Ideas

7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). [RL.5.7]
8. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. [RL.5.9]

Range of Reading and Level of Text Complexity

9. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the Grades 4-5 text complexity band independently and proficiently. [RL.5.10]

Reading Standards for Informational Text

Key Ideas and Details

10. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. [RI.5.1]
11. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. [RI.5.2]
12. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. [RI.5.3]

Craft and Structure

13. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *Grade 5 topic or subject area*. [RI.5.4]
14. Compare and contrast the overall structure (e.g., chronology, comparison, cause and effect, problem and solution) of events, ideas, concepts, or information in two or more texts. [RI.5.5]
15. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. [RI.5.6]

Integration of Knowledge and Ideas

16. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. [RI.5.7]
17. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). [RI.5.8]
18. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. [RI.5.9]

Range of Reading and Level of Text Complexity

19. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the Grades 4-5 text complexity band independently and proficiently. [RI.5.10]

Reading Standards: Foundational Skills

Phonics and Word Recognition

20. Know and apply grade-level phonics and word analysis skills in decoding words. [RF.5.3] a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. [RF.5.3a]

Fluency

21. Read with sufficient accuracy and fluency to support comprehension. [RF.5.4]
- Read on-level text with purpose and understanding. [RF.5.4a]
 - Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. [RF.5.4b]
 - Use context to confirm or self-correct word recognition and understanding, rereading as necessary. [RF.5.4c]

Writing Standards

Text Types and Purposes

22. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. [W.5.1]
- Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. [W.5.1a]
 - Provide logically ordered reasons that are supported by facts and details. [W.5.1b]
 - Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*). [W.5.1c]
 - Provide a concluding statement or section related to the opinion presented. [W.5.1d]
23. Write informative or explanatory texts to examine a topic and convey ideas and information clearly. [W.5.2]
- Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. [W.5.2a]
 - Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. [W.5.2b]
 - Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*). [W.5.2c]
 - Use precise language and domain-specific vocabulary to inform about or explain the topic. [W.5.2d]
 - Provide a concluding statement or section related to the information or explanation presented. [W.5.2e]

24. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. [W.5.3]
 - a. Orient the reader by establishing a situation and introducing a narrator, characters, or both; organize an event sequence that unfolds naturally. [W.5.3a]
 - b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. [W.5.3b]
 - c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. [W.5.3c]
 - d. Use concrete words and phrases and sensory details to convey experiences and events precisely. [W.5.3d]
 - e. Provide a conclusion that follows from the narrated experiences or events. [W.5.3e]

Production and Distribution of Writing

25. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 22-24 above.) [W.5.4]
26. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of the first three Language standards in Grades K-5). [W.5.5]
27. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. [W.5.6]

Research to Build and Present Knowledge

28. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. [W.5.7]
29. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources. [W.5.8]
30. Draw evidence from literary or informational texts to support analysis, reflection, and research. [W.5.9]
 - a. Apply *Grade 5 Reading standards* to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]”). [W.5.9a]
 - b. Apply *Grade 5 Reading standards* to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]”). [W.5.9b]

Range of Writing

31. Write routinely over extended time frames, including time for research, reflection, and revision, and shorter time frames such as a single sitting or a day or two for a range of discipline-specific tasks, purposes, and audiences. [W.5.10]

Speaking and Listening Standards

Comprehension and Collaboration

32. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *Grade 5 topics and texts*, building on others' ideas and expressing their own clearly. [SL.5.1]
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. [SL.5.1a]
 - b. Follow agreed-upon rules for discussions and carry out assigned roles. [SL.5.1b]
 - c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. [SL.5.1c]
 - d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. [SL.5.1d]
33. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. [SL.5.2]
34. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence. [SL.5.3]

Presentation of Knowledge and Ideas

35. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. [SL.5.4]
36. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. [SL.5.5]
37. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See Grade 5 Language standards 38 and 40 for specific expectations.) [SL.5.6]

Language Standards

Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*).

Conventions of Standard English

38. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.5.1]
 - a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. [L.5.1a]
 - b. Form and use the perfect (e.g., *I had walked*; *I have walked*; *I will have walked*) verb tenses. [L.5.1b]
 - c. Use verb tense to convey various times, sequences, states, and conditions. [L.5.1c]

- d. Recognize and correct inappropriate shifts in verb tense.* [L.5.1d]
 - e. Use correlative conjunctions (e.g., *either/or*, *neither/nor*). [L.5.1e]
39. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.5.2]
- a. Use punctuation to separate items in a series.* [L.5.2a]
 - b. Use a comma to separate an introductory element from the rest of the sentence. [L.5.2b]
 - c. Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). [L.5.2c]
 - d. Use underlining, quotation marks, or italics to indicate titles of works. [L.5.2d]
 - e. Spell grade-appropriate words correctly, consulting references as needed. [L.5.2e]

Knowledge of Language

40. Use knowledge of language and its conventions when writing, speaking, reading, or listening. [L.5.3]
- a. Expand, combine, and reduce sentences for meaning, reader or listener interest, and style. [L.5.3a]
 - b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems. [L.5.3b]

Vocabulary Acquisition and Use

41. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 5 reading and content*, choosing flexibly from a range of strategies. [L.5.4]
- a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. [L.5.4a]
 - b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph*, *photosynthesis*). [L.5.4b]
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. [L.5.4c]
42. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. [L.5.5]
- a. Interpret figurative language, including similes and metaphors, in context. [L.5.5a]
 - b. Recognize and explain the meaning of common idioms, adages, and proverbs. [L.5.5b]
 - c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. [L.5.5c]
43. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however*, *although*, *nevertheless*, *similarly*, *moreover*, *in addition*). [L.5.6]

Grade 6

Students will:

Reading Standards for Literature


Key Ideas and Details

1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. [RL.6.1]
2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. [RL.6.2]
3. Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution. [RL.6.3]

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone. [RL.6.4]
5. Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot. [RL.6.5]
6. Explain how an author develops the point of view of the narrator or speaker in a text. [RL.6.6]

Integration of Knowledge and Ideas

7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch. [RL.6.7]
8. Differentiate among odes, ballads, epic poetry, and science fiction. 
9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics. [RL.6.9]

Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. [RL.6.10]

Reading Standards for Informational Text

Key Ideas and Details

11. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. [RI.6.1]
12. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. [RI.6.2]
13. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). [RI.6.3]

Craft and Structure

14. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings. [RI.6.4]
15. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas. [RI.6.5]
16. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. [RI.6.6]

Integration of Knowledge and Ideas

17. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. [RI.6.7]
18. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not. [RI.6.8]
19. Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person). [RI.6.9]

Range of Reading and Level of Text Complexity

20. By the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. [RI.6.10]

Writing Standards

Text Types and Purposes

21. Write arguments to support claims with clear reasons and relevant evidence. [W.6.1]
 - a. Introduce claim(s) and organize the reasons and evidence clearly. [W.6.1a]

- b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. [W.6.1b]
 - c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. [W.6.1c]
 - d. Establish and maintain a formal style. [W.6.1d]
 - e. Provide a concluding statement or section that follows from the argument presented. [W.6.1e]
22. Write informative or explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. [W.6.2]
- a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison or contrast, and cause and effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. [W.6.2a]
 - b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. [W.6.2b]
 - c. Use appropriate transitions to clarify the relationships among ideas and concepts. [W.6.2c]
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic. [W.6.2d]
 - e. Establish and maintain a formal style. [W.6.2e]
 - f. Provide a concluding statement or section that follows from the information or explanation presented. [W.6.2f]
23. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. [W.6.3]
- a. Engage and orient the reader by establishing a context and introducing a narrator, characters, or both; organize an event sequence that unfolds naturally and logically. [W.6.3a]
 - b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. [W.6.3b]
 - c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. [W.6.3c]
 - d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. [W.6.3d]
 - e. Provide a conclusion that follows from the narrated experiences or events. [W.6.3e]

Production and Distribution of Writing

24. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 21-23 above.) [W.6.4]
25. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of the first three Language standards in Grades K-6.) [W.6.5]

26. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting. [W.6.6]

Research to Build and Present Knowledge

27. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. [W.6.7]
28. Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. [W.6.8]
29. Draw evidence from literary or informational texts to support analysis, reflection, and research. [W.6.9]
- Apply *Grade 6 Reading standards* to literature (e.g., “Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics”). [W.6.9a]
 - Apply *Grade 6 Reading standards* to literary nonfiction (e.g., “Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not”). [W.6.9b]

Range of Writing

30. Write routinely over extended time frames, including time for research, reflection, and revision, and shorter time frames such as a single sitting or a day or two for a range of discipline-specific tasks, purposes, and audiences. [W.6.10]

Speaking and Listening Standards

Comprehension and Collaboration

31. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *Grade 6 topics, texts, and issues*, building on others’ ideas and expressing their own clearly. [SL.6.1]
- Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. [SL.6.1a]
 - Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. [SL.6.1b]
 - Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. [SL.6.1c]
 - Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing. [SL.6.1d]
32. Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study. [SL.6.2]

33. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not. [SL.6.3]

Presentation of Knowledge and Ideas

34. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation. [SL.6.4]
35. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information. [SL.6.5]
36. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See Grade 6 Language standards 37 and 39 for specific expectations.) [SL.6.6]

Language Standards

Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*).

Conventions of Standard English

37. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.6.1]
- Demonstrate knowledge of subject-verb agreement when interrupted by a prepositional phrase, with inverted word order, and with indefinite pronouns as subjects. [L.6.1a]
 - Ensure that pronouns are in the proper case (subjective, objective, possessive). [L.6.1a]
 - Use intensive pronouns (e.g., *myself*, *ourselves*). [L.6.1b]
 - Recognize and correct inappropriate shifts in pronoun number and person.* [L.6.1c]
 - Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* [L.6.1d]
 - Recognize variations from Standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.* [L.6.1e]
38. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.6.2]
- Use punctuation (commas, parentheses, dashes) to set off nonrestrictive or parenthetical elements.* [L.6.2a]
 - Spell correctly. [L.6.2b]

Knowledge of Language

39. Use knowledge of language and its conventions when writing, speaking, reading, or listening. [L.6.3]
- Vary sentence patterns for meaning, reader or listener interest, and style.* [L.6.3a]
 - Maintain consistency in style and tone.* [L.6.3b]

Vocabulary Acquisition and Use

40. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 6 reading and content*, choosing flexibly from a range of strategies. [L.6.4]
- Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. [L.6.4a]
 - Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience*, *auditory*, *audible*). [L.6.4b]
 - Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. [L.6.4c]
 - Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). [L.6.4d]
41. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. [L.6.5]
- Interpret figures of speech (e.g., personification) in context. [L.6.5a]
 - Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. [L.6.5b]
 - Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy*, *scrimping*, *economical*, *unwasteful*, *thrifty*). [L.6.5c]
42. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. [L.6.6]

Grade 7

Students will:

Reading Standards for Literature

Key Ideas and Details

1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. [RL.7.1]
2. Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text. [RL.7.2]
3. Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot). [RL.7.3]

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama. [RL.7.4]
5. Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning. [RL.7.5]
6. Analyze how an author develops and contrasts the points of view of different characters or narrators in a text. [RL.7.6]

Integration of Knowledge and Ideas

7. Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film). [RL.7.7]
8. Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history. [RL.7.9]

Range of Reading and Level of Text Complexity

9. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. [RL.7.10]

Reading Standards for Informational Text

Key Ideas and Details

10. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. [RI.7.1]
11. Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text. [RI.7.2]
12. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events). [RI.7.3]

Craft and Structure

13. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone. [RI.7.4]
14. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas. [RI.7.5]
15. Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others. [RI.7.6]

Integration of Knowledge and Ideas

16. Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words). [RI.7.7]
17. Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims. [RI.7.8]
18. Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts. [RI.7.9]

Range of Reading and Level of Text Complexity

19. By the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. [RI.7.10]

Writing Standards

Text Types and Purposes

20. Write arguments to support claims with clear reasons and relevant evidence. [W.7.1]
 - a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically. [W.7.1a]
 - b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. [W.7.1b]
 - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence. [W.7.1c]
 - d. Establish and maintain a formal style. [W.7.1d]
 - e. Provide a concluding statement or section that follows from and supports the argument presented. [W.7.1e]

21. Write informative or explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. [W.7.2]
 - a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison or contrast, and cause and effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. [W.7.2a]
 - b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. [W.7.2b]
 - c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts. [W.7.2c]
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic. [W.7.2d]
 - e. Establish and maintain a formal style. [W.7.2e]
 - f. Provide a concluding statement or section that follows from and supports the information or explanation presented. [W.7.2f]

22. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. [W.7.3]
 - a. Engage and orient the reader by establishing a context and point of view and introducing a narrator, characters, or both; organize an event sequence that unfolds naturally and logically. [W.7.3a]
 - b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. [W.7.3b]
 - c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. [W.7.3c]
 - d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. [W.7.3d]
 - e. Provide a conclusion that follows from and reflects on the narrated experiences or events. [W.7.3e]

Production and Distribution of Writing

23. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 20-22 above.) [W.7.4]
24. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of the first three standards in the Language strand in Grades K-7.) [W.7.5]
25. Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources. [W.7.6]

Research to Build and Present Knowledge

26. Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation. [W.7.7]
27. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. [W.7.8]
28. Draw evidence from literary or informational texts to support analysis, reflection, and research. [W.7.9]
 - a. Apply *Grade 7 Reading standards* to literature (e.g., “Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history”). [W.7.9a]
 - b. Apply *Grade 7 Reading standards* to literary nonfiction (e.g. “Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims”). [W.7.9b]

Range of Writing

29. Write routinely over extended time frames, including time for research, reflection, and revision, and shorter time frames such as a single sitting or a day or two for a range of discipline-specific tasks, purposes, and audiences. [W.7.10]

Speaking and Listening Standards

Comprehension and Collaboration

30. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *Grade 7 topics, texts, and issues*, building on others’ ideas and expressing their own clearly. [SL.7.1]
 - a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. [SL.7.1a]

- b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. [SL.7.1b]
 - c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. [SL.7.1c]
 - d. Acknowledge new information expressed by others and, when warranted, modify their own views. [SL.7.1d]
31. Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study. [SL.7.2]
32. Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence. [SL.7.3]

Presentation of Knowledge and Ideas

33. Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation. [SL.7.4]
34. Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. [SL.7.5]
35. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See Grade 7 Language standards 36 and 38 for specific expectations.) [SL.7.6]

Language Standards

Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*).

Conventions of Standard English

36. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.7.1]
- a. Demonstrate knowledge of subject-verb agreement when interrupted by a prepositional phrase, with inverted word order, with indefinite pronouns as subjects, compound subjects joined by correlative and coordinating conjunctions, and collective nouns when verb form depends on the rest of the sentence. [L.7.1a]
 - b. Explain the function of phrases and clauses in general and their function in specific sentences. [L.7.1a]
 - c. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas. [L.7.1b]
 - d. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.* [L.7.1c]

37. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.7.2]
- Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore an old[,] green shirt*). [L.7.2a]
 - Spell correctly. [L.7.2b]

Knowledge of Language

38. Use knowledge of language and its conventions when writing, speaking, reading, or listening. [L.7.3]
- Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.* [L.7.3a]

Vocabulary Acquisition and Use

39. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 7 reading and content*, choosing flexibly from a range of strategies. [L.7.4]
- Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. [L.7.4a]
 - Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *belligerent*, *bellicose*, *rebel*). [L.7.4b]
 - Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. [L.7.4c]
 - Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). [L.7.4d]
40. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. [L.7.5]
- Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. [L.7.5a]
 - Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. [L.7.5b]
 - Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *refined*, *respectful*, *polite*, *diplomatic*, *condescending*). [L.7.5c]
41. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. [L.7.6]

Grade 8

Students will:

Reading Standards for Literature

Key Ideas and Details

1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. [RL.8.1]
2. Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text. [RL.8.2]
3. Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision. [RL.8.3]

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts. [RL.8.4]
5. Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style. [RL.8.5]
6. Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor. [RL.8.6]

Integration of Knowledge and Ideas

7. Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors. [RL.8.7]
8. Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new. [RL.8.9]

Range of Reading and Level of Text Complexity

9. By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of Grades 6-8 text complexity band independently and proficiently. [RL.8.10]

Reading Standards for Informational Text

Key Ideas and Details

10. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. [RI.8.1]
11. Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text. [RI.8.2]
12. Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories). [RI.8.3]

Craft and Structure

13. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts. [RI.8.4]
14. Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept. [RI.8.5]
15. Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints. [RI.8.6]

Integration of Knowledge and Ideas

16. Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea. [RI.8.7]
17. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced. [RI.8.8]
18. Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation. [RI.8.9]

Range of Reading and Level of Text Complexity

19. By the end of the year, read and comprehend literary nonfiction at the high end of the Grades 6-8 text complexity band independently and proficiently. [RI.8.10]

Writing Standards

Text Types and Purposes

20. Write arguments to support claims with clear reasons and relevant evidence. [W.8.1]
 - a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. [W.8.1a]
 - b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. [W.8.1b]
 - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. [W.8.1c]
 - d. Establish and maintain a formal style. [W.8.1d]
 - e. Provide a concluding statement or section that follows from and supports the argument presented. [W.8.1e]

21. Write informative or explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. [W.8.2]
 - a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. [W.8.2a]
 - b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. [W.8.2b]
 - c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. [W.8.2c]
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic. [W.8.2d]
 - e. Establish and maintain a formal style. [W.8.2e]
 - f. Provide a concluding statement or section that follows from and supports the information or explanation presented. [W.8.2f]

22. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. [W.8.3]
 - a. Engage and orient the reader by establishing a context and point of view and introducing a narrator, characters, or both; organize an event sequence that unfolds naturally and logically. [W.8.3a]
 - b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters. [W.8.3b]
 - c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events. [W.8.3c]
 - d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. [W.8.3d]
 - e. Provide a conclusion that follows from and reflects on the narrated experiences or events. [W.8.3e]

Production and Distribution of Writing

23. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 20-22 above.) [W.8.4]

24. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of the first three standards in the Language strand in Grades K-8.) [W.8.5]
25. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others. [W.8.6]

Research to Build and Present Knowledge

26. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration. [W.8.7]
27. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. [W.8.8]
28. Draw evidence from literary or informational texts to support analysis, reflection, and research. [W.8.9]
 - a. Apply *Grade 8 Reading standards* to literature (e.g., “Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new”). [W.8.9a]
 - b. Apply *Grade 8 Reading standards* to literary nonfiction (e.g., “Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced”). [W.8.9b]

Range of Writing

29. Write routinely over extended time frames, including time for research, reflection, and revision, and shorter time frames such as a single sitting or a day or two for a range of discipline-specific tasks, purposes, and audiences. [W.8.10]

Speaking and Listening Standards

Comprehension and Collaboration

30. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *Grade 8 topics, texts, and issues*, building on others’ ideas and expressing their own clearly. [SL.8.1]
 - a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. [SL.8.1a]

- b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. [SL.8.1b]
 - c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. [SL.8.1c]
 - d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented. [SL.8.1d]
31. Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation. [SL.8.2]
32. Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced. [SL.8.3]

Presentation of Knowledge and Ideas

33. Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. [SL.8.4]
34. Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest. [SL.8.5]
35. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See Grade 8 Language standards 36 and 38 for specific expectations.) [SL.8.6]

Language Standards

Skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*).

Conventions of Standard English

36. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. [L.8.1]
- a. Apply rules of subject-verb agreement when interrupted by a prepositional phrase, with inverted word order, with indefinite pronouns as subjects, compound subjects joined by correlative and coordinating conjunctions, and collective nouns when verb form depends on the rest of the sentence.
 - b. Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences. [L.8.1a]
 - c. Form and use verbs in the active and passive voice. [L.8.1b]
 - d. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood. [L.8.1c]
 - e. Recognize and correct inappropriate shifts in verb voice and mood.* [L.8.1d]

37. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. [L.8.2]
- a. Use punctuation (comma, ellipsis, dash) to indicate a pause or break. [L.8.2a]
 - b. Use an ellipsis to indicate an omission. [L.8.2b]
 - c. Spell correctly. [L.8.2c]

Knowledge of Language

38. Use knowledge of language and its conventions when writing, speaking, reading, or listening. [L.8.3]
- a. Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact). [L.8.3a]

Vocabulary Acquisition and Use

39. Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on *Grade 8 reading and content*, choosing flexibly from a range of strategies. [L.8.4]
- a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. [L.8.4a]
 - b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *precede*, *recede*, *secede*). [L.8.4b]
 - c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. [L.8.4c]
 - d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). [L.8.4d]
40. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. [L.8.5]
- a. Interpret figures of speech (e.g. verbal irony, puns) in context. [L.8.5a]
 - b. Use the relationship between particular words to better understand each of the words. [L.8.5b]
 - c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *bullheaded*, *willful*, *firm*, *persistent*, *resolute*). [L.8.5c]
41. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. [L.8.6]

GRADE K

In kindergarten, instructional time should focus on two critical areas. These areas are (1) representing, relating, and operating on whole numbers, initially with sets of objects; and (2) describing shapes and space. More learning time in kindergarten should be focused on number rather than other topics.

Important information regarding these two critical areas of instruction follows:

- (1) Students use numbers, including written numerals, to represent quantities and to solve quantitative problems such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as $5 + 2 = 7$ and $7 - 2 = 5$. (Kindergarten students should see addition and subtraction equations, and although not required, student writing of equations in kindergarten is encouraged.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.
- (2) Students describe their physical world using both vocabulary and geometric ideas, including shape, orientation, and spatial relations. They identify, name, and describe basic two-dimensional shapes such as squares, triangles, circles, rectangles, and hexagons presented in a variety of ways, including using different sizes and orientations. Students also identify three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

Students will:

Counting and Cardinality

Know number names and the count sequence.

1. Count to 100 by ones and by tens. [K-CC1]
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). [K-CC2]
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). [K-CC3]

Count to tell the number of objects.

4. Understand the relationship between numbers and quantities; connect counting to cardinality. [K-CC4]
 - a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each numbername with one and only one object. [K-CC4a]
 - b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. [K-CC4b]

c. Understand that each successive number name refers to a quantity that is one larger.
[K-CC4c]

5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. [K-CC5]

Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.) [K-CC6]
7. Compare two numbers between 1 and 10 presented as written numerals. [K-CC7]

Operations and Algebraic Thinking

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

8. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. (Drawings need not show details, but should show the mathematics in the problem. This applies wherever drawings are mentioned in the Standards.) [K-OA1]
9. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. [K-OA2]
10. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$). [K-OA3]
11. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. [K-OA4]
12. Fluently add and subtract within 5. [K-OA5]

Number and Operations in Base Ten

Work with numbers 11–19 to gain foundations for place value.

13. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. [K-NBT1]

Measurement and Data

Describe and compare measurable attributes.

14. Describe measurable attributes of objects such as length or weight. Describe several measurable attributes of a single object. [K-MD1]
15. Directly compare two objects, with a measurable attribute in common, to see which object has “more of” or “less of” the attribute, and describe the difference. [K-MD2]
Example: Directly compare the heights of two children, and describe one child as taller or shorter.

Classify objects and count the number of objects in each category.

16. Classify objects into given categories; count the number of objects in each category, and sort the categories by count. (Limit category counts to be less than or equal to 10.) [K-MD3]

Geometry

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

17. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*. [K-G1]
18. Correctly name shapes regardless of their orientations or overall size. [K-G2]
19. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). [K-G3]

Analyze, compare, create, and compose shapes.

20. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices or “corners”), and other attributes (e.g., having sides of equal length). [K-G4]
21. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. [K-G5]
22. Compose simple shapes to form larger shapes. [K-G6]
Example: “*Can you join these two triangles with full sides touching to make a rectangle?*”

GRADE1

In Grade 1, instructional time should focus on four critical areas. These areas are (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

Important information regarding these four critical areas of instruction follows:

- (1) Students develop strategies for adding and subtracting whole numbers based on prior work with small numbers. They use a variety of models, including discrete objects and length-based models such as cubes connected to form lengths; to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction; and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction such as adding two is the same as counting on two. They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties such as “making tens” to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, students build their understanding of the relationship between addition and subtraction.
- (2) Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare whole numbers, at least to 100, to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones, especially recognizing the numbers 11 to 19 as composed of a ten and some ones. Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.
- (3) Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating, the mental activity of building up the length of an object with equal-sized units, and the transitivity principle for indirect measurement. Students should apply the principle of transitivity of measurement to make indirect comparisons, although they need not use this technical term.
- (4) Students compose and decompose plane or solid figures, including putting two triangles together to make a quadrilateral, and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different to develop the background for measurement and initial understandings of properties such as congruence and symmetry.

Students will:

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (See Appendix A, Table 1.) [1-OA1]
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. [1-OA2]

Understand and apply properties of operations and the relationship between addition and subtraction.

3. Apply properties of operations as strategies to add and subtract. (Students need not use formal terms for these properties.) [1-OA3]
Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known
(Commutative property of addition).
To add $2 + 6 + 4$, the second two numbers can be added to make a ten,
so $2 + 6 + 4 = 2 + 10 = 12$ (Associative property of addition).
4. Understand subtraction as an unknown-addend problem. [1-OA4] Example:
Subtract $10 - 8$ by finding the number that makes 10 when added to 8.

Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). [1-OA5]
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$). [1-OA6]

Work with addition and subtraction equations.

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. [1-OA7]
Example: Which of the following equations are true and which are false:
 $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$?
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. [1-OA8]
Example: Determine the unknown number that makes the equation true in each of the equations, $8 + ? = 11$, $5 = \sim - 3$, and $6 + 6 = \sim$.

Number and Operations in Base Ten

Extend the counting sequence.

- Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. [1-NBT1]

Understand place value.

- Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: [1-NBT2]
 - 10 can be thought of as a bundle of ten ones, called a “ten.” [1-NBT2a]
 - The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. [1-NBT2b]
 - The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). [1-NBT2c]
- Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$. [1-NBT3]

Use place value understanding and properties of operations to add and subtract.

- Add within 100, including adding a two-digit number and a one-digit number and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method, and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. [1-NBT4]
- Given a two-digit number, mentally find 10 more or 10 less than the number without having to count; explain the reasoning used. [1-NBT5]
- Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method, and explain the reasoning used. [1-NBT6]

Measurement and Data

Measure lengths indirectly and by iterating length units.

- Order three objects by length; compare the lengths of two objects indirectly by using a third object. [1-MD1]
- Express the length of an object as a whole number of length units by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.* [1-MD2]

Tell and write time.

17. Tell and write time in hours and half-hours using analog and digital clocks. [1-MD3]

Represent and interpret data.

18. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. [1-MD4]

Geometry

Reason with shapes and their attributes.

19. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. [1-G1]
20. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. (Students do not need to learn formal names such as “right rectangular prism.”) [1-G2]
21. Partition circles and rectangles into two and four equal shares; describe the shares using the words *halves*, *fourths*, and *quarters*; and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. [1-G3]

GRADE 2

In Grade 2, instructional time should focus on four critical areas. These areas are (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes. Important information regarding these four critical areas of instruction follows:

- (1) Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones—as well as number relationships involving these units, including comparing. Students understand multi-digit numbers, up to 1000, written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones such as 853 is 8 hundreds + 5 tens + 3 ones.
- (2) Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction. Students develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.
- (3) Students recognize the need for standard units of measure, including centimeter and inch, and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.
- (4) Students describe and analyze shapes by examining their sides and angles. They investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Students will:

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. (See Appendix A, Table 1.) [2-OA1]

Add and subtract within 20.

2. Fluently add and subtract within 20 using mental strategies. (See standard 6, Grade 1, for a list of mental strategies.) By end of Grade 2, know from memory all sums of two one-digit numbers. [2-OA2]

Work with equal groups of objects to gain foundations for multiplication.

3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. [2-OA3]
4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. [2-OA4]

Number and Operations in Base Ten

Understand place value.

5. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: [2-NBT1]
 - a. 100 can be thought of as a bundle of ten tens, called a “hundred.” [2-NBT1a]
 - b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). [2-NBT1b]
6. Count within 1000; skip-count by 5s, 10s, and 100s. [2-NBT2]
7. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. [2-NBT3]
8. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits using $>$, $=$, and $<$ symbols to record the results of comparisons. [2-NBT4]

Use place value understanding and properties of operations to add and subtract.

9. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. [2-NBT5]
10. Add up to four two-digit numbers using strategies based on place value and properties of operations. [2-NBT6]
11. Add and subtract within 1000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. [2-NBT7]
12. Mentally add 10 or 100 to a given number 100 – 900, and mentally subtract 10 or 100 from a given number 100 – 900. [2-NBT8]
13. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.) [2-NBT9]

Measurement and Data

Measure and estimate lengths in standard units.

14. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. [2-MD1]
15. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. [2-MD2]
16. Estimate lengths using units of inches, feet, centimeters, and meters. [2-MD3]
17. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. [2-MD4]

Relate addition and subtraction to length.

18. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. [2-MD5]
19. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2..., and represent whole-number sums and differences within 100 on a number line diagram. [2-MD6]

Work with time and money.

20. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. [2-MD7]
21. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. [2-MD8] Example: If you have 2 dimes and 3 pennies, how many cents do you have?

Represent and interpret data.

22. Generate measurement data by measuring lengths of several objects to the nearest whole unit or by making repeated measurements of the same object. Show the measurements by making a line plot where the horizontal scale is marked off in whole-number units. [2-MD9]
23. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. (See Appendix A, Table 1.) [2-MD10]

Geometry

Reason with shapes and their attributes.

24. Recognize and draw shapes having specified attributes such as a given number of angles or a given number of equal faces. (Sizes are compared directly or visually, not compared by measuring.) Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. [2-G1]
25. Partition a rectangle into rows and columns of same-size squares, and count to find the total number of them. [2-G2]
26. Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc.; and describe the whole as two halves, three thirds, or four fourths. Recognize that equal shares of identical wholes need not have the same shape. [2-G3]

GRADE 3

In Grade 3, instructional time should focus on four critical areas. These areas are (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes. Important information regarding these four critical areas of instruction follows:

- (1) Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models. Multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.
- (2) Students develop an understanding of fractions, beginning with unit fractions. They view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. For example, $\frac{1}{2}$ of the paint in a small bucket could be less paint than $\frac{1}{3}$ of the paint in a larger bucket, but $\frac{1}{3}$ of a ribbon is longer than $\frac{1}{5}$ of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.
- (3) Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, keeping in mind that a square with sides of unit length is the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication and justify using multiplication to determine the area of a rectangle.
- (4) Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

Students will:

Operations and Algebraic Thinking

Represent and solve problems involving multiplication and division.

1. Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. [3-OA1] Example: Describe a context in which a total number of objects can be expressed as 5×7 .
2. Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. [3-OA2]
Example: Describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. (See Appendix A, Table 2.) [3-OA3]
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. [3-OA4]
Example: Determine the unknown number that makes the equation true in each of the equations, $8 \times ? = 48$, $5 = \sim \div 3$, and $6 \times 6 = ?$.

Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations as strategies to multiply and divide. (Students need not use formal terms for these properties.) [3-OA5]
Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication)
 $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication)
Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property)
6. Understand division as an unknown-factor problem. [3-OA6]
Example: Find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.

Multiply and divide within 100.

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. [3-OA7]

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).) [3-OA8]
9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. [3-OA9]
Example: Observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

Number and Operations in Base Ten

Use place value understanding and properties of operations to perform multi-digit arithmetic. (A range of algorithms may be used.)

10. Use place value understanding to round whole numbers to the nearest 10 or 100. [3-NBT1]
11. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. [3-NBT2]
12. Multiply one-digit whole numbers by multiples of 10 in the range 10 - 90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations. [3-NBT3]

Number and Operations – Fractions

(Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)

Develop understanding of fractions as numbers.

13. Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts and size $\frac{1}{b}$. [3-NF1]
14. Understand a fraction as a number on the number line; represent fractions on a number line diagram. [3-NF2]
 - a. Represent a fraction $\frac{1}{b}$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $\frac{1}{b}$ and that the endpoint of the part based at 0 locates the number $\frac{1}{b}$ on the number line. [3-NF2a]

b. Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths $\frac{1}{b}$ from 0.

Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line. [3-NF2b]

15. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. [3-NF3]

a. Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line. [3-NF3a]

b. Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$. Explain why the fractions are equivalent, e.g., by using a visual fraction model. [3-NF3b]

c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. [3-NF3c]

Examples: Express 3 in the form $3 = \frac{3}{1}$; recognize that $\frac{6}{1} = 6$; locate $\frac{4}{1}$ and 1 at the

same point of a number line diagram.

d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model. [3-NF3d]

Measurement and Data

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

16. Tell and write time to the nearest minute, and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram. [3-MD1]

17. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). (Excludes compound units such as cm^3 and finding the geometric volume of a container.) Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems (problems involving notions of “times as much”).) (See Appendix A, Table 2.) [3-MD2]

Represent and interpret data.

18. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. [3-MD3]

Example: Draw a bar graph in which each square in the bar graph might represent 5 pets.

19. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters. [3-MD4]

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

20. Recognize area as an attribute of plane figures, and understand concepts of area measurement. [3-MD5]
- A square with side length 1 unit called “a unit square,” is said to have “one square unit” of area and can be used to measure area. [3-MD5a]
 - A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. [3-MD5b]
21. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). [3-MD6]
22. Relate area to the operations of multiplication and addition. [3-MD7]
- Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. [3-MD7a]
 - Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. [3-MD7b]
 - Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. [3-MD7c]
 - Recognize area as additive. Find areas of rectilinear figures by decomposing them into nonoverlapping rectangles and adding the areas of the nonoverlapping parts, applying this technique to solve real-world problems. [3-MD7d]

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

23. Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters. [3-MD8]

Geometry

Reason with shapes and their attributes.

24. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. [3-G1]
25. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. [3-G2] Example: Partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.

GRADE 4

In Grade 4, instructional time should focus on three critical areas. These areas are (1) developing understanding and fluency with multi-digit multiplication and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; and (3) understanding that geometric figures can be analyzed and classified based on their properties such as having parallel sides, perpendicular sides, particular angle measures, and symmetry. Important information regarding these three critical areas of instruction follows:

- (1) Students generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place. They apply their understanding of models for multiplication such as equal-sized groups, arrays, or area models; place value; and properties of operations, in particular the distributive property; as they develop, discuss, and use efficient, accurate, and generalizable methods to compute products of multi-digit whole numbers. Depending on the numbers and the context, they select and accurately apply appropriate methods to estimate or mentally calculate products. They develop fluency with efficient procedures for multiplying whole numbers, understand and explain why the procedures work based on place value and properties of operations, and use them to solve problems. Students apply their understanding of models for division, place value, properties of operations, and the relationship of division to multiplication as they develop, discuss, and use efficient, accurate, and generalizable procedures to find quotients involving multi-digit dividends. They select and accurately apply appropriate methods to estimate and mentally calculate quotients and interpret remainders based upon the context.
- (2) Students develop understanding of fraction equivalence and operations with fractions. They recognize that two different fractions can be equal, such as $\frac{15}{9} = \frac{5}{3}$, and they develop methods for generating and recognizing equivalent fractions. Students extend previous understandings regarding building fractions from unit fractions, composing fractions from unit fractions, decomposing fractions into unit fractions, and using the meaning of fractions and the meaning of multiplication to multiply a fraction by a whole number.
- (3) Students describe, analyze, compare, and classify two-dimensional shapes. Through building, drawing, and analyzing two-dimensional shapes, students deepen their understanding of properties of two-dimensional objects and the use of them to solve problems involving symmetry.

Students will:

Operations and Algebraic Thinking

Use the four operations with whole numbers to solve problems.

1. Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations. [4-OA1]
2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. (See Appendix A, Table 2.) [4-OA2]
3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. [4-OA3]

Gain familiarity with factors and multiples.

4. Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite. [4-OA4]

Generate and analyze patterns.

5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. [4-OA5]
Example: Given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence, and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

Number and Operations in Base Ten

(Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.)

Generalize place value understanding for multi-digit whole numbers.

6. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. [4-NBT1] Example: Recognize that $700 \div 70 = 10$ by applying concepts of place value and division.
7. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons. [4-NBT2]
8. Use place value understanding to round multi-digit whole numbers to any place. [4-NBT3]

Use place value understanding and properties of operations to perform multi-digit arithmetic.

9. Fluently add and subtract multi-digit whole numbers using the standard algorithm. [4-NBT4]
10. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. [4-NBT5]
11. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. [4-NBT6]

Number and Operations – Fractions

(Grade 4 expectations in this domain are limited to fractions with denominations 2, 3, 4, 5, 6, 8, 10, 12, and 100.)

Extend understanding of fraction equivalence and ordering.

12. Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{na}{nb}$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. [4-NF1]
13. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model. [4-NF2]

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

14. Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$. [4-NF3]
 - a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. [4-NF3a]
 - b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. [4-NF3b]

Examples: $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$; $\frac{1}{3} = \frac{1}{6} + \frac{1}{6}$; $\frac{2}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$.
 - c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. [4-NF3c]
 - d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem. [4-NF3d]

15. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. [4-NF4]

- a. Understand a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$. [4-NF4a]

Example: Use a visual fraction model to represent $\frac{5}{4}$ as the product $5 \times (\frac{1}{4})$, recording the conclusion by the equation $\frac{5}{4} = 5 \times (\frac{1}{4})$.

- b. Understand a multiple of $\frac{a}{b}$ as a multiple of $\frac{1}{b}$, and use this understanding to multiply a fraction by a whole number. [4-NF4b]

Example: Use a visual fraction model to express $3 \times (\frac{2}{5})$ as $6 \times (\frac{1}{5})$, recognizing this product as $\frac{6}{5}$. (In general, $n \times (\frac{a}{b}) = \frac{(na)}{b}$.)

- c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. [4-NF4c]

Example: If each person at a party will eat $\frac{3}{8}$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between which two whole numbers does your answer lie?

Understand decimal notation for fractions, and compare decimal fractions.

16. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. (Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.) [4-NF5]

Example: Express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.

17. Use decimal notation for fractions with denominators 10 or 100. [4-NF6]

Example: Rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

18. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model. [4-NF7]

Measurement and Data

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

19. Know relative sizes of measurement units within one system of units, including km, m, cm; kg, g; lb, oz; l, ml; and hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. [4-MD1]
 Examples: Know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36),
20. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. [4-MD2]
21. Apply the area and perimeter formulas for rectangles in real-world and mathematical problems. [4-MD3]
 Example: Find the width of a rectangular room given the area of the flooring and the length by viewing the area formula as a multiplication equation with an unknown factor.

Represent and interpret data.

22. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. [4-MD4]
 Example: From a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.

Geometric measurement: understand concepts of angle and measure angles.

23. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. [4-MD5]
 a. An angle is measured with reference to a circle with its center at the common endpoint of the rays by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a “one-degree angle” and can be used to measure angles. [4-MD5a]
 b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees. [4-MD5b]
24. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. [4-MD6]
25. Recognize angle measure as additive. When an angle is decomposed into nonoverlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real-world or mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure. [4-MD7]

Geometry

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

26. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. [4-G1]
27. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. [4-G2]
28. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. [4-G3]

GRADE 5

In Grade 5, instructional time should focus on three critical areas. These areas are (1) developing fluency with addition and subtraction of fractions and developing understanding of the multiplication of fractions and of division of fractions in limited cases, such as unit fractions divided by whole numbers and whole numbers divided by unit fractions; (2) extending division to two-digit divisors, integrating decimal fractions into the place value system, developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; and (3) developing understanding of volume. Important information regarding these three critical areas of instruction follows:

- (1) Students apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators as equivalent calculations with like denominators. They develop fluency in calculating sums and differences of fractions and make reasonable estimates of them. Students also use the meaning of fractions, of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for multiplying and dividing fractions make sense. However, this is limited to the case of dividing unit fractions by whole numbers and whole numbers by unit fractions.
- (2) Students develop understanding of why division procedures work based on the meaning of base-ten numerals and properties of operations. They finalize fluency with multi-digit addition, subtraction, multiplication, and division. Students apply their understandings of models for decimals, decimal notation, and properties of operations to add and subtract decimals to hundredths. They develop fluency in these computations and make reasonable estimates of their results. Students use the relationship between decimals and fractions as well as the relationship between finite decimals and whole numbers, as for example, a finite decimal multiplied by an appropriate power of 10 is a whole number, to understand and explain why the procedures for multiplying and dividing finite decimals make sense. They compute products and quotients of decimals to hundredths efficiently and accurately.
- (3) Students recognize volume as an attribute of three-dimensional space. They understand that volume can be measured by finding the total number of same-size units of volume required to fill the space without gaps or overlaps. They understand that a 1-unit by 1-unit by 1-unit cube is the standard unit for measuring volume. Students select appropriate units, strategies, and tools for solving problems that involve estimating and measuring volume. They decompose three-dimensional shapes and find volumes of right rectangular prisms by viewing them as decomposed into layers of arrays of cubes. They measure necessary attributes of shapes in order to determine volumes to solve real-world and mathematical problems.

Students will:

Operations and Algebraic Thinking

Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. [5-OA1]
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. [5-OA2]
Examples: Express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18,932 + 921)$ is three times as large as $18,932 + 921$, without having to calculate the indicated sum or product.

Analyze patterns and relationships.

3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. [5-OA3]
Example: Given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.

Number and Operations in Base Ten

Understand the place value system.

4. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left. [5-NBT1]
5. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. [5-NBT2]
6. Read, write, and compare decimals to thousandths. [5-NBT3]
 - a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (\frac{1}{10}) + 9 \times (\frac{1}{100}) + 2 \times (\frac{1}{1000})$. [5-NBT3a]
 - b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons. [5-NBT3b]
7. Use place value understanding to round decimals to any place. [5-NBT4]

Perform operations with multi-digit whole numbers and with decimals to hundredths.

8. Fluently multiply multi-digit whole numbers using the standard algorithm. [5-NBT5]
9. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. [5-NBT6]
10. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method, and explain the reasoning used. [5-NBT7]

Number and Operations – Fractions

Use equivalent fractions as a strategy to add and subtract fractions.

11. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. [5-NF1]

Example: $2\frac{5}{3} + 1\frac{5}{4} = 3\frac{15}{12} + 1\frac{15}{12} = 4\frac{30}{12} = 4\frac{5}{2}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$.)

12. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally, and assess the reasonableness of answers. [5-NF2]

Example: Recognize an incorrect result $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$ by observing that $\frac{3}{7} < \frac{1}{2}$.

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

13. Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. [5-NF3]

Examples: Interpret $\frac{3}{4}$ as the result of dividing 3 by 4, noting that $\frac{3}{4}$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $\frac{3}{4}$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between which two whole numbers does your answer lie?

14. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. [5-NF4]

- a. Interpret the product $(\frac{a}{b}) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. [5-NF4a]

Example: Use a visual fraction model to show $(\frac{2}{3}) \times 4 = 8$, and create a story

context for this equation. Do the same with $(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}$. (In general,

$$(\frac{a}{b}) \times (\frac{c}{d}) = \frac{ac}{bd}$$

- b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas. [5-NF4b]

15. Interpret multiplication as scaling (resizing), by: [5-NF5]

- a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. [5-NF5a]
- b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case), explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number, and relating the principle of fraction

equivalence $a = (\frac{\frac{n}{n} a}{\frac{n}{n} b})$ to the effect of multiplying $\frac{a}{b}$ by 1. [5-NF5b]

16. Solve real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. [5-NF6]

17. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. (Students able to multiply fractions in general can develop strategies to divide fractions in general by reasoning about the relationship between multiplication and division. However, division of a fraction by a fraction is not a requirement at this grade.) [5-NF7]

- a. Interpret division of a unit fraction by a nonzero whole number, and compute such quotients. [5-NF7a]

Example: Create a story context for $(\frac{1}{3}) \div 4$, and use a visual fraction model to show

the quotient. Use the relationship between multiplication and division to explain that $(\frac{1}{3}) \div 4 = \frac{1}{12}$ because $(\frac{1}{12}) \times 4 = \frac{1}{3}$.

- b. Interpret division of a whole number by a unit fraction, and compute such quotients. [5-NF7b]

Example: Create a story context for $4 \div (\frac{1}{5})$, and use a visual fraction model to show

the quotient. Use the relationship between multiplication and division to explain that $4 \div (\frac{1}{5}) = 20$ because $20 \times (\frac{1}{5}) = 4$.

- c. Solve real-world problems involving division of unit fractions by nonzero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. [5-NF7c]

Examples: How much chocolate will each person get if 3 people share $\frac{1}{2}$ lb of chocolate equally? How many $\frac{1}{3}$ -cup servings are in 2 cups of raisins?

Measurement and Data

Convert like measurement units within a given measurement system.

18. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multistep, real-world problems. [5-MD1]

Represent and interpret data.

19. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}, \frac{1}{4}, \frac{1}{8}$).

Use operations on fractions for this grade to solve problems involving information presented in line plots. [5-MD2]

Example: Given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

20. Recognize volume as an attribute of solid figures, and understand concepts of volume measurement. [5-MD3]
- A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. [5-MD3a]
 - A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units. [5-MD3b]
21. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. [5-MD4]
22. Relate volume to the operations of multiplication and addition, and solve real-world and mathematical problems involving volume. [5-MD5]
- Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. [5-MD5a]
 - Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems. [5-MD5b]

- c. Recognize volume as additive. Find volumes of solid figures composed of two nonoverlapping right rectangular prisms by adding the volumes of the nonoverlapping parts, applying this technique to solve real-world problems. [5-MD5c]

Geometry

Graph points on the coordinate plane to solve real-world and mathematical problems.

23. Use a pair of perpendicular number lines, called axes, to define a coordinate system with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x -axis and x -coordinate, y -axis and y -coordinate). [5-G1]
24. Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. [5-G2]

Classify two-dimensional figures into categories based on their properties.

25. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. [5-G3]
Example: All rectangles have four right angles, and squares are rectangles, so all squares have four right angles.
26. Classify two-dimensional figures in a hierarchy based on properties. [5-G4]

GRADE 6

In Grade 6, instructional time should focus on four critical areas. These areas are (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking. Important information regarding these four critical areas of instruction follows:

- (1) Students use reasoning about multiplication and division to solve ratio and rate problems about quantities. By viewing equivalent ratios and rates as deriving from and extending pairs of rows or columns in the multiplication table, and by analyzing simple drawings that indicate the relative size of quantities, students connect their understanding of multiplication and division with ratios and rates. Thus students expand the scope of problems for which they can use multiplication and division to solve problems, and they connect ratios and fractions. They solve a wide variety of problems involving ratios and rates.
- (2) Students use the meaning of fractions, the meanings of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for dividing fractions make sense. They use these operations to solve problems. Students extend their previous understandings of number and the ordering of numbers to the full system of rational numbers, which includes negative rational numbers, and in particular, negative integers. They reason about the order and absolute value of rational numbers and about the location of points in all four quadrants of the coordinate plane.
- (3) Students understand the use of variables in mathematical expressions. They write expressions and equations that correspond to given situations, evaluate expressions, and use expressions and formulas to solve problems. Students understand that expressions in different forms can be equivalent, and they use the properties of operations to rewrite expressions in equivalent forms. They know that the solutions of an equation are the values of the variables that make the equation true. Students use properties of operations and the idea of maintaining the equality of both sides of an equation to solve simple one-step equations. They construct and analyze tables, such as tables of quantities that are in equivalent ratios, and they use equations such as $3x = y$ to describe relationships between quantities.
- (4) Building on and reinforcing their understanding of number, students begin to develop their ability to think statistically. Students recognize that a data distribution may not have a definite center and that different ways to measure center yield different values. The median measures center in the sense that it is roughly the middle value. The mean measures center in the sense that it is the value that each data point would take on if the total of the data values were redistributed equally, and also in the sense that it is a balance point. They recognize that a measure of variability, the interquartile range or mean absolute deviation, can also be useful for summarizing data because two very different sets of data can have the same mean and median yet be distinguished by their variability. Students learn to describe and summarize numerical data sets, including identifying clusters, peaks, gaps, and symmetry, with consideration to the context in which the data were collected.

Students in Grade 6 also build on their elementary school work with area by reasoning about relationships among shapes to determine area, surface area, and volume. They find areas of right triangles, other triangles, and special quadrilaterals by decomposing these shapes, rearranging or removing pieces, and relating the shapes to rectangles. Using these methods, students discuss, develop, and justify formulas for areas of triangles and parallelograms. Students find areas of polygons and surface areas of prisms and pyramids by decomposing them into pieces whose area they can determine. They reason about right rectangular prisms with fractional side lengths to extend formulas for the volume of a right rectangular prism to fractional side lengths. They prepare for work on scale drawings and constructions in Grade 7 by drawing polygons in the coordinate plane.

Students will:

Ratios and Proportional Relationships

Understand ratio concepts and use ratio reasoning to solve problems.

1. Understand the concept of a ratio, and use ratio language to describe a ratio relationship between two quantities. [6-RP1]

Examples: “The ratio of wings to beaks in the bird house at the zoo was 2:1 because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”
2. Understand the concept of a unit rate $\frac{a}{b}$ associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. [6-RP2]

Examples: “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $\frac{3}{4}$ cup of flour for each cup of sugar.” “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.” (Expectations for unit rates in this grade are limited to non-complex fractions.)
3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. [6-RP3]
 - a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. [6-RP3a]
 - b. Solve unit rate problems including those involving unit pricing and constant speed. [6-RP3b]

Example: If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?
 - c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $\frac{30}{100}$ times the quantity); solve problems involving finding the whole, given a part and the percent. [6-RP3c]
 - d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities. [6-RP3d]

The Number System

Apply and extend previous understandings of multiplication and division to divide by fractions.

4. Interpret and compute quotients of fractions, and solve word problems involving division of fractions, e.g., by using visual fraction models and equations to represent the problem.

[6-NS1]

Examples: Create a story context for $(\frac{2}{3}) \div (\frac{3}{4})$, and use a visual fraction model to show the

quotient; use the relationship between multiplication and division to explain that

$(\frac{2}{3}) \div (\frac{3}{4}) = \frac{8}{9}$ because $\frac{3}{4}$ of $\frac{8}{9}$ is $\frac{2}{3}$. (In general, $(\frac{a}{b}) \div (\frac{c}{d}) = \frac{ad}{bc}$.) How much

chocolate will each person get if 3 people share $\frac{1}{2}$ lb of chocolate equally? How

many $\frac{3}{4}$ -cup servings are in $\frac{2}{3}$ of a cup of yogurt? How wide is a rectangular strip

of land with length $\frac{3}{4}$ mi and area $\frac{1}{2}$ square mi?

Compute fluently with multi-digit numbers and find common factors and multiples.

5. Fluently divide multi-digit numbers using the standard algorithm. [6-NS2]
6. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. [6-NS3]
7. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. [6-NS4]

Example: Express $36 + 8$ as $4(9 + 2)$.

Apply and extend previous understandings of numbers to the system of rational numbers.

8. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts explaining the meaning of 0 in each situation. [6-NS5]
9. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates. [6-NS6]
- Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite. [6-NS6a]
 - Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. [6-NS6b]

- c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. [6-NS6c]
10. Understand ordering and absolute value of rational numbers. [6-NS7]
- Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. [6-NS7a]
Example: Interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.
 - Write, interpret, and explain statements of order for rational numbers in real-world contexts. [6-NS7b] Example: Write $-3^\circ\text{C} > -7^\circ\text{C}$ to express the fact that -3°C is warmer than -7°C .
 - Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. [6-NS7c]
Example: For an account balance of -30 dollars, write $|-30| = 30$ to describe the size of the debt in dollars.
 - Distinguish comparisons of absolute value from statements about order. [6-NS7d]
Example: Recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.
11. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate. [6-NS8]

Expressions and Equations

Apply and extend previous understandings of arithmetic to algebraic expressions.

12. Write and evaluate numerical expressions involving whole-number exponents. [6-EE1]
13. Write, read, and evaluate expressions in which letters stand for numbers. [6-EE2]
- Write expressions that record operations with numbers and with letters standing for numbers. [6-EE2a] Example: Express the calculation, “Subtract y from 5,” as $5 - y$.
 - Identify parts of an expression using mathematical terms (*sum*, *term*, *product*, *factor*, *quotient*, *coefficient*); view one or more parts of an expression as a single entity. [6-EE2b]
Example: Describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.
 - Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). [6-EE2c]
Example: Use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1$.

14. Apply the properties of operations to generate equivalent expressions. [6-EE3]
 Example: Apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.
15. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). [6-EE4]
 Example: The expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y represents.

Reason about and solve one-variable equations and inequalities.

16. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true. [6-EE5]
17. Use variables to represent numbers, and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number or, depending on the purpose at hand, any number in a specified set. [6-EE6]
18. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q , and x are all nonnegative rational numbers. [6-EE7]
19. Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams. [6-EE8]

Represent and analyze quantitative relationships between dependent and independent variables.

20. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. [6-EE9]
 Example: In a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.

Geometry

Solve real-world and mathematical problems involving area, surface area, and volume.

21. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. [6-G1]

22. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems. [6-G2]
23. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems. [6-G3]
24. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. [6-G4]

Statistics and Probability

Develop understanding of statistical variability.

25. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. [6-SP1]
Example: “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.
26. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape. [6-SP2]
27. Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number. [6-SP3]

Summarize and describe distributions.

28. Display numerical data in plots on a number line, including dot plots, histograms, and box plots. [6-SP4]
29. Summarize numerical data sets in relation to their context, such as by: [6-SP5]
 - a. Reporting the number of observations. [6-SP5a]
 - b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. [6-SP5b]
 - c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation) as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. [6-SP5c]
 - d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered. [6-SP5d]

GRADE 7

In Grade 7, instructional time should focus on four critical areas. These areas are (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. Important information regarding these four critical areas of instruction follows:

(1) Students extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. They use their understanding of ratios and proportionality to solve a wide variety of percent problems, including those involving discounts, interest, taxes, tips, and percent increase or decrease. Students solve problems about scale drawings by relating corresponding lengths between the objects or by using the fact that relationships of lengths within an object are preserved in similar objects. Students graph proportional relationships and understand the unit rate informally as a measure of the steepness of the related line, called the slope. They distinguish proportional relationships from other relationships.

(2) Students develop a unified understanding of number, recognizing fractions, decimals that have a finite or a repeating decimal representation, and percents as different representations of rational numbers. They extend addition, subtraction, multiplication, and division to all rational numbers, maintaining the properties of operations and the relationships between addition and subtraction and multiplication and division. By applying these properties and by viewing negative numbers in terms of everyday contexts, such as amounts owed or temperatures below zero, students explain and interpret the rules for adding, subtracting, multiplying, and dividing with negative numbers. Students use the arithmetic of rational numbers as they formulate expressions and equations in one variable and use these equations to solve problems.

(3) Students continue their work with area from Grade 6, solving problems involving the area and circumference of a circle and surface area of three-dimensional objects. In preparation for work on congruence and similarity in Grade 8, they reason about relationships among two-dimensional figures using scale drawings and informal geometric constructions, and they gain familiarity with the relationships between angles formed by intersecting lines. Students work with three-dimensional figures, relating them to two-dimensional figures by examining cross-sections. They solve real-world and mathematical problems involving area, surface area, and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

(4) Students build on their previous work with single data distributions to compare two data distributions and address questions about differences between populations. They begin informal work with random sampling to generate data sets and learn about the importance of representative samples for drawing inferences.

Students will:

Ratios and Proportional Relationships

Analyze proportional relationships and use them to solve real-world and mathematical problems.

1. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units. [7-RP1]

2 Example: If a person walks $\frac{1}{4}$ mile in each $\frac{1}{2}$ hour, compute the unit rate as the complex

fraction $\frac{\frac{1}{4}}{\frac{1}{2}}$ miles per hour, equivalently 2 miles per hour.

2. Recognize and represent proportional relationships between quantities. [7-RP2]
 - a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. [7-RP2a]
 - b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. [7-RP2b]
 - c. Represent proportional relationships by equations. [7-RP2c]

Example: If total cost t is proportional to the number n of items purchased at a constant price p , the relationship between the total cost and the number of items can be expressed as $t = pn$.
 - d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate. [7-RP2d]
3. Use proportional relationships to solve multistep ratio and percent problems. [7-RP3]

Examples: Sample problems may involve simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, and percent error.

The Number System

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

4. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. [7-NS1]
 - a. Describe situations in which opposite quantities combine to make 0. [7-NS1a]

Example: A hydrogen atom has 0 charge because its two constituents are oppositely charged.

- b. Understand $p + q$ as the number located a distance $|q|$ from p , in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. [7-NS1b]
 - c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. [7-NS1c]
 - d. Apply properties of operations as strategies to add and subtract rational numbers. [7-NS1d]
5. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. [7-NS2]
- a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts. [7-NS2a]
 - b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with nonzero divisor) is a rational number. If p and q are integers, then $-\left(\frac{p}{q} - \frac{(-p)}{q}\right) = \frac{p}{(-q)}$. Interpret quotients of rational numbers by describing real-world contexts. [7-NS2b]
 - c. Apply properties of operations as strategies to multiply and divide rational numbers. [7-NS2c]
 - d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats. [7-NS2d]
6. Solve real-world and mathematical problems involving the four operations with rational numbers. (Computations with rational numbers extend the rules for manipulating fractions to complex fractions.) [7-NS3]

Expressions and Equations

Use properties of operations to generate equivalent expressions.

- 7. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. [7-EE1]
- 8. Understand that rewriting an expression in different forms in a problem context can shed light on the problem, and how the quantities in it are related. [7-EE2] Example: $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

9. Solve multistep real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form, convert between forms as appropriate, and assess the reasonableness of answers using mental computation and estimation strategies. [7-EE3]

Examples: If a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

10. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. [7-EE4]
- a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. [7-EE4a]
- Example: The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?
- b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality, and interpret it in the context of the problem. [7-EE4b]
- Example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.

Geometry

Draw, construct, and describe geometrical figures and describe the relationships between them.

11. Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale. [7-G1]
12. Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle. [7-G2]
13. Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids. [7-G3]

Solve real-world and mathematical problems involving angle measure, area, surface area, and volume.

14. Know the formulas for the area and circumference of a circle, and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle. [7-G4]
15. Use facts about supplementary, complementary, vertical, and adjacent angles in a multistep problem to write and solve simple equations for an unknown angle in a figure. [7-G5]
16. Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. [7-G6]

Statistics and Probability

Use random sampling to draw inferences about a population.

17. Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences. [7-SP1]
18. Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. [7-SP2]
Example: Estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.

Draw informal comparative inferences about two populations.

19. Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. [7-SP3]
Example: The mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.
20. Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. [7-SP4]
Example: Decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.

Investigate chance processes and develop, use, and evaluate probability models.

21. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. [7-SP5]
22. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. [7-SP6]
Example: When rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.
23. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. [7-SP7]
 - a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. [7-SP7a]
Example: If a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.
 - b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. [7-SP7b]
Example: Find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?
24. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. [7-SP8]
 - a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. [7-SP8a]
 - b. Represent sample spaces for compound events using methods such as organized lists, tables, and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event. [7-SP8b]
 - c. Design and use a simulation to generate frequencies for compound events. [7-SP8c]
Example: Use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?

GRADE 8

In Grade 8, instructional time should focus on three critical areas. These areas are (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; and (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence and understanding and applying the Pythagorean Theorem. Important information regarding these three critical areas of instruction follows:

- (1) Students use linear equations and systems of linear equations to represent, analyze, and solve a variety of problems. Students recognize equations for proportions such as $y = m$ or $y = mx$ as special linear equations such as $y = mx + b$, understanding that the constant of proportionality, m , is the slope, and the graphs are lines through the origin. They understand that the slope, m , of a line is a constant rate of change, so that if the input or x -coordinate changes by an amount A , the output or y -coordinate changes by the amount $m \cdot A$. Students also use a linear equation to describe the association between two quantities in bivariate data such as arm span versus height for students in a classroom. At this grade, fitting the model and assessing its fit to the data are done informally. Interpreting the model in the context of the data requires students to express a relationship between the two quantities in question and to interpret components of the relationship, such as slope and y -intercept, in terms of the situation.

Students strategically choose and efficiently implement procedures to solve linear equations in one variable, understanding that when they use the properties of equality and the concept of logical equivalence, they maintain the solutions of the original equation. They solve systems of two linear equations in two variables and relate the systems to pairs of lines in the plane; these intersect, are parallel, or are the same line. Students use linear equations, systems of linear equations, linear functions, and their understanding of slope of a line to analyze situations and solve problems.
- (2) Students grasp the concept of a function as a rule that assigns to each input exactly one output. They understand that functions describe situations where one quantity determines another. Students can translate among representations and partial representations of functions, while noting that tabular and graphical representations may be partial representations, and they can describe how aspects of the function are reflected in the different representations.
- (3) Students use ideas about distance and angles, including how they behave under translations, rotations, reflections, and dilations and ideas about congruence and similarity to describe and analyze two-dimensional figures and to solve problems. They show that the sum of the angles in a triangle is the angle formed by a straight line, and that various configurations of lines give rise to similar triangles because of the angles created when a transversal cuts parallel lines. Students understand the statement of the Pythagorean Theorem and its converse, and can explain why the Pythagorean Theorem holds, for example, by decomposing a square in two different ways. They apply the Pythagorean Theorem to find distances between points on the coordinate plane, to find lengths, and to analyze polygons. Students complete their work on volume by solving problems involving cones, cylinders, and spheres.

Students will:

The Number System

Know that there are numbers that are not rational, and approximate them by rational numbers.

1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number. [8-NS1]
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., $\pi\pi$). [8-NS2]

Example: By truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.

Expressions and Equations

Work with radicals and integer exponents.

3. Know and apply the properties of integer exponents to generate equivalent numerical expressions. [8-EE1]
Example: $3^2 \times 3^{-5} = 3^{-3} = \frac{1}{3^3} = \frac{1}{27}$.
4. Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational. [8-EE2]
5. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. [8-EE3]
Example: Estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9 , and determine that the world population is more than 20 times larger.
6. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. [8-EE4]

Understand the connections among proportional relationships, lines, and linear equations.

7. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. [8-EE5]
Example: Compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.
8. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b . [8-EE6]

Analyze and solve linear equations and pairs of simultaneous linear equations.

9. Solve linear equations in one variable. [8-EE7]
 - a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers). [8-EE7a]
 - b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions, using the distributive property and collecting like terms. [8-EE7b]
10. Analyze and solve pairs of simultaneous linear equations. [8-EE8]
 - a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersections of their graphs because points of intersection satisfy both equations simultaneously. [8-EE8a]
 - b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. [8-EE8b]
Example: $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.
 - c. Solve real-world and mathematical problems leading to two linear equations in two variables. [8-EE8c]
Example: Given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.

Functions

Define, evaluate, and compare functions.

11. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. (Function notation is not required in Grade 8.) [8-F1]
12. Compare properties of two functions, each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). [8-F2]
Example: Given a linear function represented by a table of values and linear function represented by an algebraic expression, determine which function has the greater rate of change.

13. Interpret the equation $y = mx + b$ as defining a linear function whose graph is a straight line; give examples of functions that are not linear. [8-F3]
Example: The function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4), and (3,9), which are not on a straight line.

Use functions to model relationships between quantities.

14. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x,y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of linear function in terms of the situation it models and in terms of its graph or a table of values. [8-F4]
15. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally. [8-F5]

Geometry

Understand congruence and similarity using physical models, transparencies, or geometry software.

16. Verify experimentally the properties of rotations, reflections, and translations: [8-G1]
a. Lines are taken to lines, and line segments are taken to line segments of the same length. [8-G1a]
b. Angles are taken to angles of the same measure. [8-G1b]
c. Parallel lines are taken to parallel lines. [8-G1c]
17. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them. [8-G2]
18. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. [8-G3]
19. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. [8-G4]
20. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. [8-G5]
Example: Arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give argument in terms of transversals why this is so.

Understand and apply the Pythagorean Theorem.

21. Explain a proof of the Pythagorean Theorem and its converse. [8-G6]
22. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. [8-G7]
23. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. [8-G8]

Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.

24. Know the formulas for the volumes of cones, cylinders, and spheres, and use them to solve real-world and mathematical problems. [8-G9]

Statistics and Probability

Investigate patterns of association in bivariate data.

25. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. [8-SP1]
26. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line. [8-SP2]
27. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. [8-SP3]
Example: In a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.
28. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. [8-SP4]
Example: Collect data from students in your class on whether or not they have a curfew on school nights, and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?

GRADE K

Kindergarten students enter school with an eagerness to explore the world around them. Although their experiences and background knowledge may be limited, science instruction provides ample opportunities to develop investigative thinking, argumentation, and reasoning in the context of familiar surroundings.

Students develop the foundational skills necessary for future learning in science.

Students in kindergarten learn disciplinary core ideas from the three scientific domains of Physical, Life, and Earth and Space Sciences while demonstrating their learning in the context of the content standards for this grade level. In Physical Science, students investigate forces and interactions. In Life Science, students explore interactions, energy, and dynamics of ecosystems. In Earth and Space Science, students become familiar with Earth's systems while observing the effects of sunlight and studying weather patterns. The disciplinary core ideas of the Engineering, Technology, and Applications of Science (ETS) domain are integrated within the content standards of the three scientific domains and are denoted with an asterisk (*).

Grade K content standards provide students with opportunities for appropriate investigation and observation of the world around them. Through guided participation in specific engineering design projects, they find answers regarding how to use force to change the speed or direction of an object, how to reduce the human impact on the local environment, how to reduce the effects of sunlight, and how to use weather forecasts to prepare for severe weather.

Students will:

Motion and Stability: Forces and Interactions

1. Investigate the resulting motion of objects when forces of different strengths and directions act upon them (e.g., object being pushed, object being pulled, two objects colliding).
2. Use observations and data from investigations to determine if a design solution (e.g., designing a ramp to increase the speed of an object in order to move a stationary object) solves the problem of using force to change the speed or direction of an object.*

Ecosystems: Interactions, Energy, and Dynamics

3. Distinguish between living and nonliving things and verify what living things need to survive (e.g., animals needing food, water, and air; plants needing nutrients, water, sunlight, and air).
4. Gather evidence to support how plants and animals provide for their needs by altering their environment (e.g., tree roots breaking a sidewalk to provide space, red fox burrowing to create a den to raise young, humans growing gardens for food and building roads for transportation).

5. Construct a model of a natural habitat (e.g., terrarium, ant farm, diorama) conducive to meeting the needs of plants and animals native to Alabama.
6. Identify and plan possible solutions (e.g., reducing, reusing, recycling) to lessen the human impact on the local environment.*

Earth's Systems

7. Observe and describe the effects of sunlight on Earth's surface (e.g., heat from the sun causing evaporation of water or increased temperature of soil, rocks, sand, and water).
8. Design and construct a device (e.g., hat, canopy, umbrella, tent) to reduce the effects of sunlight.*
9. Observe, record, and share findings of local weather patterns over a period of time (e.g., increase in daily temperature from morning to afternoon, typical rain and storm patterns from season to season).

Earth and Human Activity

10. Ask questions to obtain information about the purpose of weather forecasts in planning for, preparing for, and responding to severe weather.*

GRADE 1

First-grade students continue to be eager learners who are curious about their world. This inquisitive nature leads them to ask a variety of questions that deepen understanding. Students are developing social skills that enable them to interact in inquiry-based and cooperative-learning opportunities. Students begin to take ownership of their learning experiences by making connections through meaningful investigations.

Students in Grade 1 learn disciplinary core ideas from the three scientific domains of Physical, Life, and Earth and Space Sciences while demonstrating their learning in the context of the content standards for this grade level. In Physical Science, students conduct experiments to discover the properties of light and sound waves. In Life Science, students determine similarities between parents and their offspring and how organisms adapt to their environment. In Earth and Space Science, students continue to explore Earth's systems through observations of seasonal patterns as well as patterns in the day and night sky. The disciplinary core ideas of the Engineering, Technology, and Applications of Science (ETS) domain are integrated within the content standards of the three science domains and are denoted with an asterisk (*).

Grade 1 content standards provide students with opportunities for appropriate investigation and observation of the world around them. Through guided participation in specific engineering design projects, they find answers regarding how to use light or sound to communicate and how humans can imitate plant or animal parts for survival or protection.

Students will:

Waves and Their Applications in Technologies for Information Transfer

1. Conduct experiments to provide evidence that vibrations of matter can create sound (e.g., striking a tuning fork, plucking a guitar string) and sound can make matter vibrate (e.g., holding a piece of paper near a sound system speaker, touching your throat while speaking).
2. Construct explanations from observations that objects can be seen only when light is available to illuminate them (e.g., moon being illuminated by the sun, colors and patterns in a kaleidoscope being illuminated when held toward a light).
3. Investigate materials to determine which types allow light to pass through (e.g., transparent materials such as clear plastic wrap), allow only partial light to pass through (e.g., translucent materials such as wax paper), block light (e.g., opaque materials such as construction paper), or reflect light (e.g., shiny materials such as aluminum foil).
4. Design and construct a device that uses light or sound to send a communication signal over a distance (e.g., using a flashlight and a piece of cardboard to simulate a signal lamp for sending a coded message to a classmate, using a paper cup and string to simulate a telephone for talking to a classmate).*

From Molecules to Organisms: Structures and Processes

5. Design a solution to a human problem by using materials to imitate how plants and/or animals use their external parts to help them survive, grow, and meet their needs (e.g., outerwear imitating animal furs for insulation, gear mimicking tree bark or shells for protection).*
6. Obtain information to provide evidence that parents and their offspring engage in patterns of behavior that help the offspring survive (e.g., crying of offspring indicating need for feeding, quacking or barking by parents indicating protection of young).

Heredity: Inheritance and Variation of Traits

7. Make observations to identify the similarities and differences of offspring to their parents and to other members of the same species (e.g., flowers from the same kind of plant being the same shape, but differing in size; dog being same breed as parent, but differing in fur color or pattern).

Earth's Place in the Universe

8. Observe, describe, and predict patterns of the sun, moon, and stars as they appear in the sky (e.g., sun and moon appearing to rise in one part of the sky, move across the sky, and set; stars other than our sun being visible at night, but not during the day).
9. Observe seasonal patterns of sunrise and sunset to describe the relationship between the number of hours of daylight and the time of year (e.g., more hours of daylight during summer as compared to winter).

GRADE 2

Second-grade students begin the school year with prior knowledge and skills that enable them to formulate answers to questions as they expand their comprehension of the world around them. Through continued exploration, they develop an understanding of the observable properties of materials and apply this understanding to the acquisition of new information and the construction of new models.

Students in Grade 2 learn disciplinary core ideas from the three scientific domains of Physical, Life, and Earth and Space Sciences while demonstrating their learning in the context of the content standards for this grade level. In Physical Science, students explore the physical properties and structure of matter. In Life Science, students explore plant needs and interactions within their habitats. In Earth and Space Science, students observe and identify Earth's events and physical features. The disciplinary core ideas of the Engineering, Technology, and Applications of Science (ETS) domain are integrated within the content standards of the three scientific domains and are denoted with an asterisk (*).

Grade 2 content standards provide students with opportunities for appropriate exploration and observation of the world around them. Through guided participation in specific engineering design projects, they find answers regarding how properties of materials determine appropriate uses, how plants depend on animals for seed dispersal and pollination, and how to address changes caused by Earth events.

Students will:

Matter and Its Interactions

1. Conduct an investigation to describe and classify various substances according to physical properties (e.g., milk being a liquid, not clear in color, assuming shape of its container, mixing with water; mineral oil being a liquid, clear in color, taking shape of its container, floating in water; a brick being a solid, not clear in color, rough in texture, not taking the shape of its container, sinking in water).
2. Collect and evaluate data to determine appropriate uses of materials based on their properties (e.g., strength, flexibility, hardness, texture, absorbency).*
3. Demonstrate and explain how structures made from small pieces (e.g., linking cubes, blocks, building bricks, creative construction toys) can be disassembled and then rearranged to make new and different structures.
4. Provide evidence that some changes in matter caused by heating or cooling can be reversed (e.g., heating or freezing of water) and some changes are irreversible (e.g., baking a cake, boiling an egg).

Ecosystems: Interactions, Energy, and Dynamics

5. Plan and carry out an investigation, using one variable at a time (e.g., water, light, soil, air), to determine the growth needs of plants.
6. Design and construct models to simulate how animals disperse seeds or pollinate plants (e.g., animals brushing fur against seed pods and seeds falling off in other areas, birds and bees extracting nectar from flowers and transferring pollen from one plant to another).*
7. Obtain information from literature and other media to illustrate that there are many different kinds of living things and that they exist in different places on land and in water (e.g., woodland, tundra, desert, rainforest, ocean, river).

Earth's Systems

8. Make observations from media to obtain information about Earth's events that happen over a short period of time (e.g., tornados, volcanic explosions, earthquakes) or over a time period longer than one can observe (e.g., erosion of rocks, melting of glaciers).
9. Create models to identify physical features of Earth (e.g., mountains, valleys, plains, deserts, lakes, rivers, oceans).
10. Collect and evaluate data to identify water found on Earth and determine whether it is a solid or a liquid (e.g., glaciers as solid forms of water; oceans, lakes, rivers, streams as liquid forms of water).

Earth and Human Activity

11. Examine and test solutions that address changes caused by Earth's events (e.g., dams for minimizing flooding, plants for controlling erosion).*

GRADE 3

Grade 3 students are increasingly aware of their environment and have already discovered many patterns and processes in nature. Their capacity to process information is growing, making them eager to participate in scientific and engineering practices. Writing and mathematics skills are used when students communicate scientific information during varied instructional activities.

Students in Grade 3 learn disciplinary core ideas from the three scientific domains of Physical, Life, and Earth and Space Sciences while demonstrating their learning in the context of the content standards for this grade level. In Physical Science, students investigate, measure, and predict the motion of an object and test the cause-and-effect relationship of electric and magnetic interactions. In Life Science, students use evidence to interpret fossil data and construct explanations of an organism's ability to survive in different habitats. Students examine organisms' life cycles and traits and the influence of environment on these traits. In Earth and Space Science, students develop representations to describe weather and climate. The disciplinary core ideas of the Engineering, Technology, and Applications of Science (ETS) domain are integrated within the content standards of the three scientific domains and are denoted with an asterisk (*).

Grade 3 content standards provide students with opportunities for investigation, observation, and interpretation of a variety of scientific phenomena. Through participation in specific engineering design challenges, they find solutions regarding how to use magnets to solve a simple design problem, how to solve problems created by environmental changes, and how to reduce the impact of weather-related hazards.

Students will:

Motion and Stability: Forces and Interactions

1. Plan and carry out an experiment to determine the effects of balanced and unbalanced forces on the motion of an object using one variable at a time, including number, size, direction, speed, position, friction, or air resistance (e.g., balanced forces pushing from both sides on an object, such as a box, producing no motion; unbalanced force on one side of an object, such as a ball, producing motion), and communicate these findings graphically.
2. Investigate, measure, and communicate in a graphical format how an observed pattern of motion (e.g., a child swinging in a swing, a ball rolling back and forth in a bowl, two children teetering on a see-saw, a model vehicle rolling down a ramp of varying heights, a pendulum swinging) can be used to predict the future motion of an object.
3. Explore objects that can be manipulated in order to determine cause-and-effect relationships (e.g., distance between objects affecting strength of a force, orientation of magnets affecting direction of a magnetic force) of electric interactions between two objects not in contact with one another (e.g., force on hair from an electrically charged balloon, electrical forces between a charged rod and pieces of paper) or magnetic interactions between two objects not in contact with one another (e.g., force between two permanent magnets or between an electromagnet and steel paperclips, force exerted by one magnet versus the force exerted by two magnets).

4. Apply scientific ideas about magnets to solve a problem through an engineering design project (e.g., constructing a latch to keep a door shut, creating a device to keep two moving objects from touching each other such as a maglev system).*

From Molecules to Organisms: Structures and Processes

5. Obtain and combine information to describe that organisms are classified as living things, rather than nonliving things, based on their ability to obtain and use resources, grow, reproduce, and maintain stable internal conditions while living in a constantly changing external environment.
6. Create representations to explain the unique and diverse life cycles of organisms other than humans (e.g., flowering plants, frogs, butterflies), including commonalities such as birth, growth, reproduction, and death.

Heredity: Inheritance and Variation of Traits

7. Examine data to provide evidence that plants and animals, excluding humans, have traits inherited from parents and that variations of these traits exist in groups of similar organisms (e.g., flower colors in pea plants, fur color and pattern in animal offspring).
8. Engage in argument from evidence to justify that traits can be influenced by the environment (e.g., stunted growth in normally tall plants due to insufficient water, change in an arctic fox's fur color due to light and/or temperature, stunted growth of a normally large animal due to malnourishment).

Unity and Diversity

9. Analyze and interpret data from fossils (e.g., type, size, distribution) to provide evidence of organisms and the environments in which they lived long ago (e.g., marine fossils on dry land, tropical plant fossils in arctic areas, fossils of extinct organisms in any environment).
10. Investigate how variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing (e.g., plants having larger thorns being less likely to be eaten by predators, animals having better camouflage coloration being more likely to survive and bear offspring).
11. Construct an argument from evidence to explain the likelihood of an organism's ability to survive when compared to the resources in a certain habitat (e.g., freshwater organisms survive well, less well, or not at all in saltwater; desert organisms survive well, less well, or not at all in woodlands).
 - a. Construct explanations that forming groups helps some organisms survive.
 - b. Create models that illustrate how organisms and their habitats make up a system in which the parts depend on each other.
 - c. Categorize resources in various habitats as basic materials (e.g., sunlight, air, freshwater, soil), produced materials (e.g., food, fuel, shelter), or as nonmaterial (e.g., safety, instinct, nature-learned behaviors).

12. Evaluate engineered solutions to a problem created by environmental changes and any resulting impacts on the type and density of plant and animal populations living in the environment (e.g., replanting of sea oaks in coastal areas due to destruction by hurricanes, creating property development restrictions in vacation areas to reduce displacement and loss of native animal populations).*

Earth's Systems

13. Display data graphically and in tables to describe typical weather conditions expected during a particular season (e.g., average temperature, precipitation, wind direction).
14. Collect information from a variety of sources to describe climates in different regions of the world.

Earth and Human Activity

Evaluate a design solution (e.g., flood barriers, wind resistant roofs, lightning rods) that reduces the impact of a weather-related hazard.*

GRADE 4

Grade 4 students' view of the natural world includes many scientifically accurate components. They recognize the role of evidence in scientific thinking and are beginning to include evidence in their scientific explanations. Fourth graders enjoy an active learning environment with opportunities to manipulate physical materials and construct models.

Fourth-grade students learn disciplinary core ideas from the three scientific domains of Physical, Life, and Earth and Space Sciences while demonstrating their learning in the context of the content standards for this grade level. In Physical Science, students construct explanations based on evidence connecting the speed of an object to the energy of that object, including the transference of energy in its various forms. They obtain information about sources, uses, and environmental effects of renewable and nonrenewable energy resources. Additionally, fourth-grade students analyze wave patterns with observable wavelengths and amplitudes. In Life Science, students compare the internal and external structures of plants and animals, obtain and communicate information about human body systems, and investigate ways animals process information. In Earth and Space Science, Grade 4 students examine evidence to construct explanations for both slow and rapid changes on Earth's land features, describe patterns of Earth's land and water based on maps, and carry out investigations relating to erosion. The disciplinary core ideas of the Engineering, Technology, and Applications of Science (ETS) domain are integrated within the content standards of the three scientific domains and are denoted with an asterisk (*).

Grade 4 content standards provide students with opportunities for investigation, observation, and explanation of a variety of scientific phenomena. Through participation in specific engineering design projects, they find answers regarding which components of a device change energy from one form to another, how wave patterns can be used to transfer information, and how to limit the effects of harmful natural Earth processes on human life.

Students will:

Energy

1. Use evidence to explain the relationship of the speed of an object to the energy of that object.
2. Plan and carry out investigations that explain transference of energy from place to place by sound, light, heat, and electric currents.
 - a. Provide evidence that heat can be produced in many ways (e.g., rubbing hands together, burning leaves) and can move from one object to another by conduction.
 - b. Demonstrate that different objects can absorb, reflect, and/or conduct energy.
 - c. Demonstrate that electric circuits require a complete loop through which an electric current can pass.
3. Investigate to determine changes in energy resulting from increases or decreases in speed that occur when objects collide.

4. Design, construct, and test a device that changes energy from one form to another (e.g., electric circuits converting electrical energy into motion, light, or sound energy; a passive solar heater converting light energy into heat energy).*
5. Compile information to describe how the use of energy derived from natural renewable and nonrenewable resources affects the environment (e.g., constructing dams to harness energy from water, a renewable resource, while causing a loss of animal habitats; burning of fossil fuels, a nonrenewable resource, while causing an increase in air pollution; installing solar panels to harness energy from the sun, a renewable resource, while requiring specialized materials that necessitate mining).

Waves and Their Applications in Technologies for Information Transfer

6. Develop a model of waves to describe patterns in terms of amplitude and wavelength, and including that waves can cause objects to move.
7. Develop and use models to show multiple solutions in which patterns are used to transfer information (e.g., using a grid of 1s and 0s representing black and white to send information about a picture, using drums to send coded information through sound waves, using Morse code to send a message).*
8. Construct a model to explain that an object can be seen when light reflected from its surface enters the eyes.

From Molecules to Organisms: Structures and Processes

9. Examine evidence to support an argument that the internal and external structures of plants (e.g., thorns, leaves, stems, roots, colored petals, xylem, phloem) and animals (e.g., heart, stomach, lung, brain, skin) function to support survival, growth, behavior, and reproduction.
10. Obtain and communicate information explaining that humans have systems that interact with one another for digestion, respiration, circulation, excretion, movement, control, coordination, and protection from disease.
11. Investigate different ways animals receive information through the senses, process that information, and respond to it in different ways (e.g., skunks lifting tails and spraying an odor when threatened, dogs moving ears when reacting to sound, snakes coiling or striking when sensing vibrations).

Earth's Systems

12. Construct explanations by citing evidence found in patterns of rock formations and fossils in rock layers that Earth changes over time through both slow and rapid processes (e.g., rock layers containing shell fossils appearing above rock layers containing plant fossils and no shells indicating a change from land to water over time, a canyon with different rock layers in the walls and a river in the bottom indicating that over time a river cut through the rock).
13. Plan and carry out investigations to examine properties of soils and soil types (e.g., color, texture, capacity to retain water, ability to support growth of plants).
14. Explore information to support the claim that landforms are the result of a combination of constructive forces, including crustal deformation, volcanic eruptions, and sediment deposition as well as a result of destructive forces, including erosion and weathering.
15. Analyze and interpret data (e.g., angle of slope in downhill movement of water, volume of water flow, cycles of freezing and thawing of water, cycles of heating and cooling of water, speed of wind, relative rate of soil deposition, amount of vegetation) to determine effects of weathering and rate of erosion by water, ice, wind, and vegetation using one single form of weathering or erosion at a time.
16. Describe patterns of Earth's features on land and in the ocean using data from maps (e.g., topographic maps of Earth's land and ocean floor; maps of locations of mountains, continental boundaries, volcanoes, and earthquakes).
17. Formulate and evaluate solutions to limit the effects of natural Earth processes on humans (e.g., designing earthquake, tornado, or hurricane-resistant buildings; improving monitoring of volcanic activity).*

GRADE 5

Grade 5 students have developed many skills that enable them to conduct more refined measurements of data and communicate scientific information with greater detail through various forms of presentation. They are able to recognize the process needed for planning and carrying out investigations, relate numeric relationships to patterns discovered in data, and identify the role of design solutions to problems occurring in real life. Many fifth graders are emerging scientific thinkers. An encouraging and challenging learning environment can inspire fifth graders to develop a passion for science and engineering.

Fifth-grade students learn disciplinary core ideas from the three scientific domains of Physical, Life, and Earth and Space Sciences while demonstrating their learning in the context of the content standards for this grade level. In Physical Science, students classify matter based on its physical and chemical properties and carry out investigations to provide evidence of the principle of conservation of matter. In Life Science, they develop models to explain the flow of energy and matter in ecosystems, including classifying resources into living and nonliving and classifying organisms into producers, consumers, and decomposers. In Earth and Space Science, students use multiple ways to illustrate the distribution of water on Earth and the interaction of the atmosphere, biosphere, geosphere, and hydrosphere. Students obtain information about ways individuals and communities can protect Earth's resources and environment. Fifth graders find evidence of the gravitational force that pulls all objects downward, evaluate factors that cause some stars to shine more brightly than others, and construct explanations for the patterns of seasons, day and night, and the seasonal changes of stars visible in the sky. The disciplinary core ideas of the Engineering, Technology, and Applications of Science (ETS) domain are integrated within the content standards of the three scientific domains and are denoted with an asterisk (*).

Grade 5 content standards provide students with opportunities for investigation, observation, and explanation of a variety of scientific phenomena. Through participation in specific engineering design projects, students find answers regarding which methods can be used to clean a polluted environment and how to modify the speed of a falling object due to gravity.

Students will:

Matter and Its Interactions

1. Plan and carry out investigations (e.g., adding air to expand a basketball, compressing air in a syringe, dissolving sugar in water, evaporating salt water) to provide evidence that matter is made of particles too small to be seen.
2. Investigate matter to provide mathematical evidence, including graphs, to show that regardless of the type of reaction (e.g., new substance forming due to dissolving or mixing) or change (e.g., phase change) that occurs when heating, cooling, or mixing substances, the total weight of the matter is conserved.
3. Examine matter through observations and measurements to identify materials (e.g., powders, metals, minerals, liquids) based on their properties (e.g., color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, solubility, density).

- Investigate whether the mixing of two or more substances results in new substances (e.g., mixing of baking soda and vinegar resulting in the formation of a new substance, gas; mixing of sand and water resulting in no new substance being formed).
- Construct explanations from observations to determine how the density of an object affects whether the object sinks or floats when placed in a liquid.

Motion and Stability: Forces and Interactions

- Construct an explanation from evidence to illustrate that the gravitational force exerted by Earth on objects is directed downward towards the center of Earth.
- Design and conduct a test to modify the speed of a falling object due to gravity (e.g., constructing a parachute to keep an attached object from breaking).*

Ecosystems: Interactions, Energy, and Dynamics

- Defend the position that plants obtain materials needed for growth primarily from air and water.
- Construct an illustration to explain how plants use light energy to convert carbon dioxide and water into a storable fuel, carbohydrates, and a waste product, oxygen, during the process of photosynthesis.
- Construct and interpret models (e.g., diagrams, flow charts) to explain that energy in animals' food is used for body repair, growth, motion, and maintenance of body warmth and was once energy from the sun.
- Create a model to illustrate the transfer of matter among producers; consumers, including scavengers and decomposers; and the environment.

Earth's Place in the Universe

- Defend the claim that one factor determining the apparent brightness of the sun compared to other stars is the relative distance from Earth.
- Analyze data and represent with graphs to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky (e.g., shadows and the position and motion of Earth with respect to the sun, visibility of select stars only in particular months).

Earth's Systems

14. Use a model to represent how any two systems, specifically the atmosphere, biosphere, geosphere, and/or hydrosphere, interact and support life (e.g., influence of the ocean on ecosystems, landform shape, and climate; influence of the atmosphere on landforms and ecosystems through weather and climate; influence of mountain ranges on winds and clouds in the atmosphere).
15. Identify the distribution of freshwater and salt water on Earth (e.g., oceans, lakes, rivers, glaciers, ground water, polar ice caps) and construct a graphical representation depicting the amounts and percentages found in different reservoirs.

Earth and Human Activity

16. Collect and organize scientific ideas that individuals and communities can use to protect Earth's natural resources and its environment (e.g., terracing land to prevent soil erosion, utilizing no-till farming to improve soil fertility, regulating emissions from factories and automobiles to reduce air pollution, recycling to reduce overuse of landfill areas).
17. Design solutions, test, and revise a process for cleaning a polluted environment (e.g., simulating an oil spill in the ocean or a flood in a city and creating a solution for containment and/or cleanup).*

Grade 6

Earth and Space Science

Grade 6 students are energetic and curious. They are maturing at a rapid rate and are in a transitional stage characterized by physical, social, and cognitive changes. The sixth-grade classroom environment addresses these changes by providing a balance between elementary and middle school practices. While these changes lead students toward emotional and academic independence, sixth graders continue to need guidance. They also need an environment that both supports and challenges them as they become more responsible learners.

Content standards challenge students to discover their world, their planet, and Earth's place in the universe. Students are provided opportunities to learn important scientific facts and to build conceptual understanding of scientific principles, laws, and theories. Students must understand and communicate scientific concepts in order to be scientifically literate. Inquiry-based instruction allows them to develop critical-thinking skills and problem-solving abilities needed in the field of science.

Grade 6 content focuses on the disciplinary core ideas in the Earth and Space Science domain. The first Earth and Space Science core idea, Earth's Place in the Universe, describes the universe as a whole and addresses its grand scale in both space and time. The second core idea, Earth's Systems, encompasses the processes that drive Earth's conditions and its continual change over time. The third core idea, Earth and Human Activity, addresses society's interactions with the planet. Integrated within the Earth and Space Science content standards are the disciplinary core ideas of the Engineering, Technology, and Applications of Science (ETS) domain, which require students to employ tools and materials to solve problems and to use representations to convey various design solutions. ETS standards are denoted with an asterisk (*).

Students will:

Earth's Place in the Universe

1. Create and manipulate models (e.g., physical, graphical, conceptual) to explain the occurrences of day/night cycles, length of year, seasons, tides, eclipses, and lunar phases based on patterns of the observed motions of celestial bodies.
2. Construct models and use simulations (e.g., diagrams of the relationship between Earth and man-made satellites, rocket launch, International Space Station, elliptical orbits, black holes, life cycles of stars, orbital periods of objects within the solar system, astronomical units and light years) to explain the role of gravity in affecting the motions of celestial bodies (e.g., planets, moons, comets, asteroids, meteors) within galaxies and the solarsystem.
3. Develop and use models to determine scale properties of objects in the solar system (e.g., scale model representing sizes and distances of the sun, Earth, moon system based on a one-meter diameter sun).

Earth's Systems

4. Construct explanations from geologic evidence (e.g., change or extinction of particular living organisms; field evidence or representations, including models of geologic cross-sections; sedimentary layering) to identify patterns of Earth's major historical events (e.g., formation of mountain chains and ocean basins, significant volcanic eruptions, fossilization, folding, faulting, igneous intrusion, erosion).
5. Use evidence to explain how different geologic processes shape Earth's history over widely varying scales of space and time (e.g., chemical and physical erosion; tectonic plate processes; volcanic eruptions; meteor impacts; regional geographical features, including Alabama fault lines, Rickwood Caverns, and Wetumpka Impact Crater).
6. Provide evidence from data of the distribution of fossils and rocks, continental shapes, and seafloor structures to explain past plate motions.
7. Use models to construct explanations of the various biogeochemical cycles of Earth (e.g., water, carbon, nitrogen) and the flow of energy that drives these processes.
8. Plan and carry out investigations that demonstrate the chemical and physical processes that form rocks and cycle Earth's materials (e.g., processes of crystallization, heating and cooling, weathering, deformation, and sedimentation).
9. Use models to explain how the flow of Earth's internal energy drives a cycling of matter between Earth's surface and deep interior causing plate movements (e.g., mid-ocean ridges, ocean trenches, volcanoes, earthquakes, mountains, rift valleys, volcanic islands).
10. Use research-based evidence to propose a scientific explanation regarding how the distribution of Earth's resources such as minerals, fossil fuels, and groundwater are the result of ongoing geoscience processes (e.g., past volcanic and hydrothermal activity, burial of organic sediments, active weathering of rock).
11. Develop and use models of Earth's interior composition to illustrate the resulting magnetic field (e.g., magnetic poles) and to explain its measureable effects (e.g., protection from cosmic radiation).
12. Integrate qualitative scientific and technical information (e.g., weather maps; diagrams; other visualizations, including radar and computer simulations) to support the claim that motions and complex interactions of air masses result in changes in weather conditions.
 - a. Use various instruments (e.g., thermometers, barometers, anemometers, wet bulbs) to monitor local weather and examine weather patterns to predict various weather events, especially the impact of severe weather (e.g., fronts, hurricanes, tornados, blizzards, ice storms, droughts).

13. Use models (e.g., diagrams, maps, globes, digital representations) to explain how the rotation of Earth and unequal heating of its surface create patterns of atmospheric and oceanic circulation that determine regional climates.
 - a. Use experiments to investigate how energy from the sun is distributed between Earth's surface and its atmosphere by convection and radiation (e.g., warmer water in a pan rising as cooler water sinks, warming one's hands by a campfire).
14. Analyze and interpret data (e.g., tables, graphs, maps of global and regional temperatures; atmospheric levels of gases such as carbon dioxide and methane; rates of human activities) to describe how various human activities (e.g., use of fossil fuels, creation of urban heat islands, agricultural practices) and natural processes (e.g., solar radiation, greenhouse effect, volcanic activity) may cause changes in local and global temperatures over time.

Earth and Human Activity

15. Analyze evidence (e.g., databases on human populations, rates of consumption of food and other natural resources) to explain how changes in human population, per capita consumption of natural resources, and other human activities (e.g., land use, resource development, water and air pollution, urbanization) affect Earth's systems.
16. Implement scientific principles to design processes for monitoring and minimizing human impact on the environment (e.g., water usage, including withdrawal of water from streams and aquifers or construction of dams and levees; land usage, including urban development, agriculture, or removal of wetlands; pollution of air, water, and land).*

GRADE7

Life

Science

Seventh-grade students experience a wide range of physical and psychological changes during this stage of development where peer perception and social interactions play major roles in life and learning. As students mature and become more independent, their sense of curiosity and discovery must be fostered as they are encouraged to develop the self-discipline necessary for mastery of concepts at a higher level.

A variety of instructional strategies and techniques is essential for guiding students in Grade 7. Teachers must provide opportunities for students to communicate and interact with peers in a collaborative setting to develop explanations and design solutions to real-world problems using scientific concepts and processes. At this stage where learning progresses from concrete to abstract and from knowledge to applications in science, the method of cooperative learning provides an excellent strategy for instruction and a unique opportunity for teachers to capitalize on students' need for peer interaction.

Individual content standards are organized according to the disciplinary core ideas in the Life Science domain. The first Life Science core idea, From Molecules to Organisms: Structures and Processes, concentrates on the structure and function of cells and their connections to organs and organ systems. The second core idea, Ecosystems: Interactions, Energy, and Dynamics, investigates the interactions between living organisms and between biotic and abiotic factors. The third core idea, Heredity: Inheritance and Variation of Traits, centers on explaining genetic variations, describing the results of genetic mutations, and evaluating impacts of genetic technologies. The fourth core idea, Unity and Diversity, examines the patterns of change in populations of organisms over a long period of time and the relationship between natural selection and the reproduction and survival of a population. The Engineering, Technology, and Applications of Science (ETS) domain may be integrated within the Life Science content standards. The ETS domain requires students to use tools and materials to solve problems and to use representations to convey various design solutions.

Students will:

From Molecules to Organisms: Structures and Processes

1. Engage in argument from evidence to support claims of the cell theory.
2. Gather and synthesize information to explain how prokaryotic and eukaryotic cells differ in structure and function, including the methods of asexual and sexual reproduction.
3. Construct an explanation of the function (e.g., mitochondria releasing energy during cellular respiration) of specific cell structures (i.e., nucleus, cell membrane, cell wall, ribosomes, mitochondria, chloroplasts, and vacuoles) for maintaining a stable environment.
4. Construct models and representations of organ systems (e.g., circulatory, digestive, respiratory, muscular, skeletal, nervous) to demonstrate how multiple interacting organs and systems work together to accomplish specific functions.

Ecosystems: Interactions, Energy, and Dynamics

5. Examine the cycling of matter between abiotic and biotic parts of ecosystems to explain the flow of energy and the conservation of matter.
 - a. Obtain, evaluate, and communicate information about how food is broken down through chemical reactions to create new molecules that support growth and/or release energy as it moves through an organism.
 - b. Generate a scientific explanation based on evidence for the role of photosynthesis and cellular respiration in the cycling of matter and flow of energy into and out of organisms.
6. Analyze and interpret data to provide evidence regarding how resource availability impacts individual organisms as well as populations of organisms within an ecosystem.
7. Use empirical evidence from patterns and data to demonstrate how changes to physical or biological components of an ecosystem (e.g., deforestation, succession, drought, fire, disease, human activities, invasive species) can lead to shifts in populations.
8. Construct an explanation to predict patterns of interactions in different ecosystems in terms of the relationships between and among organisms (e.g., competition, predation, mutualism, commensalism, parasitism).
9. Engage in argument to defend the effectiveness of a design solution that maintains biodiversity and ecosystem services (e.g., using scientific, economic, and social considerations regarding purifying water, recycling nutrients, preventing soil erosion).
10. Use evidence and scientific reasoning to explain how characteristic animal behaviors (e.g., building nests to protect young from cold, herding to protect young from predators, attracting mates for breeding by producing special sounds and displaying colorful plumage, transferring pollen or seeds to create conditions for seed germination and growth) and specialized plant structures (e.g., flower brightness, nectar, and odor attracting birds that transfer pollen; hard outer shells on seeds providing protection prior to germination) affect the probability of successful reproduction of both animals and plants.
11. Analyze and interpret data to predict how environmental conditions (e.g., weather, availability of nutrients, location) and genetic factors (e.g., selective breeding of cattle or crops) influence the growth of organisms (e.g., drought decreasing plant growth, adequate supply of nutrients for maintaining normal plant growth, identical plant seeds growing at different rates in different weather conditions, fish growing larger in large ponds than in small ponds).

Heredity: Inheritance and Variation of Traits

12. Construct and use models (e.g., monohybrid crosses using Punnett squares, diagrams, simulations) to explain that genetic variations between parent and offspring (e.g., different alleles, mutations) occur as a result of genetic differences in randomly inherited genes located on chromosomes and that additional variations may arise from alteration of genetic information.
13. Construct an explanation from evidence to describe how genetic mutations result in harmful, beneficial, or neutral effects to the structure and function of an organism.

14. Gather and synthesize information regarding the impact of technologies (e.g., hand pollination, selective breeding, genetic engineering, genetic modification, gene therapy) on the inheritance and/or appearance of desired traits in organisms.

Unity and

Diversity

15. Analyze and interpret data for patterns of change in anatomical structures of organisms using the fossil record and the chronological order of fossil appearance in rock layers.
16. Construct an explanation based on evidence (e.g., cladogram, phylogenetic tree) for the anatomical similarities and differences among modern organisms and between modern and fossil organisms, including living fossils (e.g., alligator, horseshoe crab, nautilus, coelacanth).
17. Obtain and evaluate pictorial data to compare patterns in the embryological development across multiple species to identify relationships not evident in the adult anatomy.
18. Construct an explanation from evidence that natural selection acting over generations may lead to the predominance of certain traits that support successful survival and reproduction of a population and to the suppression of other traits.

GRADE 8

Physical Science

Students in eighth grade exhibit a wide range of learning styles and intellectual abilities. This diversity in development requires the implementation of a science curriculum that engages students in scientific inquiry. The classroom environment must provide opportunities for students to identify problems, ask questions, make observations, design solutions, and explore important scientific concepts through investigations. As students' curiosity and creativity flourish, teachers must design activities that encourage students to construct explanations based upon their own experiences and to use their creative abilities to devise solutions to real-world problems. Students engage in higher-level, abstract-thinking processes as they make connections between and among disciplines and become well-grounded in experiences. Students work in a variety of groups that foster collaboration among peers.

Grade 8 content standards are based upon the disciplinary core ideas in the Physical Science domain. The first core idea, Matter and Its Interactions, concentrates on the composition and properties of matter. The second core idea, Motion and Stability: Forces and Interactions, focuses on examining forces and predicting and developing explanations for changes in motion. The third core idea, Energy, involves the conservation of energy, energy transformations, and applications of energy to everyday life. The final core idea, Waves and Their Applications in Technologies for Information Transfer, examines types and properties of waves and the use of waves in communication devices. Integrated into the Physical Science content standards are the disciplinary core ideas of the Engineering, Technology, and Applications of Science (ETS) domain, which require students to employ tools and materials to solve problems and to use representations to convey various design solutions. ETS standards are denoted with an asterisk (*).

Students will:

Matter and Its Interactions

1. Analyze patterns within the periodic table to construct models (e.g., molecular-level models, including drawings; computer representations) that illustrate the structure, composition, and characteristics of atoms and molecules.
2. Plan and carry out investigations to generate evidence supporting the claim that one pure substance can be distinguished from another based on characteristic properties.
3. Construct explanations based on evidence from investigations to differentiate among compounds, mixtures, and solutions.
 - a. Collect and analyze information to illustrate how synthetic materials (e.g., medicine, food additives, alternative fuels, plastics) are derived from natural resources and how they impact society.
4. Design and conduct an experiment to determine changes in particle motion, temperature, and state of a pure substance when thermal energy is added to or removed from a system.
5. Observe and analyze characteristic properties of substances (e.g., odor, density, solubility, flammability, melting point, boiling point) before and after the substances combine to determine if a chemical reaction has occurred.
6. Create a model, diagram, or digital simulation to describe conservation of mass in a chemical reaction and explain the resulting differences between products and reactants.
7. Design, construct, and test a device (e.g., glow stick, hand warmer, hot or cold pack, thermal wrap) that either releases or absorbs thermal energy by chemical reactions (e.g., dissolving ammonium chloride or calcium chloride in water) and modify the device as needed based on criteria (e.g., amount/concentration, time, temperature).*

Motion and Stability: Forces and Interactions

8. Use Newton's first law to demonstrate and explain that an object is either at rest or moves at a constant velocity unless acted upon by an external force (e.g., model car on a table remaining at rest until pushed).
9. Use Newton's second law to demonstrate and explain how changes in an object's motion depend on the sum of the external forces on the object and the mass of the object (e.g., billiard balls moving when hit with a cue stick).
10. Use Newton's third law to design a model to demonstrate and explain the resulting motion of two colliding objects (e.g., two cars bumping into each other, a hammer hitting a nail).*
11. Plan and carry out investigations to evaluate how various factors (e.g., electric force produced between two charged objects at various positions; magnetic force produced by an electromagnet with varying number of wire turns, varying number or size of dry cells, and varying size of iron core) affect the strength of electric and magnetic forces.
12. Construct an argument from evidence explaining that fields exist between objects exerting forces on each other (e.g., interactions of magnets, electrically charged strips of tape,

electrically charged pith balls, gravitational pull of the moon creating tides) even when the objects are not in contact.

Energy

13. Create and analyze graphical displays of data to illustrate the relationships of kinetic energy to the mass and speed of an object (e.g., riding a bicycle at different speeds, hitting a table tennis ball versus a golf ball, rolling similar toy cars with different masses down an incline).
14. Use models to construct an explanation of how a system of objects may contain varying types and amounts of potential energy (e.g., observing the movement of a roller coaster cart at various inclines, changing the tension in a rubber band, varying the number of batteries connected in a series, observing a balloon with static electrical charge being brought closer to a classmate's hair).
15. Analyze and interpret data from experiments to determine how various factors affect energy transfer as measured by temperature (e.g., comparing final water temperatures after different masses of ice melt in the same volume of water with the same initial temperature, observing the temperature change of samples of different materials with the same mass and the same material with different masses when adding a specific amount of energy).
16. Apply the law of conservation of energy to develop arguments supporting the claim that when the kinetic energy of an object changes, energy is transferred to or from the object (e.g., bowling ball hitting pins, brakes being applied to a car).

Waves and Their Applications in Technologies for Information Transfer

17. Create and manipulate a model of a simple wave to predict and describe the relationships between wave properties (e.g., frequency, amplitude, wavelength) and energy. a. Analyze and interpret data to illustrate an electromagnetic spectrum.
18. Use models to demonstrate how light and sound waves differ in how they are absorbed, reflected, and transmitted through different types of media.
19. Integrate qualitative information to explain that common communication devices (e.g., cellular telephones, radios, remote controls, Wi-Fi components, global positioning systems [GPS], wireless technology components) use electromagnetic waves to encode and transmit information.


KINDERGARTEN

Living and Working Together in Family and Community

Kindergarten students are introduced to the world beyond family and home. As students become acquainted with new classmates, they develop sensitivity to the similarities and differences among individuals in the classroom as well as within the school and community. Comparing family traditions enables students to accept and appreciate diversity and gain a sense of purpose regarding their role and the role of others within the community.

The kindergarten curriculum contains balanced, comprehensive content that facilitates students' understanding of economics, geography, history, and civics and government. An appropriate learning environment is one that reflects a thematic and interdisciplinary approach emphasizing instructional flexibility, multiple individual learning styles, and opportunities for student exploration and discovery. Concrete examples of abstract concepts help young students develop skills for critical thinking, inquiry, and an understanding of citizenship in a democratic society. Examples for instruction may include assisting in determining classroom rules, taking turns while playing games, and standing while pledging allegiance to the flag. As students gain insight into these and other concepts, they are able to view themselves as effective citizens of a culturally diverse democratic society.


Students will:

E	G	H	CG
			

1. Sequence events using schedules, calendars, and timelines.


Examples: daily classroom activities, significant events in students' lives

- Differentiating among broad categories of historical time
Examples: long ago, yesterday, today, tomorrow

E	G	H	CG
			

2. Identify rights and responsibilities of citizens within the family, classroom, school, and community.


Examples: taking care of personal belongings and respecting the property of others, following rules and recognizing consequences of breaking rules, taking responsibility for assigned duties

E	G	H	CG
			


3. Describe how rules provide order, security, and safety in the home, school, and community.

- Constructing classroom rules and procedures
- Determining consequences for not following classroom rules and procedures

4. Differentiate between needs and wants of family, school, and community.
- Comparing wants among different families, schools, and communities

E	G	H	CG
			

5. Differentiate between goods and services.
- Examples: goods—food, toys, clothing
services—medical care, fire protection,
law enforcement, library resources


E	G	H	CG
			

6. Compare cultural similarities and differences in individuals, families, and communities.

Examples: celebrations, food, traditions

E	G	H	CG
			

7. Describe roles of helpers and leaders, including school principal, school custodian, volunteers, police officers, and fire and rescue workers.

E	G	H	CG
			

8. Recognize maps, globes, and satellite images.

E	G	H	CG
			

9. Differentiate between land forms and bodies of water on maps and globes.

E	G	H	CG
			

10. Apply vocabulary related to giving and following directions.

Example: locating objects and places to the *right* or *left*, *up* or *down*,
in or *out*, *above* or *below*

E	G	H	CG
			




11. Identify symbols, customs, famous individuals, and celebrations representative of our state and nation.

Examples: symbols—United States flag, Alabama flag, bald eagle
customs—pledging allegiance to the United States flag,
singing “The Star – Spangled Banner” individuals—
George Washington; Abraham Lincoln;
Squanto; Martin Luther King, Jr. celebrations—Fourth of
July, Memorial Day,
Veterans Day

E	G	H	CG
			

12. Describe families and communities of the past, including jobs, education, transportation, communication, and recreation.

- Identifying ways everyday life has both changed and remained the same

E	G	H	CG
			

FIRST GRADE

Living and Working Together in Community and State



The goal of the first-grade curriculum is to help students acquire knowledge regarding their place in the local community and in the state. First graders gain a deeper sense of the role of effective citizenry in a democratic society as they develop an awareness of their basic rights and responsibilities as citizens, including the laws designed to protect them. Students continue to develop a sense of time and place as they increase their understanding of the past, present, and future through the use of real-life examples. They develop an understanding of historical events within the community and state by comparing life today to life long ago.

As students study concepts in economics, geography, history, and civics and government, they learn about people in different times and places. Extensive use of literature promotes students' understanding of cultures, traditions, and societal groups within the community and state. A thematic approach to instruction includes active, hands-on participation through activities that include opportunities for exploration and discovery. Activities designed for diverse learning styles allow students to understand the relationships among people, places, and events of the community and the state, thus making lessons meaningful to their lives.

Students will:

E	G	H	CG
			


1. Construct daily schedules, calendars, and timelines.
 - Using vocabulary associated with time, including *past*, *present*, and *future*

E	G	H	CG
			

2. Identify rights and responsibilities of citizens within the local community and state.
 - Describing how rules in the community and laws in the state protect citizens' rights and property
 - Describing ways, including paying taxes, responsible citizens contribute to the common good of the community and state
 - Demonstrating voting as a way of making choices and decisions

E	G	H	CG
			

3. Recognize leaders and their roles in the local community and state.
 - Describing roles of public officials, including mayor and governor
 - Identifying on a map Montgomery as the capital of the state of Alabama

E	G	H	CG
			

4. Identify contributions of diverse significant figures that influenced the local community and state in the past and present.



Example: Admiral Raphael Semmes' and Emma Sansom's roles during the Civil War

E	G	H	CG
			

5. Identify historical events and celebrations within the local community and throughout Alabama.

Examples: Selma Bridge Crossing Jubilee, Mardi Gras, Boll Weevil Festival, Montgomery Bus Boycott, Black History Month

- Differentiating between fact and fiction when sharing stories or retelling events using primary and secondary sources
Example: fictional version of Pocahontas compared to an authentic historical account

E	G	H	CG
			

6. Compare ways individuals and groups in the local community and state lived in the past to how they live today.

- Identifying past and present forms of communication
Examples: past—letter, radio, rotary-dial telephone present—e-mail, television, cellular telephone
- Identifying past and present types of apparel
- Identifying past and present types of technology
Examples: past—record player, typewriter, wood-burning stove present—compact diskette (CD) and digital video diskette (DVD) players, video cassette recorder (VCR), computer, microwave oven
- Identifying past and present types of recreation
Examples: past—marbles, hopscotch, jump rope present—video games, computer games
- Identifying past and present primary sources
Examples: past—letters, newspapers present—e-mail, Internet articles

E	G	H	CG
			

7. Describe how occupational and recreational opportunities in the local community and state are affected by the physical environment.

Examples: occupational—commercial fishing and tourism in Gulf coast areas
recreational—camping and hiking in mountain areas, fishing and waterskiing in lake areas

E	G	H	CG
			

8. Identify land masses, bodies of water, and other physical features on maps and globes.


- Explaining the use of cardinal directions and the compass rose
- Measuring distance using nonstandard units
Example: measuring with pencils, strings, hands, feet
- Using vocabulary associated with geographical features, including *river, lake, ocean, and mountain*

E	G	H	CG
			

9. Differentiate between natural resources and human-made products.

- Listing ways to protect our natural resources

Examples: conserving forests by recycling newspapers, conserving energy by turning off lights, promoting protection of resources by participating in activities such as Earth Day and Arbor Day

E	G	H	CG
			

10. Describe the role of money in everyday life.

- Categorizing purchases families make as needs or wants
- Explaining the concepts of saving and borrowing
- Identifying differences between buyers and sellers
- Classifying specialized jobs of workers with regard to the production of goods and services
- Using vocabulary associated with the function of money, including *barter*, *trade*, *spend*, and *save*

E	G	H	CG
			

11. Identify traditions and contributions of various cultures in the local community and state. 

Examples: Kwanzaa, Christmas, Hanukkah, Fourth of July, Cinco de Mayo

E	G	H	CG
			

12. Compare common and unique characteristics in societal groups, including age, religious beliefs, ethnicity, persons with disabilities, and equality between genders.



SECOND GRADE

Living and Working Together in State and Nation



The goal of the second-grade curriculum is to introduce students to major historical events, figures, and symbols related to the principles of American democracy. Young students learn to value differences among people and exemplify a respect for the rights and opinions of others. They develop an appreciation of shared values, principles, and beliefs that promote stability for our country's government and its citizens. Through a thematic approach to instruction, second-grade students acquire knowledge as they study various cultures, places, and environments.

Content standards for second grade address the disciplines of economics, geography, history, and civics and government. Students benefit from engagement in factual accounts of history, including artifacts related to these histories. Hands-on instruction that relates content to students' lives provides familiarity and allows students to retain and build on newly presented materials. Students gain a deeper understanding of content through independent and cooperative learning, project-based learning, and through the examination of primary and secondary sources.

Students will:

E	G	H	CG
			

1. Relate principles of American democracy to the founding of the nation.
 - Identifying reasons for the settlement of the thirteen colonies
 - Recognizing basic principles of the Declaration of Independence, the Constitution of the United States, the establishment of the three branches of government, and the Emancipation Proclamation
 - Demonstrating the voting process, including roles of major political parties
 - Utilizing school and classroom rules to reinforce democratic values

E	G	H	CG
			

2. Identify national historical figures and celebrations that exemplify fundamental democratic values, including equality, justice, and responsibility for the common good.
 - Recognizing our country's founding fathers, including George Washington, Thomas Jefferson, Benjamin Franklin, Patrick Henry, John Adams, John Hancock, and James Madison
 - Recognizing historical female figures, including Abigail Adams, Dolley Madison, Harriet Tubman, and Harriet Beecher Stowe
 - Describing the significance of national holidays, including the birthday of Martin Luther King, Jr.; Presidents' Day; Memorial Day; the Fourth of July; Veterans Day; and Thanksgiving Day
 - Describing the history of American symbols and monuments
Examples: Liberty Bell, Statue of Liberty, bald eagle, United States flag, Washington Monument, Lincoln Memorial

E	G	H	CG
			

3. Use various primary sources, including calendars and timelines, for reconstructing the past.

Examples: historical letters, stories, interviews with elders, photographs, maps, artifacts

E	G	H	CG
			

4. Use vocabulary to describe segments of time, including *year*, *decade*, *score*, and *century*.

E	G	H	CG
			


5. Differentiate between a physical map and a political map. Examples:
 physical—illustrating rivers and mountains political—
 illustrating symbols for states and capitals

- Using vocabulary associated with geographical features, including *latitude*, *longitude*, and *border*

E	G	H	CG
			

6. Identify states, continents, oceans, and the equator using maps, globes, and technology.


- Identifying map elements, including title, legend, compass rose, and scale
- Identifying the intermediate directions of northeast, southeast, northwest, and southwest
- Recognizing technological resources such as a virtual globe, satellite images, and radar
- Locating points on a grid

E	G	H	CG
			

7. Explain production and distribution processes.

Example: tracing milk supply from dairy to consumer

- Identifying examples of imported and exported goods
- Describing the impact of consumer choices and decisions on supply and demand

E	G	H	CG
			

8. Describe how scarcity affects supply and demand of natural resources and human-made products.

Examples: cost of gasoline during oil shortages, price and expiration date of perishable foods

E	G	H	CG
			

9. Describe how and why people from various cultures immigrate to the United States.

Examples: how—ships, planes, automobiles why—
 improved quality of life, family
 connections, disasters

- Describing the importance of cultural unity and diversity within and across groups

E	G	H	CG
			

10. Identify ways people throughout the country are affected by their human and physical environments.

Examples: land use, housing, occupation

- Comparing physical features of regions throughout the United States
Example: differences in a desert environment, a tropical rain forest, and a polar region
- Identifying positive and negative ways people affect the environment
Examples: positive—restocking fish in lakes, reforesting cleared land
negative—polluting water, littering roadways, eroding soil
- Recognizing benefits of recreation and tourism at state and national parks

E	G	H	CG
			

11. Interpret legends, stories, and songs that contributed to the development of the cultural history of the United States.

Examples: American Indian legends, African-American stories, tall tales, stories of folk heroes

THIRD – FOURTH GRADE OVERVIEW

Students in Grades 3 and 4 continue to be naturally curious and eager to learn. They express interest in the unfamiliar and are developmentally ready to study geographic skills and concepts, a major focus of third-grade content. Students begin to develop an understanding of how the environment affects its inhabitants and how people change the land. In fourth grade, students enjoy hearing stories of Alabama’s past and are ready to be introduced to their first formal chronological study of history. As they develop an appreciation for people, places, and events that shaped the history of Alabama, they expand their understanding of historical concepts and gain an understanding of their relationship to cultures locally, nationally, and internationally.

The four strands of economics, geography, history, and civics and government are woven throughout the third- and fourth-grade curricula. Through the study of geography in third grade and Alabama history in fourth grade, students develop a better understanding of where they live. As they become active participants in their schools and communities, they begin to view themselves as future leaders with civic responsibilities. Students compare their own economic experiences to those of others to aid in understanding local, national, and international concepts. Through a variety of learning experiences, including the use of technology for exploration and investigation, students gain an increased level of interest and involvement in their world as they prepare to become competent, responsible citizens who lead productive and independent lives.

THIRD GRADE



Geographical and Historical Studies: People, Places, and Regions

During third grade, teachers capitalize upon students' natural curiosity and their interest in the unfamiliar as geographic information is introduced regarding areas of the United States as well as the world. Students in Grade 3 learn from concrete experiences and benefit from resources such as pictures, graphs, maps, globes, and information technology that help make abstractions more concrete. Instruction of this nature plays a dual role in helping students learn not only to use these geographic tools, but also to learn in real and interesting ways about other people, places, and cultures.


This year-long study focuses on skills necessary for students to organize information about people, places, and environments in a spatial context. Although all four content strands are interwoven into instruction, the greatest emphasis is placed on the geography strand. Content expands upon geographic knowledge acquired by students from kindergarten through second grade to help students establish a firm geographic foundation to build upon throughout life.

Students will:

E	G	H	CG
			

1. Locate the prime meridian, equator, Tropic of Capricorn, Tropic of Cancer, International Date Line, and lines of latitude and longitude on maps and globes.
 - Using cardinal and intermediate directions to locate on a map or globe an area in Alabama or the world 
 - Using coordinates to locate points on a grid
 - Determining distance between places on a map using a scale
 - Locating physical and cultural regions using labels, symbols, and legends on an Alabama or world map 
 - Describing the use of geospatial technologies
Examples: Global Positioning System (GPS), geographic information system (GIS)
 - Interpreting information on thematic maps
Examples: population, vegetation, climate, growing season, irrigation
 - Using vocabulary associated with maps and globes, including *megalopolis*, *landlocked*, *border*, and *elevation*

E	G	H	CG
			

2. Locate the continents on a map or globe.
 - Using vocabulary associated with geographical features of Earth, including *hill*, *plateau*, *valley*, *peninsula*, *island*, *isthmus*, *ice cap*, and *glacier*
 - Locating major mountain ranges, oceans, rivers, and lakes throughout the world 

E	G	H	CG
			

3. Describe ways the environment is affected by humans in Alabama and the world.

Examples: crop rotation, oil spills, landfills, clearing of forests, replacement of cleared lands, restocking of fish in waterways

- Using vocabulary associated with human influence on the environment, including *irrigation, aeration, urbanization, reforestation, erosion, and migration*

E	G	H	CG
			

4. Relate population dispersion to geographic, economic, and historic changes in Alabama and the world.

Examples: geographic—flood, hurricane, tsunami
economic—crop failure historic—
disease, war, migration

- Identifying human and physical criteria used to define regions and boundaries

Examples: human—city boundaries, school district lines
physical—hemispheres, regions within continents or countries

E	G	H	CG
			

5. Compare trading patterns between countries and regions.

- Differentiating between producers and consumers
 - Differentiating between imports and exports
- Examples: imports—coffee, crude oil
exports—corn, wheat, automobiles

E	G	H	CG
			

6. Identify conflicts within and between geographic areas involving use of land, economic competition for scarce resources, opposing political views, boundary disputes, and cultural differences.

- Identifying examples of cooperation among governmental agencies within and between different geographic areas
Examples: American Red Cross, Federal Emergency Management Agency (FEMA), World Health Organization (WHO)
- Locating areas of political conflict on maps and globes
- Explaining the role of the United Nations (UN) and the United States in resolving conflict within and between geographic areas

E	G	H	CG
			

7. Describe the relationship between locations of resources and patterns of population distribution.

Examples: presence of trees for building homes, availability of natural gas supply for heating, availability of water supply for drinking and for irrigating crops

- Locating major natural resources and deposits throughout the world on topographical maps

- Comparing present-day mechanization of labor with the historical use of human labor for harvesting natural resources
Example: present-day practices of using machinery versus human labor to mine coal and harvest cotton and pecans
- Explaining the geographic impact of using petroleum, coal, nuclear power, and solar power as major energy sources in the twenty-first century

E	G	H	CG

8. Identify geographic links of land regions, river systems, and interstate highways between Alabama and other states.

Examples: Appalachian Mountains, Tennessee-Tombigbee Waterway, Interstate Highway 65 (I-65), Natchez Trace Parkway

- Locating the five geographic regions of Alabama
- Locating state and national parks on a map or globe

E	G	H	CG

9. Identify ways to prepare for natural disasters.

Examples: constructing houses on stilts in flood-prone areas, buying earthquake and flood insurance, providing hurricane or tornado shelters, establishing emergency evacuation routes

E	G	H	CG

10. Recognize functions of the Declaration of Independence and the Constitution of the United States.

- Describing the process by which a bill becomes law
- Explaining the relationship between the federal government and state governments, including the three branches of government
- Defining governmental systems, including democracy, monarchy, and dictatorship

E	G	H	CG

11. Interpret various primary sources for reconstructing the past, including documents, letters, diaries, maps, and photographs.

- Comparing maps of the past to maps of the present

E	G	H	CG

12. Explain the significance of representations of American values and beliefs, including the Statue of Liberty, the statue of Lady Justice, the United States flag, and the national anthem.

E	G	H	CG

13. Describe prehistoric and historic American Indian cultures, governments, and economics in Alabama.

Examples: prehistoric—Paleo-Indian, Archaic, Woodland, Mississippian
historic—Choctaw, Chickasaw, Cherokee, Creek

- Identifying roles of archaeologists and paleontologists

FOURTH GRADE

Fourth-grade students apply geographic concepts obtained in Grade 3 to a study of their own state and relate geography to history, economics, and politics in Alabama. They examine ways economic and political institutions respond to the needs of Alabamians. Students gain knowledge of economic principles and technological advancements as well as knowledge of past events and present-day practices in the state. They learn specific characteristics regarding the land and its people and analyze diverse groups that contributed to the development of Alabama, beginning with early American Indians in Alabama and continuing to the present.

Fourth-graders' enthusiasm for classifying and organizing information may be used for obtaining knowledge about geographic regions in Alabama. Students investigate Alabama's role in the Civil War, civil rights efforts, and the structure of state and local governments. They compare similarities between contemporary issues and their historical origins and draw parallels among historical events in Alabama, other states, and the world.

Students will:

E	G	H	CG
			

1. Compare historical and current economic, political, and geographic information about Alabama on thematic maps, including weather and climate, physical-relief, waterway, transportation, political, economic development, land-use, and population maps.
 - Describing types of migrations as they affect the environment, agriculture, economic development, and population changes in Alabama

E	G	H	CG
			

2. Relate reasons for European exploration and settlement in Alabama to the impact of European explorers on trade, health, and land expansion in Alabama.
 - Locating on maps European settlements in early Alabama, including Fort Condé, Fort Toulouse, and Fort Mims
 - Tracing on maps and globes, the routes of early explorers of the New World, including Juan Ponce de León, Hernando de Soto, and Vasco Núñez de Balboa
 - Explaining reasons for conflicts between Europeans and American Indians in Alabama from 1519 to 1840, including differing beliefs regarding land ownership, religion, and culture

E	G	H	CG
			

3. Explain the social, political, and economic impact of the War of 1812, including battles and significant leaders of the Creek War, on Alabama.

Examples: social—adoption of European culture by American Indians, opening of Alabama land for settlement
 political—forced relocation of American Indians, labeling of Andrew Jackson as a hero and propelling him toward Presidency
 economic—acquisition of tribal land in Alabama by the United States

- Explaining the impact of the Trail of Tears on Alabama American Indians’ lives, rights, and territories

E	G	H	CG
			

4. Relate the relationship of the five geographic regions of Alabama to the movement of Alabama settlers during the early nineteenth century.

- Identifying natural resources of Alabama during the early nineteenth century
- Describing human environments of Alabama as they relate to settlement during the early nineteenth century, including housing, roads, and place names

E	G	H	CG
			

5. Describe Alabama’s entry into statehood and establishment of its three branches of government and the constitutions.

- Explaining political and geographic reasons for changes in location of Alabama’s state capital
- Recognizing roles of prominent political leaders during early statehood in Alabama, including William Wyatt Bibb, Thomas Bibb, Israel Pickens, William Rufus King, and John W. Walker

E	G	H	CG
			

6. Describe cultural, economic, and political aspects of the lifestyles of early nineteenth-century farmers, plantation owners, slaves, and townspeople.

Examples: cultural—housing, education, religion, recreation
 economic—transportation, means of support
 political—inequity of legal codes

- Describing major areas of agricultural production in Alabama, including the Black Belt and fertile river valleys

E	G	H	CG
			

7. Explain reasons for Alabama’s secession from the Union, including sectionalism, slavery, states’ rights, and economic disagreements.

- Identifying Alabama’s role in the organization of the Confederacy, including hosting the secession convention and the inauguration ceremony for leaders
- Recognizing Montgomery as the first capital of the Confederacy
- Interpreting the Articles of the Confederation and the Gettysburg Address

E	G	H	CG
			

8. Explain Alabama’s economic and military role during the Civil War.

Examples: economic—production of iron products, munitions, textiles, and ships

military—provision of military supplies through the Port of Mobile, provision of an armament center at Selma

- Recognizing military leaders from Alabama during the Civil War
- Comparing roles of women on the home front and the battlefield during and after the Civil War
- Explaining economic conditions as a result of the Civil War, including the collapse of the economic structure, destruction of the transportation infrastructure, and high casualty rates

E	G	H	CG
			

9. Analyze political and economic issues facing Alabama during Reconstruction for their impact on various social groups.

Examples: political—military rule, presence of Freedmen’s Bureau, Alabama’s readmittance to the Union
economic—sharecropping, tenant farming, scarcity of goods and money

- Interpreting the Thirteenth, Fourteenth, and Fifteenth Amendments to the Constitution of the United States
- Identifying African Americans who had an impact on Alabama during Reconstruction in Alabama
- Identifying major political parties in Alabama during Reconstruction

E	G	H	CG
			

10. Analyze social and educational changes during the late nineteenth and early twentieth centuries for their impact on Alabama.

Examples: social—implementation of the *Plessey versus Ferguson* “separate but not equal” court decision, birth of the National Association for the Advancement of Colored People (NAACP)
educational—establishment of normal schools and land-grant colleges such as Huntsville Normal School (Alabama Agricultural and Mechanical [A&M] University), Agricultural and Mechanical College of Alabama (Auburn University), Tuskegee Normal and Industrial Institute (Tuskegee University), Lincoln Normal School (Alabama State University)

- Explaining the development and changing role of industry, trade, and agriculture in Alabama during the late nineteenth and early twentieth centuries, including the rise of Populism
- Explaining the Jim Crow laws
- Identifying Alabamians who made contributions in the fields of science, education, the arts, politics, and business during the late nineteenth and early twentieth centuries

E	G	H	CG
			

11. Describe the impact of World War I on Alabamians, including the migration of African Americans from Alabama to the North and West, utilization of Alabama’s military installations and training facilities, and increased production of goods for the war effort.

- Recognizing Alabama participants in World War I, including Alabama’s 167th Regiment of the Rainbow Division
- Identifying World War I technologies, including airplanes, machine guns, and chemical warfare

E	G	H	CG
			

12. Explain the impact the 1920s and Great Depression had on different socioeconomic groups in Alabama.

Examples: 1920s—increase in availability of electricity, employment opportunities, wages, products, consumption of goods and services; overproduction of goods; stock market crash
Great Depression—overcropping of land, unemployment, poverty, establishment of new federal programs

- Explaining how supply and demand impacted economies of Alabama and the United States during the 1920s and the Great Depression

E	G	H	CG
			

13. Describe the economic and social impact of World War II on Alabamians, including entry of women into the workforce, increase in job opportunities, rationing, utilization of Alabama’s military installations, military recruitment, the draft, and a rise in racial consciousness.

- Recognizing Alabama participants in World War II, including the Tuskegee Airmen and women in the military
- Justifying the strategic placement of military bases in Alabama, including Redstone Arsenal, Fort Rucker, Fort McClellan, and Craig Air Force Base

E	G	H	CG
			

14. Analyze the modern Civil Rights Movement to determine the social, political, and economic impact on Alabama.

- Recognizing important persons of the modern Civil Rights Movement, including Martin Luther King, Jr.; George C. Wallace; Rosa Parks; Fred Shuttlesworth; John Lewis; Malcolm X; Thurgood Marshall; Hugo Black; and Ralph David Abernathy
- Describing events of the modern Civil Rights Movement, including the Montgomery Bus Boycott, the Sixteenth Street Baptist Church bombing in Birmingham, the Freedom Riders bus bombing, and the Selma-to-Montgomery March
- Explaining benefits of the Civil Rights Act of 1964, the Voting Rights Act of 1965, and *Brown versus Board of Education* Supreme Court case of 1954
- Using vocabulary associated with the modern Civil Rights Movement, including *discrimination, prejudice, segregation, integration, suffrage, and rights*

E	G	H	CG
			

15. Identify major world events that influenced Alabama since 1950, including the Korean Conflict, the Cold War, the Vietnam War, the Persian Gulf War, and the War on Terrorism.

E	G	H	CG
			

16. Determine the impact of population growth on cities, major road systems, demographics, natural resources, and the natural environment of Alabama during the late twentieth and early twenty-first centuries.

- Describing how technological advancements brought change to Alabamians, including the telephone; refrigerator; automobile; television; and wireless, Internet, and space technologies
- Relating Alabama's economy to the influence of foreign-based industry, including the automobile industry

FIFTH – SIXTH GRADE OVERVIEW

Students in fifth and sixth grades are interested in ways different groups of people developed and in cultures represented in American society. Students begin to examine and question the nature of culture and its influence on human belief systems. While not yet skilled in abstract reasoning, fifth and sixth graders are beginning to formulate more focused questions about the world around them. This curiosity can be utilized to help them identify important concepts and ideas embedded in the history of the United States.

Effective instruction is critical in guiding students to reach their full potential in understanding and applying economic concepts, patterns of historical change and continuity, and the use of land. Fifth- and sixth-grade content standards require students to examine and explain interactions between states and nations and their cultural complexities. These learners are able to think about themselves as persons in civic roles as they grow in the recognition of their rights and responsibilities as citizens.

The main focus of the social studies program in Grades 5 and 6 is a study of the chronological development of the United States through a two-year sequence as recommended by the National Council for the Social Studies. Through an integrated approach that includes economic, geographic, historical, political, social, and cultural perspectives, content in these grades emphasizes roles various groups played in the development of American society. The key concepts of chronology, change, conflict, complexity, and increased globalization are addressed to show connections among the strands of economics, geography, history, and civics and government.

Effective teachers utilize a variety of instructional strategies and assessment tools to address various learning styles. They consistently incorporate best practices into instruction, introduce and make use of primary sources integral to the teaching of history, and utilize current technology on a regular basis in classroom instruction. Rather than providing all the answers, innovative teachers help students develop critical-thinking skills by encouraging them to evaluate their own opinions as well as those of others. In addition, effective teachers recognize the strong need for a sense of belonging exhibited by this age group and therefore provide cooperative learning experiences where students develop a sense of personal identity as well as a sense of responsibility to the group.

FIFTH GRADE

United States Studies: Beginnings to the Industrial Revolution


Fifth-grade content standards focus on the United States from the prehistoric period to the Industrial Revolution. Instruction addresses the strands of economics, geography, history, and civics and government from the earliest times through the formation and growth of the nation to the latter part of the nineteenth century with an emphasis on the development of the American Republic. Students also become familiar with major events in the periods of the American Revolution, the Westward Expansion, the Civil War, and Reconstruction.

Students at the fifth-grade level are becoming more aware of both their immediate and global environments. Due to the emotional and social development of fifth-grade students, this is the optimal time to assist in their understanding of history by involving them in discussions that include differing viewpoints and opinions of others. As students begin to explore multiple ideas and perceptions, they become more respectful of others' viewpoints and actions.

Fifth-grade students benefit from a positive classroom environment that provides learning activities designed to optimize growth and achievement, including lessons that integrate a variety of appropriate and effective instructional strategies from hands-on activities to inquiry-based learning. By developing and monitoring goals for their own learning and behavior, fifth graders are able to gain a greater sense of responsibility for their own actions, including how these actions may affect fellow classmates.

Students will:

E	G	H	CG
			

1. Locate on a map physical features that impacted the exploration and settlement of the Americas, including ocean currents, prevailing winds, large forests, major rivers, and significant mountain ranges.
 - Locating on a map states and capitals east of the Mississippi River
 - Identifying natural harbors in North America
Examples: Mobile, Boston, New York, New Orleans, Savannah 

E	G	H	CG
			

2. Identify causes and effects of early migration and settlement of North America.

E	G	H	CG
			

3. Distinguish differences among major American Indian cultures in North America according to geographic region, natural resources, community organization, economy, and belief systems.
 - Locating on a map American Indian nations according to geographic region

E	G	H	CG
			

4. Determine the economic and cultural impact of European exploration during the Age of Discovery upon European society and American Indians.

- Identifying significant early European patrons, explorers, and their countries of origin, including early settlements in the New World Examples: patrons—King Ferdinand and Queen Isabella explorers—Christopher Columbus early settlements—St. Augustine, Quebec, Jamestown
- Tracing the development and impact of the Columbian Exchange

E	G	H	CG
			



5. Explain the early colonization of North America and reasons for settlement in the Northern, Middle, and Southern colonies, including geographic features, landforms, and differences in climate among the colonies.

- Recognizing how colonial development was influenced by the desire for religious freedom
Example: development in Massachusetts, Connecticut, Rhode Island, Pennsylvania, and Maryland colonies
- Identifying influential leaders in colonial society
- Describing emerging colonial government
Examples: Mayflower Compact, representative government, town meetings, rule of law

E	G	H	CG
			

6. Describe colonial economic life and labor systems in the Americas.

- Recognizing centers of slave trade in the Western Hemisphere and the establishment of the Triangular Trade Route

E	G	H	CG
			

7. Determine causes and events leading to the American Revolution, including the French and Indian War, the Stamp Act, the Intolerable Acts, the Boston Massacre, and the Boston Tea Party.

E	G	H	CG
			

8. Identify major events of the American Revolution, including the battles of Lexington and Concord, Bunker Hill, Saratoga, and Yorktown.

- Describing principles contained in the Declaration of Independence
- Explaining contributions of Thomas Jefferson, Samuel Adams, Paul Revere, Patrick Henry, Thomas Paine, George Washington, Haym Solomon, and supporters from other countries to the American Revolution
- Explaining contributions of ordinary citizens, including African Americans and women, to the American Revolution
- Describing efforts to mobilize support for the American Revolution by the Minutemen, Committees of Correspondence, First Continental Congress, Sons of Liberty, boycotts, and the Second Continental Congress

- Locating on a map major battle sites of the American Revolution, including the battles of Lexington and Concord, Bunker Hill, Saratoga, and Yorktown
- Recognizing reasons for colonial victory in the American Revolution
- Explaining the effect of the Treaty of Paris of 1783 on the development of the United States

E	G	H	CG
			

9. Explain how inadequacies of the Articles of Confederation led to the creation and eventual ratification of the Constitution of the United States.

- Describing major ideas, concepts, and limitations of the Constitution of the United States, including duties and powers of the three branches of government
- Identifying factions in favor of and opposed to ratification of the Constitution of the United States
Example: Federalist and Anti-Federalist factions
- Identifying main principles in the Bill of Rights
- Analyzing the election of George Washington as President of the United States for its impact on the role of president in a republic

E	G	H	CG
			

10. Describe political, social, and economic events between 1803 and 1860 that led to the expansion of the territory of the United States, including the War of 1812, the Indian Removal Act, the Texas-Mexican War, the Mexican-American War, and the Gold Rush of 1849.

- Analyzing the role of the Louisiana Purchase and explorations of Meriwether Lewis and William Clark for their impact on Westward Expansion
- Explaining the purpose of the Monroe Doctrine
- Identifying Alabama’s role in the expansion movement in the United States, including the Battle of Horseshoe Bend and the Trail of Tears
- Identifying the impact of technological developments on United States’ expansion
Examples: steamboat, steam locomotive, telegraph, barbed wire

E	G	H	CG
			

11. Identify causes of the Civil War, including states’ rights and the issue of slavery.

- Describing the importance of the Missouri Compromise, Nat Turner’s insurrection, the Compromise of 1850, the Dred Scott decision, John Brown’s rebellion, and the election of 1860
- Recognizing key Northern and Southern personalities, including Abraham Lincoln, Jefferson Davis, Ulysses S. Grant, Robert E. Lee, Thomas Jonathan “Stonewall” Jackson, William Tecumseh Sherman, and Joseph Wheeler
- Describing social, economic, and political conditions that affected citizens during the Civil War
- Identifying Alabama’s role in the Civil War
Examples: Montgomery as the first capital of the Confederacy, Winston County’s opposition to Alabama’s secession

- Locating on a map sites important to the Civil War Examples: Mason-Dixon Line, Fort Sumter, Appomattox, Gettysburg, Confederate states, Union states
- Explaining events that led to the conclusion of the Civil War

E	G	H	CG
			

12. Summarize successes and failures of the Reconstruction Era.
- Evaluating the extension of citizenship rights to African Americans included in the Thirteenth, Fourteenth, and Fifteenth Amendments to the Constitution of the United States
 - Analyzing the impact of Reconstruction for its effect on education and social institutions in the United States
Examples: Horace Mann and education reform, Freedmen's Bureau, establishment of segregated schools, African-American churches
 - Explaining the black codes and the Jim Crow laws
 - Describing post-Civil War land distribution, including tenant farming and sharecropping

E	G	H	CG
			

13. Describe social and economic influences on United States' expansion prior to World War I.
- Explaining how the development of transcontinental railroads helped the United States achieve its Manifest Destiny
 - Locating on a map states, capitals, and important geographic features west of the Mississippi River
 - Explaining how the United States acquired Alaska and Hawaii
 - Identifying major groups and individuals involved with the Westward Expansion, including farmers, ranchers, Jewish merchants, Mormons, and Hispanics
 - Analyzing the impact of closing the frontier on American Indians' way of life
 - Explaining how the Spanish-American War led to the emergence of the United States as a world power

SIXTH GRADE

United States Studies: The Industrial Revolution to the Present

Sixth-grade content standards focus on the history of the United States from the Industrial Revolution to the present. Historical events studied by sixth graders include the rise of the United States as an industrial nation, World War I, the Great Depression, World War II, and the Cold War Era. Furthermore, the economic, political, social, and technological issues and developments from post-World War II to the present are explored. Emphasis is placed on economic, geographic, historic, and civic and governmental changes that have influenced every aspect of life during these events, including communication and technological advances, reorganization of national boundaries, and the movement of the United States into the role of world leader.

Sixth-grade students are interested in acquiring a deeper understanding of cultures and political opinions that differ from their own. Students at this age benefit from a positive learning environment that challenges and encourages their efforts and progress. As they enter into a transitional stage characterized by physical, cognitive, and social changes, they begin to analyze and evaluate relationships between ideas and practices. Sixth-grade instruction should provide constant opportunities for students to explore prior knowledge and opinions. Teachers should maximize and expand students' knowledge through the use of integral tools, including cooperative learning, large- and small-group discussions, hands-on activities, current technology, and the use of primary sources.

Students will:

E	G	H	CG
			

1. Explain the impact of industrialization, urbanization, communication, and cultural changes on life in the United States from the late nineteenth century to World War I.

E	G	H	CG
			

2. Describe reform movements and changing social conditions during the Progressive Era in the United States.
 - Relating countries of origin and experiences of new immigrants to life in the United States
Example: Ellis Island and Angel Island experiences
 - Identifying workplace reforms, including the eight-hour workday, child labor laws, and workers' compensation laws
 - Identifying political reforms of Progressive movement leaders, including Theodore Roosevelt and the establishment of the national park system
 - Identifying social reforms of the Progressive movement, including efforts by Jane Adams, Clara Barton, and Julia Tutwiler
 - Recognizing goals of the early civil rights movement and the purpose of the National Association for the Advancement of Colored People (NAACP)
 - Explaining Progressive movement provisions of the Sixteenth, Seventeenth, Eighteenth, Nineteenth, and Twenty-first Amendments to the Constitution of the United States

E	G	H	CG
			

3. Identify causes and consequences of World War I and reasons for the United States' entry into the war.

Examples: sinking of the *Lusitania*, Zimmerman Note, alliances, militarism, imperialism, nationalism


- Describing military and civilian roles in the United States during World War I
- Explaining roles of important persons associated with World War I, including Woodrow Wilson and Archduke Franz Ferdinand
- Analyzing technological advances of the World War I era for their impact on modern warfare

Examples: machine gun, tank, submarine, airplane, poisonous gas, gas mask

- Locating on a map major countries involved in World War I and boundary changes after the war
- Explaining the intensification of isolationism in the United States after World War I

Example: reaction of the Congress of the United States to the Treaty of Versailles, League of Nations, and Red Scare

- Recognizing the strategic placement of military bases in Alabama

E	G	H	CG
			

4. Identify cultural and economic developments in the United States from 1900 through the 1930s.

- Describing the impact of various writers, musicians, and artists on American culture during the Harlem Renaissance and the Jazz Age Examples: Langston Hughes, Louis Armstrong, Ernest Hemingway, F. Scott Fitzgerald, Andrew Wyeth, Frederic Remington, W. C. Handy, Erskine Hawkins, George Gershwin, Zora Neale Hurston

- Identifying contributions of turn-of-the-century inventors Examples: George Washington Carver, Henry Ford, Alexander Graham Bell, Thomas Alva Edison, Wilbur and Orville Wright

- Describing the emergence of the modern woman during the early 1900s

Examples: Amelia Earhart, Zelda Fitzgerald, Helen Keller, Susan B. Anthony, Margaret Washington, suffragettes, suffragists, flappers

- Identifying notable persons of the early 1900s

Examples: Babe Ruth, Charles A. Lindbergh, W. E. B. Du Bois, John T. Scopes

- Comparing results of the economic policies of the Warren G. Harding, Calvin Coolidge, and Herbert Hoover Administrations Examples: higher wages, increase in consumer goods, collapse of farm economy, extension of personal credit, stock market crash, Immigration Act of 1924

E	G	H	CG
			

5. Explain causes and effects of the Great Depression on the people of the United States.

Examples: economic failure, loss of farms, rising unemployment, building of Hoovervilles

- Identifying patterns of migration during the Great Depression
- Locating on a map the area of the United States known as the Dust Bowl
- Describing the importance of the election of Franklin D. Roosevelt as President of the United States, including the New Deal alphabet agencies
- Locating on a map the river systems utilized by the Tennessee Valley Authority (TVA)

E	G	H	CG
			

6. Identify causes and consequences of World War II and reasons for the United States' entry into the war.

- Locating on a map Allied countries and Axis Powers
- Locating on a map key engagements of World War II, including Pearl Harbor; the battles of Normandy, Stalingrad, and Midway; and the Battle of the Bulge
- Identifying key figures of World War II, including Franklin D. Roosevelt, Sir Winston Churchill, Harry S. Truman, Joseph Stalin, Adolf Hitler, Benito Mussolini, Michinomiya Hirohito, and Hideki Tōjō
- Describing the development of and the decision to use the atomic bomb
- Describing human costs associated with World War II
Examples: the Holocaust, civilian and military casualties
- Explaining the importance of the surrender of the Axis Powers ending World War II

E	G	H	CG
			

7. Identify changes on the American home front during World War II.

Example: rationing

- Recognizing the retooling of factories from consumer to military production
- Identifying new roles of women and African Americans in the workforce
- Describing increased demand on the Birmingham steel industry and Port of Mobile facilities
- Describing the experience of African Americans and Japanese Americans in the United States during World War II, including the Tuskegee Airmen and occupants of internment camps 🏠

E	G	H	CG
			

8. Describe how the United States' role in the Cold War influenced domestic and international events.

- Describing the origin and meaning of the Iron Curtain and communism
- Recognizing how the Cold War conflict manifested itself through sports
 - Examples: Olympic Games, international chess tournaments, Ping-Pong diplomacy
- Identifying strategic diplomatic initiatives that intensified the Cold War, including the policies of Harry S. Truman, Dwight D. Eisenhower, and John F. Kennedy
 - Examples: trade embargoes, Marshall Plan, arms race, Berlin blockade and airlift, Berlin Wall, mutually assured destruction, North Atlantic Treaty Organization (NATO), Warsaw Pact, Cuban missile crisis, Bay of Pigs invasion
- Identifying how Cold War tensions resulted in armed conflict
 - Examples: Korean Conflict, Vietnam War, proxy wars
 - Describing the impact of the Cold War on technological innovations
 - Examples: Sputnik; space race; weapons of mass destruction; accessibility of microwave ovens, calculators, and computers
- Recognizing Alabama's role in the Cold War
 - Examples: rocket production at Redstone Arsenal, helicopter training at Fort Rucker
- Assessing effects of the end of the Cold War Era
 - Examples: policies of Mikhail Gorbachev; collapse of the Soviet Union; Ronald W. Reagan's foreign policies, including the Strategic Defense Initiative (SDI or Star Wars)

E	G	H	CG
			

9. Critique major social and cultural changes in the United States since World War II.

- Identifying key persons and events of the modern Civil Rights Movement
 - Examples: persons—Martin Luther King Jr.; Rosa Parks; Fred Shuttlesworth; John Lewis events—*Brown versus Board of Education*, Montgomery Bus Boycott, student protests, Freedom Rides, Selma-to-Montgomery Voting Rights March, political assassinations
- Describing the changing role of women in United States' society and how it affected the family unit
 - Examples: women in the workplace, latchkey children


- Recognizing the impact of music genres and artists on United States' culture since World War II
Examples: genres—protest songs; Motown, rock and roll, rap, folk, and country music
artists—Elvis Presley, the Beatles, Bob Dylan, Aretha Franklin, Hank Williams
- Identifying the impact of media, including newspapers, AM and FM radio, television, twenty-four hour sports and news programming, talk radio, and Internet social networking, on United States' culture since World War II

E	G	H	CG
			

10. Analyze changing economic priorities and cycles of economic expansion and contraction for their impact on society since World War II.

Examples: shift from manufacturing to service economy, higher standard of living, globalization, outsourcing, insourcing, “boom and bust,” economic bubbles

- Identifying policies and programs that had an economic impact on society since World War II
Examples: Servicemen’s Readjustment Act of 1944 (G. I. Bill of Rights), Medicare and Medicaid, Head Start programs, space exploration, Children’s Health Insurance Program (CHIP), environmental protection issues
- Analyzing consequences of immigration for their impact on national and Alabama economies since World War II 📄

E	G	H	CG
			

11. Identify technological advancements on society in the United States since World War II.

Examples: 1950s—fashion doll, audio cassette
1960s—action figure, artificial heart, Internet, calculator
1970s—word processor, video game, cellular telephone
1980s—personal computer, Doppler radar, digital cellular telephone
1990s—World Wide Web, digital video diskette (DVD)
2000s—digital music player, social networking technology, personal Global Positioning System (GPS) device

E	G	H	CG
			

12. Evaluate significant political issues and policies of presidential administrations since World War II.

- Identifying domestic policies that shaped the United States since World War II
 Examples: desegregation of the military, Interstate Highway System, federal funding for education, Great Society, affirmative action, Americans with Disabilities Act, welfare reform, Patriot Act, No Child Left Behind Act
- Recognizing domestic issues that shaped the United States since World War II
 Examples: McCarthyism, Watergate scandal, political assassinations, health care, impeachment, Hurricane Katrina
- Identifying issues of foreign affairs that shaped the United States since World War II
 Examples: Vietnam Conflict, Richard Nixon's China initiative, Jimmy Carter's human rights initiative, emergence of China and India as economic powers
- Explaining how conflict in the Middle East impacted life in the United States since World War II
 Examples: oil embargoes; Iranian hostage situation; Camp David Accords; Persian Gulf Wars; 1993 World Trade Center bombing; terrorist attacks on September 11, 2001; War on Terrorism; homeland security
- Recognizing the election of Barack Obama as the culmination of a movement in the United States to realize equal opportunity for all Americans
- Identifying the 2008 presidential election as a watershed in the use of new technology and mass participation in the electoral process

SEVENTH – EIGHTH GRADE OVERVIEW

In seventh grade, geography and civics are each taught as a one-semester course. In the one-semester seventh-grade geography course, students study world geography using a thematic approach. They focus on Earth as the subject matter that involves people, places, and environments and learn that geography seeks meaning in spatial patterns and processes that involve asking questions regarding where and why. Teachers select particular continents, countries, and regions to provide the geographic framework for classroom instruction and investigation.

The one-semester seventh-grade civics course addresses content regarding democracy; liberty; law; personal economics; and local, state, and national civic responsibility. This course provides students with information about how society works, including the role students play in the community and in the world.

The geographic knowledge of the world gained in Grade 7 helps eighth-grade students as they begin their study of world history. Students benefit by knowing where things are, how they got that way, and how the study of history applies to ways in which geography affected historical events. Course content incorporates the strands of economics, geography, history, and civics and government with an emphasis on the history and geography strands.

These courses emphasize the knowledge and skills necessary for developing a geographic perspective of the world and its people and events. Geography is a strong component of the content for these grades, as students are required to become knowledgeable about the spatial aspects of human existence. Students use geographic knowledge, tools, and technologies to pose and answer questions about spatial processes and to compare human and physical patterns on Earth. Real maps and mental maps are also utilized by students to answer geographic questions.

Effective teachers incorporate a variety of instructional techniques and assessment strategies into plans for student learning. The classroom environment, activities, assignments, and assessments foster the skills of acquiring information and manipulating data; developing and presenting policies, arguments, and stories; constructing new knowledge; and participating in groups. Technology, including Internet access, computer software, videos, and television programs, is used not only to provide opportunities for students to explore historical as well as geographic concepts, but also to enable students to compete in a rapidly changing world. Because understanding contemporary events and relating them to the past are essential to any social studies course, the incorporation of current events is a vital component of the social studies content for Grades 7 and 8.

SEVENTH GRADE

Geography

Geography is a diverse field of study that describes and examines spatial patterns of physical and human phenomena across Earth’s surface and the processes that created them. Geography provides a spatial perspective that enables students to answer questions about the world around them, including why things are located where they are. In this one-semester geography course, students increase their knowledge about the physical and human nature of the world and about relationships between people and their environments. Interwoven throughout the course are the three interrelated components of geography. These components include Earth as a physical object, a physical environment, and a place in which humans live; geographic skills; and spatial and ecological perspectives. Students also study geography in the context of economics, civics and politics, history, and culture. Content standards follow a thematic approach based on the essential elements of the National Geographic Society’s *Geography for Life: National Geography Standards*, which includes the world in spatial terms, places and regions, physical systems, human systems, environment and society, and uses of geography.

The classroom instructional environment should provide students with numerous opportunities to participate in learning activities that incorporate a variety of formats and learning tools, including role-playing, debate, and hands-on activities as well as the use of maps, globes, satellite images, and skills to interpret graphic organizers, text, charts, and graphs. Students should have multiple opportunities for listening, reading, and writing activities as well as group and individual projects. Culminating projects ensure that students apply geographic knowledge and skills to understand local, national, and international issues.

Students will:

E	G	H	CG
			

1. Describe the world in spatial terms using maps and other geographic representations, tools, and technologies.
 - Explaining the use of map essentials, including type, projections, scale, legend, distance, direction, grid, and symbols
Examples: type—reference, thematic, planimetric, topographic, globe and map projections, aerial photographs, satellite images
distance—fractional, graphic, and verbal scales
direction—lines of latitude and longitude, cardinal and intermediate directions
 - Identifying geospatial technologies to acquire, process, and report information from a spatial perspective
Examples: Google Earth, Global Positioning System (GPS), geographic information system (GIS), satellite-remote sensing, aerial photography
 - Utilizing maps to explain relationships and environments among people and places, including trade patterns, governmental alliances, and immigration patterns

- Applying mental maps to answer geographic questions, including how experiences and cultures influence perceptions and decisions
- Categorizing the geographic organization of people, places, and environments using spatial models
 - Examples: urban land-use patterns, distribution and linkages of cities, migration patterns, population-density patterns, spread of culture traits, spread of contagious diseases through a population

E	G	H	CG
			

2. Determine how regions are used to describe the organization of Earth's surface.
- Identifying physical and human features used as criteria for mapping formal, functional, and perceptual regions
 - Examples: physical—landforms, climates, bodies of water, resources
 - human—language, religion, culture, economy, government
 - Interpreting processes and reasons for regional change, including land use, urban growth, population, natural disasters, and trade
 - Analyzing interactions among regions to show transnational relationships, including the flow of commodities and Internet connectivity
 - Examples: winter produce to Alabama from Chile and California, poultry from Alabama to other countries
 - Comparing how culture and experience influence individual perceptions of places and regions
 - Examples: cultural influences—language, religion, ethnicity, iconography, symbology, stereotypes
 - Explaining globalization and its impact on people in all regions of the world
 - Examples: quality and sustainability of life, international cooperation

E	G	H	CG
			

3. Compare geographic patterns in the environment that result from processes within the atmosphere, biosphere, lithosphere, and hydrosphere of Earth's physical systems.
- Comparing Earth-Sun relationships regarding seasons, fall hurricanes, monsoon rainfalls, and tornadoes
 - Explaining processes that shape the physical environment, including long-range effects of extreme weather phenomena
 - Examples: processes—plate tectonics, glaciers, ocean and atmospheric circulation, El Niño
 - long-range effects—erosion on agriculture, typhoons on coastal ecosystems
 - Describing characteristics and physical processes that influence the spatial distribution of ecosystems and biomes on Earth's surface

- Comparing how ecosystems vary from place to place and overtime
Examples: place to place—differences in soil, climate, and topography
over time—alteration or destruction of natural habitats due to effects of floods and forest fires, reduction of species diversity due to loss of natural habitats, reduction of wetlands due to replacement by farms, reduction of forest and farmland due to replacement by housing developments, reduction of previously cleared land due to reforestation efforts
- Comparing geographic issues in different regions that result from human and natural processes
Examples: human—increase or decrease in population, land-use change in tropical forests natural—hurricanes, tsunamis, tornadoes, floods

E	G	H	CG
			

4. Evaluate spatial patterns and the demographic structure of population on Earth's surface in terms of density, dispersion, growth and mortality rates, natural increase, and doubling time.

Examples: spatial patterns—major population clusters demographic structure—age and sex distribution using population pyramids

- Predicting reasons and consequences of migration, including push and pull factors
Examples: push—politics, war, famine
pull—potential jobs, family

E	G	H	CG
			

5. Explain how cultural features, traits, and diffusion help define regions, including religious structures, agricultural patterns, ethnic enclaves, ethnic restaurants, and the spread of Islam.

E	G	H	CG
			

6. Illustrate how primary, secondary, and tertiary economic activities have specific functions and spatial patterns.

Examples: primary—forestry, agriculture, mining secondary—manufacturing furniture, grinding coffee beans, assembling automobiles
tertiary—selling furniture, selling caffè latte, selling automobiles

- Comparing one location to another for production of goods and services
Examples: fast food restaurants in highly accessible locations, medical offices near hospitals, legal offices near courthouses, industries near major transportation routes

- Analyzing the impact of economic interdependence and globalization on places and their populations
Examples: seed corn produced in Iowa and planted in South America, silicon chips manufactured in California and installed in a computer made in China that is purchased in Australia
- Explaining why countries enter into global trade agreements, including the North American Free Trade Agreement (NAFTA), the Dominican Republic-Central America Free Trade Agreement (DR-CAFTA), the European Union (EU), the Mercado Común del Sur (MERCOSUR), and the Association of Southeast Asian Nations (ASEAN)

E	G	H	CG
			

7. Classify spatial patterns of settlement in different regions of the world, including types and sizes of settlement patterns.

Examples: types—linear, clustered, grid

sizes—large urban, small urban, and rural areas

- Explaining human activities that resulted in the development of settlements at particular locations due to trade, political importance, or natural resources
Examples: Timbuktu near caravan routes; Pittsburgh, Pennsylvania, and Birmingham, Alabama, as manufacturing centers near coal and iron ore deposits; Singapore near a major ocean transportation corridor
- Describing settlement patterns in association with the location of resources
Examples: fall line settlements near waterfalls used as a source of energy for mills, European industrial settlements near coal seams, spatial arrangement of towns and cities in North American Corn Belt settlements
- Describing ways in which urban areas interact and influence surrounding regions
Examples: daily commuters from nearby regions; communication centers that service nearby and distant locations through television, radio, newspapers, and the Internet; regional specialization in services or production

E	G	H	CG
			

8. Determine political, military, cultural, and economic forces that contribute to cooperation and conflict among people.

- Identifying political boundaries based on physical and human systems
Examples: physical—rivers as boundaries between counties human—streets as boundaries between local government units
- Identifying effects of cooperation among countries in controlling territories
Examples: Great Lakes environmental management by United States and Canada, United Nations (UN) Heritage sites and host countries, Antarctic Treaty on scientific research
- Describing the eruption of territorial conflicts over borders, resources, land use, and ethnic and nationalistic identity
Examples: India and Pakistan conflict over Jammu and Kashmir, the West Bank, the Sudan, Somalia piracy, ocean fishing and mineral rights, local land-use disputes

E	G	H	CG
			

9. Explain how human actions modify the physical environment within and between places, including how human-induced changes affect the environment.

- Examples: within—construction of dams and downstream water availability for human consumption, agriculture, and aquatic ecosystems
between—urban heat islands and global climate change, desertification and land degradation, pollution and ozone depletion

E	G	H	CG
			

10. Explain how human systems develop in response to physical environmental conditions.

- Example: farming practices in different regions, including slash-and-burn agriculture, terrace farming, and center-pivot irrigation
- Identifying types, locations, and characteristics of natural hazards, including earthquakes, hurricanes, tornadoes, and mudslides
 - Differentiating ways people prepare for and respond to natural hazards, including building storm shelters, conducting fire and tornado drills, and establishing building codes for construction

E	G	H	CG
			

11. Explain the cultural concept of natural resources and changes in spatial distribution, quantity, and quality through time and by location.
- Evaluating various cultural viewpoints regarding the use or value of natural resources
Examples: salt and gold as valued commodities, petroleum product use and the invention of the internal combustion engine
 - Identifying issues regarding depletion of nonrenewable resources and the sustainability of renewable resources
Examples: ocean shelf and Arctic exploration for petroleum, hybrid engines in cars, wind-powered generators, solar collection panels

E	G	H	CG
			

12. Explain ways geographic features and environmental issues have influenced historical events.
- Examples: geographic features—fall line, Cumberland Gap, Westward Expansion in the United States, weather conditions at Valley Forge and the outcome of the American Revolution, role of ocean currents and winds during exploration by Christopher Columbus
- environmental issues—boundary disputes, ownership of ocean resources, revitalization of downtown areas

SEVENTH GRADE

Civics

The goal of education in civics and government is informed, responsible participation in political life by competent citizens committed to the fundamental values and principles of the constitutional democracy that established the republic of the United States of America. These standards incorporate the strands of economics, geography, history, and civics and government with an obvious emphasis on political ideology. They address representative democracy, individual rights and freedoms, law, personal finance, and civic responsibilities.

Students at this age should be able to assume more responsibilities in their family, school, and community roles. To address this concern, students are given opportunities to apply civic knowledge to problem-based learning situations in the community and to other activities that foster increased personal responsibility.

The classroom instructional environment should provide students with numerous opportunities to participate in learning activities that incorporate a variety of formats and learning tools, including role playing, debate, and hands-on activities as well as the use of graphic organizers, texts, charts, and graphs. Students should have multiple opportunities for listening, reading, and writing activities as well as group and individual projects. Culminating projects ensure that students apply their civic knowledge and skills to understand local, national, and international issues.

Students will:

E	G	H	CG
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1. Compare influences of ancient Greece, the Roman Republic, the Judeo-Christian tradition, the Magna Carta, federalism, the Mayflower Compact, the English Bill of Rights, the House of Burgesses, and the Petition of Rights on the government of the United States.

E	G	H	CG
		((

2. Explain essential characteristics of the political system of the United States, including the organization and function of political parties and the process of selecting political leaders.
 - Describing the influence of John Locke, Thomas Hobbes, Jean-Jacques Rousseau, Thomas Paine, Niccolò Machiavelli, Charles de Montesquieu, and François-Marie Arouet (Voltaire) on the political system of the United States

E	G	H	CG
		((

3. Compare the government of the United States with other governmental systems, including monarchy, limited monarchy, oligarchy, dictatorship, theocracy, and pure democracy.

E	G	H	CG
			

4. Describe structures of state and local governments in the United States, including major Alabama offices and officeholders.

- Describing how local and state governments are funded

E	G	H	CG
			

5. Compare duties and functions of members of the legislative, executive, and judicial branches of Alabama's local and state governments and of the national government.

- Locating political and geographic districts of the legislative, executive, and judicial branches of Alabama's local and state governments and of the national government
- Describing the organization and jurisdiction of courts at the local, state, and national levels within the judicial system of the United States.
- Explaining concepts of separation of powers and checks and balances among the three branches of state and national governments

E	G	H	CG
			

6. Explain the importance of juvenile, adult, civil, and criminal laws within the judicial system of the United States.

- Explaining rights of citizens as guaranteed by the Bill of Rights under the Constitution of the United States
- Explaining what is meant by the term *rule of law*
- Justifying consequences of committing a civil or criminal offense
- Contrasting juvenile and adult laws at local, state, and federal levels

E	G	H	CG
			

7. Determine how people organize economic systems to address basic economic questions regarding which goods and services will be produced, how they will be distributed, and who will consume them.

- Using economic concepts to explain historical and current developments and issues in global, national, state, or local contexts



Example: increase in oil prices resulting from supply and demand



- Analyzing agriculture, tourism, and urban growth in Alabama for their impact on economic development



E	G	H	CG
			

8. Appraise the relationship between the consumer and the marketplace in the economy of the United States regarding scarcity, opportunity cost, trade-off decision making, and the stock market.

- Describing effects of government policies on the free market
- Identifying laws protecting rights of consumers and avenues of recourse when those rights are violated
- Comparing economic systems, including market, command, and traditional

E	G	H	CG
			

9. Apply principles of money management to the preparation of a personal budget that addresses housing, transportation, food, clothing, medical expenses, insurance, checking and savings accounts, loans, investments, credit, and comparison shopping.

E	G	H	CG
			

10. Describe individual and civic responsibilities of citizens of the United States.

Examples: individual—respect for rights of others, self-discipline, negotiation, compromise, fiscal responsibility
 civic—respect for law, patriotism, participation in political process, fiscal responsibility

- Differentiating rights, privileges, duties, and responsibilities between citizens and noncitizens
- Explaining how United States' citizenship is acquired by immigrants
- Explaining character traits that are beneficial to individuals and society

Examples: honesty, courage, compassion, civility, loyalty

E	G	H	CG
			

11. Compare changes in social and economic conditions in the United States during the twentieth and twenty-first centuries.


Examples: social—family values, peer pressure, education opportunities, women in the workplace
 economic—career opportunities, disposable income, consumption of goods and services

- Determining benefits of Alabama's role in world trade
- Tracing the political and social impact of the modern Civil Rights Movement from 1954 to the present, including Alabama's role

E	G	H	CG
			

12. Describe how the United States can be improved by individual and group participation in civic and community activities.

- Identifying options for civic and community action
 Examples: investigating the feasibility of a specific solution to a traffic problem, developing a plan for construction of a subdivision, using maps to make and justify decisions about best locations for public facilities
- Determining ways to participate in the political process
 Examples: voting, running for office, serving on a jury, writing letters, being involved in political parties and political campaigns

E	G	H	CG
			

13. Identify contemporary American issues since 2001, including the establishment of the United States Department of Homeland Security, the enactment of the Patriot Act of 2001, and the impact of media analysis.

EIGHTH GRADE

World History to 1500

Students in the eighth grade can be described as curious and independent learners, discovering who they are and determining their place in the world. As they begin to assert independence from adults and become more reliant on peers, they continue to need a great amount of guidance. Through instruction that includes various media and first-hand experiences, students become more aware of events on a global scale and learn how these events affect them.

The study of world history in Grade 8 addresses the time period from prehistoric man to the 1500s. Content standards for this grade incorporate the strands of economics, geography, history, and political science, with an emphasis on the history and geography strands. Course content focuses on the migrations of early peoples, the rise of civilizations, the establishment of governments and religions, the growth of economic systems, and ways in which these events shaped Europe, Asia, Africa, and the Americas. Unique to this course are experiences that provide for the study of the how human beings view themselves over time.

To address the independent and curious nature of eighth graders, instruction is designed to actively involve students in critical thinking and the exchange of ideas, including critical evaluation, interpretation, reasoning, and deduction. Instruction of this nature can best be accomplished through the use of electronic media such as the Internet, videos, and television as well as by participation in small-group and individual activities.

Abbreviated terms used in Grade 8 content standards include *A.D.* (abbreviation of *anno Domini*, Latin for “in the year of our Lord”) and *B.C.* (“before Christ”). These designations are used to label years on the Gregorian calendar. The terms *C.E.* (meaning “in the Common Era”) and *B.C.E.* (meaning “before the Common Era”) are beginning to be utilized by some schools of theology as well as appear in some publications such as state and national assessments and national history standards. The use of the abbreviated terms of *C.E.* and *B.C.E.*, also based on the Gregorian calendar, does not in any way, diminish or negate the importance of the terms *A.D.* and *B.C.*

Students will:

E	G	H	CG
			

1. Explain how artifacts and other archaeological findings provide evidence of the nature and movement of prehistoric groups of people.

Examples: cave paintings, Ice Man, Lucy, fossils, pottery

- Identifying the founding of Rome as the basis of the calendar established by Julius Caesar and used in early Western civilization for over a thousand years
- Identifying the birth of Christ as the basis of the Gregorian calendar used in the United States since its beginning and in most countries of the world today, signified by *B.C.* and *A.D.*
- Using vocabulary terms other than *B.C.* and *A.D.* to describe time
Examples: *B.C.E.*, *C.E.*
- Identifying terms used to describe characteristics of early societies and family structures Examples: *monogamous*, *polygamous*, *nomadic*

E	G	H	CG
			

2. Analyze characteristics of early civilizations in respect to technology, division of labor, government, calendar, and writings.

- Comparing significant features of civilizations that developed in the Tigris-Euphrates, Nile, Indus, and Huang He River Valleys
Examples: natural environment, urban development, social hierarchy, written language, ethical and religious belief systems, government and military institutions, economic systems
- Identifying on a map locations of cultural hearths of early civilizations Examples: Mesopotamia, Nile River Valley

E	G	H	CG
			

3. Compare the development of early world religions and philosophies and their key tenets.

Examples: Judaism, Hinduism, Confucianism, Taoism, Christianity, Buddhism, Islam, Greek and Roman gods

- Identifying cultural contributions of early world religions and philosophies
Examples: Judaism, Hinduism, Confucianism, Taoism, Christianity, Buddhism, Islam, Greek and Roman gods, Phoenicians

E	G	H	CG
			

4. Identify cultural contributions of Classical Greece, including politics, intellectual life, arts, literature, architecture, and science.

E	G	H	CG
			

5. Describe the role of Alexander the Great in the Hellenistic world.
 Examples: serving as political and military leader, encouraging cultural interaction, allowing religious diversity
- Defining boundaries of Alexander the Great’s empire and its economic impact
 - Identifying reasons for the separation of Alexander the Great’s empire into successor kingdoms
 - Evaluating major contributions of Hellenistic art, philosophy, science, and political thought

E	G	H	CG
			

6. Trace the expansion of the Roman Republic and its transformation into an empire, including key geographic, political, and economic elements.
 Examples: expansion—illustrating the spread of Roman influence with charts, graphs, timelines, or maps transformation—noting reforms of Augustus, listing effects of Pax Romana
- Interpreting spatial distributions and patterns of the Roman Republic using geographic tools and technologies

E	G	H	CG
			

7. Describe the widespread impact of the Roman Empire.
 Example: spread of Roman law and political theory, citizenship and slavery, architecture and engineering, religions, sculptures and paintings, literature, and the Latin language
- Tracing important aspects of the diffusion of Christianity, including its relationship to Judaism, missionary impulse, organizational development, transition from persecution to acceptance in the Roman Empire, and church doctrine
 - Explaining the role of economics, societal changes, Christianity, political and military problems, external factors, and the size and diversity of the Roman Empire in its decline and fall

E	G	H	CG
			

8. Describe the development of a classical civilization in India and China.
 Examples: India—religions, arts and literature, philosophies, empires, caste system
 China—religions, politics, centrality of the family, Zhou and Han Dynasties, inventions, economic impact of the Silk Road and European trade, dynastic transitions
- Identifying the effect of monsoons on India
 - Identifying landforms and climate regions of China
 Example: marking landforms and climate regions of China on a map

9. Describe the rise of the Byzantine Empire, its institutions, and its legacy, including the influence of the Emperors Constantine and Justinian and the effect of the Byzantine Empire on art, religion, architecture, and law.

E	G	H	CG

- Identifying factors leading to the establishment of the Eastern Orthodox Church

10. Trace the development of the early Russian state and the expansion of its trade systems.

E	G	H	CG

Examples: rise of Kiev and Muscovy, conversion to Orthodox Christianity, movement of peoples of Central Asia, Mongol conquest, rise of czars

11. Describe early Islamic civilizations, including the development of religious, social, and political systems.

E	G	H	CG

- Tracing the spread of Islamic ideas through invasion and conquest throughout the Middle East, northern Africa, and western Europe

12. Describe China's influence on culture, politics, and economics in Japan, Korea, and Southeast Asia.

E	G	H	CG

Examples: culture—describing the influence on art, architecture, language, and religion
 politics—describing changes in civil service economics—introducing patterns of trade

13. Compare the African civilizations of Ghana, Mali, and Songhai to include geography, religions, slave trade, economic systems, empires, and cultures.

E	G	H	CG

- Tracing the spread of language, religion, and customs from one African civilization to another
- Illustrating the impact of trade among Ghana, Mali, and Songhai Examples: using map symbols, interpreting distribution maps, creating a timeline

14. Describe key aspects of pre-Columbian cultures in the Americas including the Olmecs, Mayas, Aztecs, Incas, and North American tribes.

E	G	H	CG

Examples: pyramids, wars among pre-Columbian people, religious rituals, irrigation, Iroquois Confederacy

- Locating on a map sites of pre-Columbian cultures Examples: Maya, Inca, Inuit, Creek, Cherokee

15. Describe military and governmental events that shaped Europe in the early Middle Ages (600-1000 A.D.).

E	G	H	CG

Examples: invasions, military leaders

- Describing the role of the early medieval church
- Describing the impact of new agricultural methods on manorialism and feudalism

Kindergarten – Second Grade

Technology Operations and Concepts

Students will:

1. Identify basic parts of various technology systems.
 - Naming input and output devices
Examples: input—keyboard, stylus output—printer
2. Identify applications and operations of various technology systems.
Examples: applications—word processing, multimedia presentation software operations—opening, closing, and saving files
 - Using accurate terminology related to technology
Example: “press,” not “hit,” keys
 - Using input devices to enter letters, numbers, and symbols
 - Using special functions of input devices
Example: keyboard shortcuts
 - Labeling storage media
 - Removing storage media safely
3. Demonstrate correct posture and finger placement while using a technology system.

Digital Citizenship

4. Identify safe use of technology systems and applications.
Examples: protecting personal information online, avoiding inappropriate sites, exiting inappropriate sites
5. Practice responsible use of technology systems and applications. Example: maintaining proper settings
 - Demonstrating care of digital equipment and media
Examples: washing hands before use, cleaning work area before and after use
 - Distinguishing between ethical and unethical use of others’ work
Examples: avoiding plagiarism, avoiding manipulation of others’ work without permission
6. Identify uses of technology systems in daily living.

Research and Information Fluency

7. Use digital tools to access and retrieve information.
Examples: online libraries, multimedia dictionaries, search engines, directories
 - Evaluating accuracy of digital content
Example: determining fact versus opinion

Communication and Collaboration

8. Use digital environments to exchange ideas with individuals or groups.
Examples: other states, other countries
 - Producing digital works collaboratively
Examples: developing shared writing projects, creating language experience stories

Critical Thinking, Problem Solving, and Decision Making

9. Identify digital tools used for problem solving.
Examples: spell check, digital graphic organizers, electronic drawing programs, simulation software

Creativity and Innovation

10. Design original works using digital tools.
Examples: tools—digital drawing tools, music software, word processing software, digital cameras

Third – Fifth Grade

Technology Operations and Concepts

Students will:

1. Use input and output devices of technology systems.
Examples: input—recording devices, keyboards, touchscreens output—printers
 - Demonstrating ergonomics relative to technology systems
 - Demonstrating correct keyboarding techniques
 - Demonstrating safe removal of storage media
2. Use various technology applications, including word processing and multimedia software.
 - Using navigational features commonly found in technology applications
 - Identifying digital file types
3. Identify common hardware and software problems.
 - Determining basic troubleshooting strategies to correct hardware and software problems
4. Identify various operating systems of technology devices.

Digital Citizenship

5. Practice safe use of technology systems and applications.
Examples: protecting personal information online, avoiding inappropriate sites, exiting inappropriate sites
6. Describe social and ethical behaviors related to technology use.
Examples: social—developing positive attitudes for using technology collaboratively
ethical—citing sources of text and digital content, avoiding plagiarism, avoiding manipulation of others' work without permission
 - Describing the global nature of the Internet
 - Following local acceptable-use policies regarding technology
 - Identifying intrusive applications, including worms, viruses, spyware, and pop-up advertisements
7. Explain the influence of technology on society.
Examples: multiple digital communities, medical and agricultural advancements

Research and Information Fluency

8. Collect information from a variety of digital sources.
Examples: online libraries, multimedia dictionaries
 - Using technology tools to organize information
 - Demonstrating efficient Internet search strategies
Example: keyword search
 - Evaluating electronic resources for reliability based on publication date, bias, accuracy, and source credibility
9. Use technology tools to organize, interpret, and display data.
Examples: spreadsheets, databases, electronic graphing tools

Communication and Collaboration

10. Use digital environments to collaborate and communicate.
Examples: publishing online journals, sharing presentations, contributing to online discussions, communicating with experts
 - Producing digital works collaboratively
Examples: developing shared writing projects and group multimedia projects

Critical Thinking, Problem Solving, and Decision Making

11. Use digital tools to analyze authentic problems.
Examples: electronic graphing tools, concept-mapping software

Creativity and Innovation

12. Create a product using digital tools.
Examples: products—digital story, podcast, digital artwork

Sixth – Eighth Grade

Technology Operations and Concepts

Students will:

1. Appraise technology systems to determine software and hardware compatibility.
2. Publish digital products that communicate curriculum concepts.
Examples: Web pages, videos, podcasts, multimedia presentations
3. Explain how network systems are connected and used.
Examples: file sharing, collaborating, wireless networking
4. Determine basic troubleshooting strategies to correct common hardware and software problems.
Examples: checking connections, restarting equipment, creating a backup copy of digital data
 - Describing the importance of antivirus and security software
5. Use basic features of word processing, spreadsheets, databases, and presentation software. Examples: word processing—reports, letters, brochures
spreadsheets—discovering patterns, tracking spending, creating budgets
databases—contact list of addresses and telephone numbers
presentation software—slideshow
6. Select specific digital tools for completing curriculum-related tasks.
Examples: spreadsheet for budgets, word processing software for essays, probes for data collection
7. Demonstrate correct keyboarding techniques.

Digital Citizenship

8. Identify safe uses of social networking and electronic communication.
 - Recognizing dangers of online predators
 - Protecting personal information online
9. Practice responsible and legal use of technology systems and digital content.
Examples: avoiding plagiarism; complying with acceptable-use policies, copyright laws, and fair use standards; recognizing secure Web sites
 - Identifying examples of computer crime and related penalties
Examples: computer crime—phishing, spoofing, virus and worm dissemination, cyberbullying penalties—fines, incarceration
 - Citing sources of digital content

10. Describe advances in technology and effects of each on the workplace and society.
Examples: agriculture, manufacturing, medicine, warfare, transportation, communication, education

Research and Information Fluency

11. Use digital tools and strategies to locate, collect, organize, evaluate, and synthesize information.
Examples: locating—Boolean searches, graphic organizers, spreadsheets, databases
collecting—probeware, graphing calculators
organizing—graphic organizers, spreadsheets evaluating—
reviewing publication dates, determining credibility synthesizing—
word processing software, concept-mapping software

Communication and Collaboration

12. Use digital tools to communicate and collaborate at all levels from interpersonal to global. Examples: instant messages, e-mail, blogs, wikis, collaborative authoring tools, online learning communities
 - Demonstrating digital file transfer
Examples: attaching, uploading, downloading

Critical Thinking, Problem Solving, and Decision Making

13. Use digital tools to formulate solutions to authentic problems.
Examples: electronic graphing tools, probes, spreadsheets

Creativity and Innovation

14. Use digital tools to generate new ideas, products, or processes.
Examples: ideas—predictions, trends
products—animation, video processes—
models, simulations

Music

Kindergarten

Most children enter kindergarten, the beginning of their formal education, with a repertoire of songs they may have learned from family members or from childcare or preschool experiences. These songs are the basis from which music educators begin, moving the student from the familiar to new learning experiences in the area of music.

The learning environment in kindergarten incorporates active participation by students. Students learn basic music skills by singing and echoing short rhythm patterns. They learn to differentiate between singing and speaking voices, begin learning basic conducting cues, demonstrate understanding of basic rhythmic concepts, learn to play various rhythm instruments, and begin to recognize changes in the dynamics and tempo of music. They also begin to discern differences in phrases and to improvise simple four-beat melodies. Kindergarten students are able to sing pitch within the range of D below the staff to third line B.

Through content standards for kindergarten, students develop knowledge of various songs and musical styles and learn to express themselves through movement. They are engaged in activities that allow them to experience an enjoyment of music while developing performance skills in the areas of speaking, singing, moving, and playing instruments. The foundation gained in kindergarten prepares students for the study of music at the next grade level.

Produce

Students will:

1. Sing simple songs alone and with others following the contour of melody.
 - Memorizing songs
2. Demonstrate responses to nonverbal conducting cues. Examples: sit, stand, listen, sing, start, stop
3. Imitate a steady beat while playing various rhythm instruments.
 - Recognizing the presence or absence of a steady beat
4. Echo short rhythm patterns consisting of quarter notes, quarter rests, and paired eighth notes.
5. Improvise four-beat melodies using “la,” “sol,” and “mi.”
6. Create expressive movement to folk songs, folk games, lullabies, and marches. Examples: skipping to “Skip to My Lou,” marching to “Yankee Doodle”
 - Expressing musical ideas using creative movement and body percussion

7. Identify similarities and differences in familiar songs, including fast or slow and loud or soft. Example: comparing a march to a lullaby
8. Identify like and unlike phrases presented aurally in a piece of music.
9. Identify solo or group performances by sound.
10. Identify sets of two and three beats.

Understand

11. Recognize differences between adult and children's voices.
12. Demonstrate singing and speaking voices.
Example: singing and reciting the alphabet
13. Recognize holiday songs and simple songs from other cultures and countries. Examples: holiday—"Jingle Bells," other cultures and countries—"Frère Jacques"
14. Identify various rhythm instruments by sight.
15. Differentiate high and low vocal sounds through vocal exploration.
Example: producing aurally the sounds of a bird and a cow
16. Identify the seven letters of the musical alphabet.

Music

First Grade

In first grade, students' listening skills are more refined, as is their ability to be expressive through singing. Fine motor skills are becoming more developed, and through active learning experiences, their cognitive skills increase.

In the music classroom, first-grade students continue to develop skills in speaking, singing, listening, playing instruments, and in creating movement. Students learn to identify dynamic markings, clap rhythm patterns, and begin to recognize the difference between a note and a rest. Basic music reading abilities, such as identifying quarter notes and rests and determining melodic direction on a staff, are also addressed during this grade. First-grade students are able to sing pitches within the range of D below the staff to third space C.

The classroom environment in Grade 1 is one of active participation and exploration by students. Therefore, music educators of first-grade students should incorporate a variety of instructional strategies that allow students to learn by “doing.”

Produce

Students will:

1. Sing songs from various cultures and countries within an age-appropriate vocal range, using clear vocal tones.
 - Singing short melodic passages that indicate upward and downward movement in a melody Example: singing “Hot Cross Buns”
 - Singing expressively using appropriate dynamics and tempo Examples: *piano* (*p*), *forte* (*f*)
 - Matching pitch
 - Distinguishing between accompanied and unaccompanied songs
2. Improvise four-beat melodies using “mi,” “re,” and “do.”
3. Demonstrate rhythm patterns by reading quarter notes, quarter rests, paired eighth notes, and half notes, including playing them on various rhythm instruments.
 - Clapping repeated rhythm patterns in familiar songs
 - Performing accompaniments on pitched or nonpitched percussion instruments using a steady beat
 - Improvising a response to a simple rhythmic pattern

4. Demonstrate vocal responses to conductor cues for loud and soft.
5. Identify melodic direction on the musical staff.
Examples: upward, downward, same
6. Identify notes as being line note or space note on a musical staff.
7. Identify by sight and sound the difference between a note and a rest.
8. Identify musical phrases in a song presented aurally.
Example: “Twinkle, Twinkle, Little Star”
9. Use creative movement to express the mood of musical selections.
Examples: skipping happily, tiptoeing when scared
10. Identify duple meter as strong-weak beat organization.
11. Identify AB form in a musical selection.
12. Identify long and short musical sounds.

Understand

13. Distinguish between low and high sounds produced by voices or instruments. Examples: low pitch—kettle drum, man’s voice; high pitch—triangle, woman’s voice
14. Identify the number of lines and spaces on the treble clef staff.
15. Describe how vibrations produce musical sounds.

Music

Second Grade

Second-grade students are beginning to exhibit more independence in their thought processes and are able to understand more complex concepts. They exhibit independence in using acquired knowledge to form opinions and personal choices. However, they continue to need teacher guidance and monitoring.

In the music classroom, second-grade students are refining their musical skills by accomplishing increasingly rigorous standards. Aural skills needed to identify phrases, dynamics, form, and tone color are further developed, as are basic music reading skills. Second-grade students are able to sing pitches within the range of D below the staff to fourth line D. They classify rhythm instruments by sound produced and use pitched instruments to perform accompaniments. They also explore components of music through listening centers, playing instruments, and discovering “found sounds” in their environments.

Produce

Students will:

1. Sing on pitch using good posture.
 - Singing simple melodic *ostinati*
2. Improvise eight-beat melodies using “la,” “so,” “mi,” “re,” and “do.”
3. Perform accompaniments to poems, rhymes, stories, dramatizations, and songs using pitched instruments.
 - Demonstrating rhythm patterns by reading quarter notes, quarter rests, paired eighth notes, and half notes
 - Selecting appropriate classroom instruments to create musical accompaniments
 - Singing songs representative of other cultures and countries
 - Performing folk dances appropriate for age level to music from various cultures.
Example: Chinese ribbon dance
 - Playing simple rhythmic *ostinati*

Respond

4. Identify music terms related to tempo changes in music, including *accelerando* and *ritardando*.
5. Identify triple meter as strong-weak-weak beat organization.
6. Identify ABA form in a musical selection.
Examples: creating pictures that use shapes to illustrate patterns, comparing musical forms to visual arts
7. Identify steps, leaps, and repeated notes in printed music.

Understand

8. Identify American patriotic songs.
Examples: “Star Spangled Banner,” “America,” “God Bless America”
9. Classify rhythm instruments by method of tone production, including striking, shaking, scraping, and ringing.
10. Identify letter names of lines and spaces on the treble clef staff.
Example: naming the spaces on a blank treble clef staff
- 11.** Identify the difference between a verse and a refrain in a familiar musical selection.
12. Identify dynamic markings of *forte* (*f*) and *piano* (*p*).
13. Distinguish between various vocal and instrumental timbres. Examples:
male and female voices, simple classroom instruments

Music

Third Grade

In third grade, students are active, curious, and eager to learn. They need greater independence as they progress in cognitive, social, emotional, and physical development. Students remain primarily concrete learners, acquiring knowledge through visual and auditory stimulation as well as hands-on experiences.

The learning environment of the third-grade music classroom is one that reflects the energy and enthusiasm of its students. Students work together as a community of learners in an atmosphere in which their ideas and contributions are valued. This environment promotes self-confidence, and is one in which students are more receptive to suggestions for improvement.

Content standards in Grade 3 emphasize the development of proper vocal technique; performance of simple melodic, rhythmic, and chordal accompaniments; and identification of instruments by sight and sound. Third-grade students are also able to sing pitches within the range of D below the staff to fourth line D. These skills, along with others, continue to serve as the foundation for the advanced content in subsequent grades.

Produce

Students will:

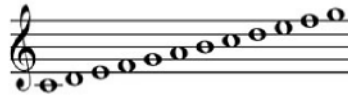
1. Demonstrate proper vocal technique by using pure head tone, good posture, and correct rhythm.
 - Using appropriate dynamics while singing expressively
 - Singing rounds
 - Singing songs of other cultures and countries
2. Sing melodic *ostinati* to create harmony.
3. Improvise eight-beat melodies using “la,” “so,” “mi,” “re,” “do,” and quarter-note and eighth-note rhythms.
4. Play rhythm patterns, including whole notes and dotted half notes using pitched or nonpitched instruments or by clapping.
5. Perform rhythmic *ostinati* while others are singing a melody.
 - Identifying the components of a chord

Respond

- Demonstrate melodic contour through creative movement.
Example: using gestures or drawings to indicate upward and downward direction of melody
- Recognize conductor cues $\frac{2}{4}$ and $\frac{4}{4}$ meter signatures.
- Identify ABC form in musical selections.
- Identify meter according to strong and weak beat organization.
Examples: strong, weak — $\frac{2}{4}$; strong, weak, weak, weak — $\frac{4}{4}$

Understand

- Identify music symbols found on the staff, including the treble clef, meter signatures, bar lines, measures, double bar line, and repeat signs.
 - Defining terms associated with printed music, including *fermata*, slur, *fine*, and *da capo* (D.C.)
- Identify the four families of instruments in an orchestra.
- Identify music terms related to dynamics in music, including *fortissimo* (*ff*) and *pianissimo* (*pp*).



- Identify the musical alphabet ascending on lines and spaces from middle C to G above the staff. Example:

Music

Fourth Grade

Students in Grade 4 are becoming more expressive. They are developing both socially and emotionally and often look to their peers for social acceptance. Fourth-grade students are intrigued with the varied sounds they make with their voices and find opportunities to use their speaking and singing voices with proper pitch, phrasing, pace, modulation, and gestures. To nurture this interest, the classroom environment promotes the active engagement of students in their own learning through independent and group projects. These experiences prepare students for new content found in the music curriculum.

Content standards in Grade 4 continue to build upon prior knowledge. Additional concepts, techniques, and vocal requirements are added to those already mastered by students. At this grade level, students perform a varied repertoire of music, sing expressively, echo rhythmic and melodic patterns, and create their own musical compositions. Fourth-grade students are also able to sing pitches within the range of middle C to fourth space E. Through these musical experiences students continue to develop cognitively, physically, socially, and emotionally.

Produce

Students will:

1. Perform a varied repertoire of music using vocal technique, pure head tone, good diction, good posture, proper pitch and rhythm, and breath control.
 - Singing intervals within the major pentatonic scale
 - Responding to conducting patterns of 4 2 , 4 3 , and 4 4 meter signatures
 - Singing *legato* and *staccato*
 - Singing songs of other cultures and countries
 - Singing using a variety of dynamics
2. Sing in rounds or canons to create harmony.
 - Singing partner songs
3. Improvise eight-beat melodies using “sol,” “mi,” “la,” “re,” and “do” with half notes, quarter notes, quarter rests, and syncopation.
4. Perform simple chord progression on pitched instruments. Example: I, V, I

5. Perform simple melodies on pitched instruments.
Examples: recorders, barred instruments, keyboards
6. Perform rhythm patterns, including syncopation and eighth- and sixteenth-note combinations on various rhythm instruments.
 - Playing melodic and rhythmic *ostinati*
7. Create new words for familiar songs, indicating phrase structure.

Respond

8. Improvise pentatonic melodies using a variety of sound sources, including electronic sources.
9. Identify ledger-line notes C and B below the treble staff.
10. Identify theme and variations in musical selections.

Understand

11. Identify melodic sequences in a melody.
Example: motif from first movement of Ludwig von Beethoven's *Symphony No. 5*
12. Classify orchestral instruments by family.
 - Identifying individual instruments by sight
 - Identifying individual instruments by sound
13. Recognize styles of twentieth-century music.
Examples: jazz, pop, country

Music

Fifth Grade

Students in Grade 5 are experiencing rapid growth in their emotional and social development. As they become more aware of their immediate surroundings, student interest in the expanded environment begins to emerge. Students need guidance to recognize relationships between music and other disciplines as they develop a more sophisticated sense of music, using it to reflect their feelings and emotions. The fifth-grade music classroom provides a positive learning environment that encourages students to participate in classroom activities while using good posture, intonation, correct rhythm, and breath control.

Content standards in Grade 5 offer opportunities for students to become engaged in singing, notating, and composing, while musically defining techniques and process. They are able to play rhythm patterns and begin to recognize instruments in the orchestra by sight and sound. Fifth-grade students are also able to sing pitches within the range of middle C to fourth space E. These skills enable students to transition smoothly into Grades 6-8 Music or into Level I of either Vocal or Instrumental Music.

Produce

Students will:

1. Sing intervals on pitch within a major diatonic scale.
2. Improvise eight-beat melodies using “la,” “sol,” “mi,” “re,” and “do” with a variety of rhythms and phrases.
3. Play rhythm patterns, including triplets and dotted eighth- and sixteenth-note combinations on pitched and nonpitched instruments.
 - Notating rhythms in 2/4, 3/4, 4/4, and ⁶⁸ meter signatures
 - Identifying tempo markings such as *allegro*, *presto*, *largo*, and *andante*
4. Perform simple melodies on recorders.
5. Improvise melodies in a major diatonic scale by singing or using a pitched instrument.

6. Compose melodies and accompaniments to songs, poems, stories, and dramatizations, using AB, ABA, and *rondo* forms.
 - Identifying components of a given composition, including harmony, melody, rhythm, texture, form, timbre, and expressive elements
7. Sing partner songs to create harmony.
 - Singing descants
8. Demonstrate appropriate use of *legato* and *staccato* in a song.

Respond

9. Recognize conducting patterns of $\begin{matrix} 2 & 3 \\ 4 & 4 \end{matrix}$, $\begin{matrix} 4 \\ 4 \end{matrix}$, and $\begin{matrix} 4 \\ 4 \end{matrix}$ meter signatures.
10. Identify ledger-line notes A, B, and C above the treble staff.

Understand

11. Identify whole and half steps of the major diatonic scale in printed music.
 - Identifying intervals of the diatonic scale in printed music
 - Recognizing the difference between major and minor tonality
12. Identify instruments in an orchestra by sight and sound.
13. Recognize vocal timbre as soprano, alto, tenor, or bass.
14. Identify eras of music.

Examples: Baroque, Classical, Romantic, contemporary

 - Identifying composers of each era of music

Music

Grades 6-8

Produce

Students will:

1. Play melodies on the recorder within an octave range, using a pleasing tone quality.
 - Demonstrating proper posture, hand position, and *embouchure* for playing a recorder
 - Identifying members of the recorder family
Examples: soprano, alto, tenor, bass
 - Demonstrating proper pitch control of notes in the lower register of the soprano recorder
 - Playing two- and three-part arrangements
2. Demonstrate a characteristic sound while singing unison or two-part songs.
 - Singing descants to produce harmony
3. Sight-read rhythm patterns commonly found in middle-level literature.
4. Sight-read eight-beat, stepwise, and unison melodic patterns.
5. Compose an eight-measure melody based on a diatonic scale using familiar rhythmic patterns.
6. Create movement to illustrate the form of a composition.

7. Describe the characteristics used by the composer in a selected musical example to create a mood or effect.
Example: Edvard Grieg's use of changes in tempo, dynamics, and instrumentation to create excitement in *In the Hall of the Mountain King*
8. Identify the names of lines and spaces in the bass clef.
 - Identifying accidentals, including flats, sharps, and naturals
9. Recognize I, IV, and V chords in C and F major.
 - Creating chordal accompaniments
10. Identify composite forms, including opera, oratorio, and musical theatre.
11. Identify polyphonic texture.

Understand

12. Identify the relationship of American music to American history.
Example: “We Shall Overcome” as a symbol of the Civil Rights Movement
13. Identify characteristic differences in music of various cultures.
Examples: Western music based on diatonic scale, music of the Far East based on pentatonic scale
 - Identifying instruments unique to a specific culture
Examples: bagpipe—Scottish, talking drums—African
 - Identifying ensembles unique to a specific culture
Examples: jazz band—American,
 mariachi band—Mexican,
 steel drums—Jamaican
14. Identify the relationship between music and other content areas.
Examples: graphing techniques used in music and mathematics to visualize relationships between two variables; investigations used in music and science to explore how sound travels; writing, reading, and diction studied in music and English language arts; specific terms used in music and visual arts for repeated patterns
 - Identifying uses of technology in music
15. Distinguish between compound duple and simple duple meter.
16. Identify irregular meters.
Examples: 7/8, 5/4
17. Demonstrate rhythmic augmentation and diminution in a familiar tune.

Instrumental Music

Grades 6-12

Level I

Level I Instrumental Music is designed for the beginning instrumental music student in Grades 6-12. Though taken most frequently by middle school students, this course may be taken in any grade, 6-12, allowing students to begin instrumental music instruction even in high school. The classroom environment, therefore, challenges and supports the varied needs of students whose ages range from 11 to 18. For most instrumental music programs, Level I standards will be met during the first year of experience on an instrument. In situations involving programs that begin earlier than middle school or for classes that do not meet daily, two years may be required to master standards at this level. Content in Level I Instrumental Music may be used to fulfill the requirements for a one-half credit or a one-credit instrumental music course. One credit may be awarded for mastery of all content standards. For a one-half credit course, content standards 1, 2, 3, 6, 8, 9, 10, and 11 must be mastered.

Level I Instrumental Music standards emphasize the essential elements needed for playing a musical instrument. Students who master these standards are able to produce sounds characteristic of the instrument and demonstrate the components essential to the production of characteristic tones, including posture, ear, *embouchure*, attack, breath support, sustaining tone, and release. Students become well-versed in the ability to count and sight-read rhythms. They are becoming adept at learning the full spectrum of scales; percussionists are also beginning to develop mastery of rudiments. All students learn the value of listening to and imitating the tone quality they hear through recorded performances. They also learn that music connects to the history of their own culture as well as to other cultures around the world.

Produce

Students will:

1. Demonstrate the components necessary for characteristic tone production in the middle register at a *mezzo forte* level.
 - Examples: demonstrating correct posture and playing position, adjusting tone quality while playing, forming correct *embouchure*, beginning tone with correct attack, supporting tone with proper breath support, sustaining tone without wavers in pitch or intensity, releasing tone on pitch
 - Adjusting pitch to a tuning standard
 - Example: using an electronic tuner to adjust the length of the instrument

2. Sight-read unison literature in the appropriate clef.
 - Counting music that contains the whole note and rest, half note and rest, dotted half note, quarter note and rest, eighth note and rest, and dotted quarter note and eighth rest in $\begin{matrix} 2 & 3 & 4 & 2 \\ 4 & 4 & 4 & 2 \end{matrix}$ and meter signatures using a counting system $\begin{matrix} 6 \\ 8 \end{matrix}$
 - Performing music that contains the whole note and rest, half note and rest, dotted half note, quarter note and rest, eighth note and rest, and dotted quarter note and eighth rest in $\begin{matrix} 2 & 3 & 4 & 2 \\ 4 & 4 & 4 & 2 \end{matrix}$ and meter signatures $\begin{matrix} 6 \\ 8 \end{matrix}$
 - Playing notes from the printed page within the appropriate clef
 - Performing music containing the dynamic markings of *crescendo*, *decrescendo*, *p*, *mp*, *mf*, and *f*
 - Performing music that combines the basic articulations of tonguing, slurring, accent, *legato*, and *staccato* for winds and *détaché*, *pizzicato*, and slurring for strings
 - Performing as a member of a large group and small ensemble with attention to balance and intonation
3. Perform major scales and their related *arpeggios*, including concert B^b, E^b, and A^b and chromatic scale from concert B^b to B^b for wind and percussion instruments; scales C, G, and D chromatic scale from concert C to C for strings; and rudiments consisting of five- and nine-stroke rolls, flam, single paradiddle, and *flamacue* for percussion.
4. Demonstrate correct fingerings for all notes in the practical range of personal instruments.
5. Compose an eight-measure melody based on a diatonic scale and written in the practical playing range of an instrument.
 - Transposing a melody into a different key

Respond

6. Demonstrate conducting patterns of four, three, and two beats per measure; entrance cues; and cutoffs.
7. Identify characteristics of various forms of musical compositions.
Examples: march typically fast and detached, chorale typically slow and connected
8. Critique live or videotaped performances with respect to tone quality.

Understand

9. Name written pitches on the instrument when given concert pitch.
Example: concert B^b corresponding to written C on a clarinet
10. Identify the size of the interval between two given notes. Example: C to E being a 3rd
 - Identifying size and quality of intervals between two given notes Example: C to E being a major 3rd

11. Demonstrate appropriate care of personal instruments.
Examples: assembling a clarinet, removing moisture from a flute, applying rosin to a violin bow
12. Define the elements of music, including melody, rhythm, form, timbre, harmony, and texture.
13. Identify various composers and stylistic periods of music.
Examples: Johann Sebastian Bach—Baroque period,
Wolfgang Amadeus Mozart—Classical period

Instrumental Music

Grades 6-12

Level II

Level II Instrumental Music is designed for the student with at least one year of experience on an instrument. For more advanced instrumental music programs, the standards at this level are requirements to be mastered by second-year students. For other programs, mastery of the standards may require both the second and third years of study. Content in Level II may be used to fulfill the requirements for a one-half credit or a one-credit instrumental music course. One credit may be awarded for mastery of all content standards. For a one-half credit course, content standards 1, 2, 3, 4, 5, 8, 12, 14, and 15 must be mastered.

For the many Alabama schools whose high school ensembles are composed of students in Grades 7-12, Level II standards provide a reasonable, yet challenging path for students with limited musical knowledge in the high school music program. Standards for Level II require students to widen their range of dynamics and the range at which they achieve a characteristic sound. Students learn to taper releases and pay special attention to how professional musicians use dynamics in their own playing. Sight-reading abilities are strengthened and students are capable of sight-reading Grade II literature at a mastery level. Additional scales and rudiments are also mastered, facilitating the ability to play in a wide variety of keys.

Produce

Students will:

1. Produce a characteristic tone in the middle and low register at all dynamic ranges, releasing a characteristic tone that is tapered and on pitch.
 - Sustaining a tone without wavers in pitch or intensity for 15 seconds on the flute or tuba and for 25 seconds on other wind instruments
2. Sight-read Grade II literature.
 - Performing music that contains the whole note and rest, half note and rest, dotted half note, quarter note and rest, eighth note and rest, dotted quarter note and eighth rest, and sixteenth note as appropriate in 4 2 , 3 4 , 4 4 , 2 2 , ³ 8 , 8 6 , 8 9 , and 12 8 meter signatures
 - Counting music that contains the whole note and rest, half note and rest, dotted half note, quarter note and rest, eighth note and rest, dotted quarter note and eighth rest, triplets, sixteenth note, and eight-quarter-eighth syncopation as appropriate in 4 2 , 4 3 , 4 4 , $\frac{2}{2}$, ³ 8 , 8 6 , 8 9 , and 12 8 meter signatures
 - Performing music that contains the dynamic markings of *crescendo*, *decrescendo*, *pp*, *p*, *mp*, *mf*, *f*, and *ff*
 - Performing music that utilizes the articulations of tonguing, *legato*, slurring, *marcato*, *tenuto*, *staccato*, and accent for winds and *staccato*, brush stroke, hooked bowings, *matelé*, *marcato*, *tremolo*, and multiple-note slurs for strings
 - Performing music containing first and second endings, *codas*, and breath marks
3. Demonstrate adjustment of pitch on personal instruments while playing with a group.

4. Demonstrate choices of breathing places in a manner that prevents breaking a phrase.
5. Perform concert C, F, B^b, E^b, and A^b major scales and their related *arpeggios* for wind and percussion instruments, two octaves on flute and clarinet; concert C, G, D, A, and F major scales and their related *arpeggios* for strings; and rudiments consisting of five-, seven-, and nine-stroke rolls, flam, flam accent, flam paradiddle, *flamacue*, ruff, single paradiddle, double paradiddle, and controlled open roll for a snare drum.
 - Performing a chromatic scale for the practical range of a personal instrument
 - Demonstrating the ability to tune the timpani to designated intervals, including perfect 4th and 5th and major 2nd and 3rd when given one note of the interval
6. Identify characteristically out-of-tune notes on personal instruments.
 Example: recognizing notes produced by first- and third-valve combinations on brass instruments as being sharp, notes C[#] and D^b on flutes as being sharp, notes in fifth and seventh partials as being flat
7. Demonstrate alternate fingerings within the practical range of personal instruments.

Respond

8. Critique live and videotaped performances by professional players to determine the variety of dynamic contrasts and articulations.
 - Identifying standard preparatory conducting beats, release motions, entrance cues, and expressive gestures used by a director
9. Explain the musical elements used to evoke feelings and emotions with a given instrument. Example: use of cannon in the *1812 Overture* to evoke excitement
10. List professional artists who play the same instrument as the student.
 Examples: Yo-Yo Ma—cello, Winston Marsalis—trumpet
11. Demonstrate a conducting pattern of six beats per measure, entrance cues, and cutoffs.
12. Notate from aural dictation rhythms including half notes, quarter notes, and eighth notes.

Understand

13. Discuss the importance of instrumental music in other cultures. Examples: promoting and exhibiting patriotism, embracing celebration
 - Describing the history of orchestral instruments

14. Identify the order of flats and sharps in major key signatures.
15. Demonstrate the construction of a major scale using the whole step-half step pattern.
16. Construct ascending intervals from a given pitch.
Example: showing A as the note a major 3rd higher than F
 - Constructing descending intervals from a given note
Example: showing D as the note a minor 3rd lower than F

KINDERGARTEN

The foundation for the physical education curriculum is established in kindergarten where the primary focus is on the development of fundamental motor skills and a functional understanding of movement concepts. Students in this grade are characterized by slow, steady growth rates, limited muscular strength and endurance, short attention spans, and the need for practice in interacting with others.

The kindergarten physical education classroom environment provides opportunities for challenge, exploration, self-expression, and social interaction. It also provides experiences that allow for student success, maximum participation, and enjoyment. Students begin to learn and utilize acceptable behaviors for physical activity settings and experience the joy and value of shared play. Regular physical activity is encouraged not only to provide exercise, but also to allow students to make connections between healthy behaviors and physical well-being.

Skill Development

Students will:

1. Travel while changing direction, speed, and pathways to avoid contact with peers.
Examples: traveling in general space slowly and quickly and over objects; traveling under, around, and through obstacles
2. Use correct form while marching and walking.
3. Demonstrate the nonlocomotor skills of bending, stretching, twisting, turning, rocking, and swaying.
4. Demonstrate throwing and catching skills by throwing a ball overhand and underhand and catching a tossed ball before it bounces twice.
5. Demonstrate individual rope-jumping skills by jumping over a rope lying on the floor, jumping over a swinging rope, and jumping a single rope five consecutive times.
6. Move rhythmically to even and uneven beats in creative dance, aerobic exercises, movement songs, and simple dances.
7. Demonstrate body control skills by balancing on multiple body parts, rolling sideways without hesitation, and landing with control from a jump.
8. Combine fundamental movement skills and concepts in simple games.
Examples: walking, marching, galloping in personal and general space

9. Apply movement vocabulary to fundamental skills upon teacher direction.

Examples: *personal space, general space, hop, jump, march, walk*

Social Development

10. Apply physical education class rules and procedures for starting and stopping, adhering to safety requirements, using equipment, and entering and exiting an activity.
11. Demonstrate willingness to play with a diverse range of students using sharing skills with equipment and working cooperatively with peers.
12. Demonstrate respect for classmates by playing without interfering with others and interacting appropriately with peers.

Physical Activity and Health

13. Describe benefits of regular participation in physical activities.
Example: developing a healthier body
14. Describe the location and function of the heart and lungs.
15. Identify appropriate footwear and clothing for participation in physical activities.

FIRST GRADE

The physical education curriculum for first grade continues to focus on the development of fundamental movement skills and concepts. First-grade students typically have mastered some fundamental skills but may have little proficiency in others. Students may have difficulty performing in complex and dynamic environments. Although their endurance level is still developing, students' activities are characterized by alternating degrees of high and low intensity.

Instruction in first grade includes ample opportunities for problem solving, exploration, and questioning. The effective physical education program provides for maximum levels of participation and high levels of success focusing on individual and partner work while introducing small-group work. As fundamental movement skills and concepts are learned, they are applied to simple games, rhythms, and gymnastics. First-grade students begin to recognize changes that occur within the body as a result of exercise as well as changes that occur as a result of active and inactive lifestyles.

Skill Development

Students will:

1. Demonstrate jumping and landing skills by using one- and two-foot takeoff methods, balancing at varying levels on multiple body parts, and forming bridges using different body parts.
Example: balancing on one foot and two hands in an asymmetrical position
2. Apply varied effort and pathways to running, jumping, and throwing.
3. Demonstrate nonlocomotor skills, including pushing and pulling.
4. Demonstrate manipulative skills by catching a bounced ball with hands, volleying a soft object, kicking a stationary object, and throwing a ball underhand with two hands.
5. Apply rhythmic movement to games, activities, and dances.
Example: combining traveling patterns in time to music
6. Perform individual and partner stunts.
Examples: animal walks, forward roll, single-leg balances, heel click
7. Demonstrate manipulative and traveling skills in game situations.

8. Apply movement vocabulary to fundamental movement skills.
Examples: standing side-by-side; moving over or under, around, or through objects
9. Identify cue words and terms associated with throwing, catching, running, and kicking.
10. Determine speed and type of movement based on rhythmic beat.
Examples: skipping more quickly or slowly to varying drum beats, dramatizing emotions evoked by the mood of a piece of music

Social Development

11. Explain the importance of empathy for feelings, concerns, and limitations of peers.
Examples: explaining the importance of being part of a group; helping others cope with tragedy, home life changes, or limited physical or medical conditions
12. Demonstrate responsibility and cooperative skills in physical activity settings by helping peers, assisting the teacher, and sharing space and equipment.

Physical Activity and Health

13. Identify exercises that improve flexibility, muscular strength and endurance, cardiorespiratory endurance, and body composition.
14. Explain differences between active and inactive lifestyles.
15. Explain effects of smoking, lack of sleep, and poor dietary habits on health and physical performance.

SECOND GRADE

The second-grade curriculum emphasizes the refinement of fundamental movement skills and a functional understanding of movement concepts. Attention is focused on student development of the correct form of locomotor and nonlocomotor skills and on the acquisition of some manipulative skills. Students continue to exhibit slow, steady growth and begin to demonstrate a greater ability to maintain attention.

Instruction in second grade includes numerous opportunities for problem solving, exploration, and questioning. The program provides for maximum levels of participation and high levels of success. Second-grade students follow directions and work effectively alone, with a partner, or in a group. The focus of instruction is on the refinement of fundamental skills, the ability to combine these skills, and the application of movement concepts in games, rhythms, and gymnastic activities. Endurance is improving and students are encouraged to maintain moderate-to-vigorous activity for longer periods of time and are given opportunities to explore the relationship of activity type to health-related fitness.

Skill Development

Students will:

1. Demonstrate leaping and jumping skills by transferring and absorbing body weight in different ways.
Examples: leaping and absorbing weight on one foot, jumping and absorbing weight on two feet
2. Demonstrate movements that combine shapes, levels, and pathways into simple sequences.
3. Apply body management skills on the floor and on apparatus while performing simple individual and partner stunts.
4. Demonstrate correct form while hopping, galloping, jumping, and sliding.
5. Demonstrate ball moving skills by passing, dribbling a ball with dominant hand, kicking a slow moving ball, and throwing underhand with one arm.
6. Display basic rope-jumping skills.
Examples: demonstrating a double side swing with a jump, demonstrating a side straddle, swinging a long rope with a partner
7. Demonstrate simple folk, line, and mixer dances.
Examples: rhythm stick routines, ribbon dance routines, polka
8. Utilize combinations of the fundamental movement skills of chasing, fleeing, and dodging.

Cognitive Development

9. Identify cue words and terms associated with hopping, galloping, jumping, and sliding.

Social Development

10. Explain ways to resolve conflicts during physical activity in a school-approved manner. Examples: walking away, speaking in a calm voice
11. Demonstrate safety rules for physical education activities, including games that require implements and tag games that have designated boundaries.

Physical Activity and Health

12. Describe the immediate effect of physical activity on heart rate, breathing rate, and perspiration.
Example: heart beat, breathing rate, amount of sweat increasing or decreasing according to intensity of activity
13. Explain how physical activity affects overall health, including the heart, lungs, and muscular system.
14. Explain ways in which food intake affects body composition and physical performance.

THIRD GRADE

The third-grade curriculum continues to emphasize the refinement of locomotor and nonlocomotor skills, movement concepts, and the acquisition of manipulative skills. Students display greater body control due to an increase in muscular strength, endurance, flexibility, agility, balance, and gross motor coordination. This natural process of growth and development enhances cardiorespiratory and respiratory functions, which enhance the ability to sustain moderate-to-vigorous physical activity for longer periods of time.

The third-grade physical education classroom environment provides for an increased focus on the development of self-reliance and self-directed skills. While cooperative games and activities continue to be utilized for instruction, competitive games are introduced. Emphasis is placed on working independently and on-task for extended periods of time. Activities are designed to allow all students to develop efficient, effective, and expressive movement combinations through the context of games, gymnastics, rhythms, and other physical activities. Physical activity as well as student responsibility for health and well-being is encouraged.

Skill Development

Students will:

1. Demonstrate correct form while skipping in general space.
2. Demonstrate ball control while dribbling with the hand or foot in a stationary position and while traveling within a group.
3. Demonstrate skills that require crossing the midline of the body, including hitting a ball off a tee and throwing a ball overhand.
4. Use the correct grip while consistently striking a softly thrown ball with a bat or paddle.
5. Demonstrate long-rope jumping skills by traveling in and out of a long rope without hesitation and executing consecutive jumps.
6. Perform rhythmic movement skills of folk, line, and aerobic dances, including incorporating combinations of locomotor skills and partner mixing. Examples: step-hop, aerobics, circle dances
7. Demonstrate supporting, lifting, and controlling body weight by transitioning in and out of balanced positions with control. Examples: headstand, cartwheel, mule kick

8. Apply combinations of complex locomotor and manipulative skills by chasing, tagging, dodging, and fleeing.
Examples: catching an object while fleeing from an opponent, avoiding an object while traveling

Cognitive Development

9. Describe how stability affects skill execution while participating in physical activity. Example: wider base of support contributing to greater stability
10. Utilize a variety of locomotor and manipulative skills to create new, or modify existing, games.

Social Development

11. Display good sportsmanship.
Example: congratulating a partner or opponent upon completion of play
12. Apply problem-solving, conflict-resolution, and teamwork strategies to cooperative and group challenges in physical education settings.
13. Utilize the cooperative skills of listening, discussing, leading, following, and sacrificing individual wants for the good of the group in physical activity settings.

Physical Activity and Health

14. Describe how the blood supplies oxygen and nutrients to the body.

FOURTH GRADE

By fourth grade, the development of locomotor skills is relatively complete. Program emphasis is on the acquisition of manipulative skills and the integration of locomotor and nonlocomotor skills into more complex movement patterns and specialized sport skills. Increased attention spans, enhanced small muscle control, and expanded thinking capacities allow fourth-grade students to experience success in a wide variety of physical activities.

The fourth-grade physical education classroom environment continues to focus on the development of self-reliance and self-directed skills. The refinement of all fundamental movement skills is addressed through cooperative and competitive games and modified sports as well as more complex rhythmic and gymnastic activities. This curriculum provides students with a variety of opportunities to develop positive attitudes toward physical activity, fitness, and overall health.

Skill Development

Students will:

1. Demonstrate correct form while leaping.
2. Demonstrate throwing, striking, and kicking skills by throwing overhand for distance and accuracy, striking with short and long implements, and kicking while approaching a moving object.
3. Demonstrate short- and long-rope jumping skills, including individual and partner jumping techniques. Examples: bell, skier, twister
4. Perform multicultural rhythmic dances, including introductory square dance. Examples: basic tinkling steps, aerobics, popular dances
5. Demonstrate gymnastic skills while maintaining proper body alignment by transitioning smoothly between sequences and balancing with control on apparatus. Examples: walking on a balance beam, transitioning from a right foot balance to a left balance while standing on a poly spot
6. Apply specialized sport skills in combination with fundamental movement skills in game situations. Example: passing a soccer ball to a team member while running down the field

Cognitive Development

7. Create appropriate physical education activities, including cooperative tasks, group challenges, and games.
8. Identify cue words and terms associated with leaping, striking, and kicking.
9. Identify formations and steps associated with dance. Examples: dance—square, line steps—grapevine, do-si-do
10. Demonstrate positive changes in performance based on peer and teacher evaluations.

Social Development

11. List consequences of compliance and noncompliance with rules and regulations while participating in physical activities and games.
12. Explain outcomes of positive versus negative responses to classmates when winning or losing.

Physical Activity and Health

13. Analyze varying intensities of exercise for effect on heart rate using manual pulse-checking or heart-rate monitors.
14. Identify devices used to measure cardiorespiratory endurance, muscular strength and endurance, body composition, and flexibility. Examples: heart rate monitor, skinfold caliper, sit-and-reach box, pull-up bar
15. Describe relationships among food intake, physical activity, and weight maintenance.

FIFTH GRADE

The fifth-grade curriculum focuses on individual skill refinement. Fifth-grade girls experience increases in fine motor skills and cognitive ability and begin to display physical characteristics of adolescence. Boys at this grade level demonstrate increases in upper body strength and development, while physical interest and competitiveness are easily observed during game situations.

The fifth-grade physical education classroom environment continues to focus on student independence and responsibility. Skill refinement is promoted through an increased amount of practice time in more complex game and sport situations. Application of rules, procedures, and etiquette is emphasized. In addition, lesson content provides a basic understanding of physiological principles as they apply to health and physical activity, health-related fitness components, and physical activities and exercises associated with a healthy life expectancy.

Skill Development

Students will:

1. Demonstrate correct form while sprinting and running for distance.
2. Demonstrate correct form while fielding and punting a ball.
3. Execute single and dual long-rope activities and stunts.
Examples: ball manipulation, simultaneous jumping and turning, performing routines to music
4. Demonstrate rhythmic dances, including modern, aerobic, and ethnic.
Examples: grapevine, schottische, polka, tinkling, two-step, square dance
5. Demonstrate weight transfer and balance on mats and apparatus by smoothly transitioning between combinations of traveling and rolling.
Examples: log roll, straddle forward roll, cartwheel
6. Apply appropriate skills in sport modified games.
Examples: dribbling, serving, shooting, punting

Cognitive Development

7. Identify cue words and terms associated with punting and fielding.
8. Describe relationships among strength, flexibility, balance, and coordination in successfully executing physical activities.
9. Identify basic rules, player positions, and offensive and defensive strategies in organized games and in sport modified games.

Social Development

10. Explain good sportsmanship techniques for use in settling disputes. Examples:
remaining calm, controlling voice level, listening to all points of view
11. Explain physical activity and safety benefits of exercising with a partner.
Examples: promoting adherence to regimen, reducing safety hazards

Physical Activity and Health

12. Describe how aerobic exercise affects the efficiency and longevity of the heart and lungs.
13. Categorize physical activities according to their most beneficial health-related fitness component.
14. Define the four components of the frequency, intensity, time, and type (F.I.T.T.) principle as they relate to a successful fitness program.

SIXTH GRADE

The sixth-grade curriculum is designed to offer students opportunities to engage in a wide range of physical activities that help refine skills and promote enjoyment. Sixth-grade students experience numerous physical, social, and cognitive changes. They are moving from childhood to adolescence and are beginning to take more responsibility for their actions.

The sixth-grade instructional environment allows the early adolescent to experience positive, challenging, and enjoyable physical activity while learning more about its benefits and importance. Skill refinement is accomplished through a variety of modified sports, games, rhythms, gymnastics, and other physical activities. Sixth-grade students utilize evaluation from a variety of sources to improve performance. Students also learn to identify and apply principles of practice and conditioning, recognize general movement principles, and use basic offensive and defensive strategies as they apply to modified sports.

Skill Development

Students will:

1. Demonstrate rope-jumping and original dance routines that incorporate varying lengths, skill sequences, and musical accompaniments.
2. Combine a variety of skills into sequenced routines.
Example: combining traveling, rolling, balancing, and transferring weight into smooth sequences while altering speed, direction, and flow
 - Integrating fundamental movement and specialized skills into student-choreographed routines Example: rhythmic, gymnastic, ball, and jump routines
3. Demonstrate dribbling, shooting, and striking skills.
Examples: dribbling to avoid the ball being stolen, shooting with consistency and correct form, striking for direction and height
4. Demonstrate forehand and backhand striking skills.
Examples: using forehand and overhand clear in badminton, using forehand and backhand stroke in tennis

Cognitive Development

5. Identify rules and regulations for a variety of sports and lifetime activities.
6. Explain the importance of repetition and practice as a means for skill improvement.
7. Modify physical activities, games, and sports to meet specified criteria. Example: modification of games for personal enjoyment

Social Development

8. Explain sport-specific etiquette and good sportsmanship for team, individual, and dual sports.
9. Demonstrate positive social interactions in situations that include members of different genders, cultures, ethnicities, abilities, and disabilities.

Physical Activity and Health

10. Describe progress toward achieving personal fitness goals for each of the health-related fitness components. Example:
tracking progress on personal logs
11. Analyze exercise and heart rate data to determine adjustments to health fitness plans.
12. Identify possible injuries resulting from improper exercise routines.
 - Demonstrating proper warm-up and cool-down techniques
13. Describe the structure and function of the muscular and skeletal systems as they relate to physical performance.
Examples: muscles pulling on bones causing movement, muscles working in pairs, muscles working by contracting and relaxing

SEVENTH GRADE

Seventh-grade students continue to experience a wide range of physical and emotional changes. As they mature, they are able to analyze fundamental and manipulative skills and to understand concepts and principles related to health-enhancing activity.

The seventh-grade physical education classroom environment allows for positive experiences, group and cooperative challenges, and exposure to a variety of physical activities. Skill acquisition and refinement continue through the contexts of regulation and modified sports, games, rhythms, gymnastics, and physical activities. Students recognize physical activity as a positive opportunity for social and group interaction and develop necessary cooperative and competitive behaviors.

Skill Development

Students will:

1. Apply coordinated movements, strategies, and rules to achieve success in a variety of sports and activities.
2. Demonstrate strategic positioning for offense and defense in game situations.
Examples: staying between opponent and goal, moving between opponent and ball
3. Demonstrate dances used for social and recreational enjoyment and physical fitness enhancement.
4. Demonstrate a sequence of balancing skills by traveling on apparatus while working cooperatively with a partner to create a balance sequence. Examples: balancing on mats, walking a line on the floor
5. Demonstrate relaxation and stress reduction exercises.
6. Demonstrate offensive skills, including pick, fake, and screen, for a variety of team sports.

Cognitive Development

7. Identify appropriate drills and repetitions to improve performance. Example: using nondominant hand or foot
8. Describe the concept of effort as it relates to improvement of skill execution.
Example: slowing or accelerating skill execution to increase success
9. Analyze peer skill performance for efficiency in sport and recreational activities.
10. Explain differences between legal and illegal behaviors in sports.
Examples: National Collegiate Athletic Association rules, Alabama High School Athletic Association rules

Social Development

11. Apply methods for communicating with confrontational opponents.
 - Practicing social courtesies in group activities
12. Demonstrate elements, including sport competency, literacy, and enthusiasm, needed to accomplish a team goal in competitive and cooperative environments.
Examples: remaining on task in a group activity, applying problem-solving skills, practicing safety procedures

Physical Activity and Health

13. Identify factors that can be manipulated to achieve an overload in muscular strength and cardiorespiratory endurance.
Examples: muscular strength—repetitions, sets, recovery time
 cardiorespiratory endurance—frequency, intensity, time, type
14. Explain correlations among nutrition, exercise, and rest in the development of a healthy lifestyle.

EIGHTH GRADE

Eighth-grade students have an increased ability to synthesize information regarding skill development and enhanced performance. They have an advanced knowledge and understanding of motor skills and are able to exhibit competencies in a variety of movement forms and physical activities.

In eighth grade, students are provided with a broad range of opportunities that allow them to participate in a variety of physical experiences, including regulation and modified sports, games, rhythms, gymnastics, and other physical activities. These experiences offer students a positive outlet for competition with peers and a means of gaining the respect and recognition of others. Physical activities provide students with confidence as they take steps toward independence and a healthy lifestyle.

Skill Development

Students will:

1. Demonstrate skills utilized in lifetime health-enhancing activities.
Examples: throwing a flying disk, hitting a tennis ball, putting a golfball
2. Demonstrate aerobic movement skills and the performance of original dance routines.
 - Choreographing routines
 - Teaching student-created routines
3. Demonstrate combinations of balancing and supporting skills.
4. Demonstrate skills used in individual, dual, and team sports.
Examples: basketball, flag football, soccer, softball, volleyball, tennis, badminton
5. Demonstrate skills associated with adventure, outdoor, and recreational activities. Examples: orienteering, skating, cycling, walking, hiking
6. Demonstrate player-to-player defensive strategy skills.

Cognitive Development

7. Identify rules, regulations, tactics, strategies, and rituals utilized in individual, dual, and team sports.
8. Apply movement concepts to sport, dance, gymnastics, recreational skill performances, and other physical activities.
Example: utilizing flowing sequences with intentional changes in direction, speed, and flow

9. Summarize research findings of at least one local, national, or international game for its history, terminology, rules, and basic skills.
Example: using the Internet or other research resources to produce portfolios, videos, slide presentations, photographs, or scrapbooks

Social Development

10. Solve problems in physical activity settings by identifying cause and potential solutions.
Example: describing appropriate responses to an unfair call made by an official
11. Describe how recognizing opposing opinions and priorities, including displaying willingness to compromise, apply to teamwork and goal achievement.
12. Apply positive reinforcement to enhance peer physical performance during physical activity.

Physical Activity and Health

13. Explain long-term physiological and psychological benefits resulting from regular participation in physical activity.
14. Identify the role of exercise in stress reduction.
15. Apply the F.I.T.T. principle to an individualized fitness plan.
16. Design a personalized fitness plan.

Modern Languages

Level I

Level I modern languages content standards provide students the opportunity to begin the study of another language while introducing them to the study of other cultures. Basic pronunciation, vocabulary, grammar, and culture are included in the course. Acquisition of Level I knowledge and skills helps students understand their own language and culture, develop insight into cultures other than their own, and participate more fully in the global community.

Communication

Students will:

1. Recognize target language words and phrases spoken in context.
Examples: basic commands, classroom objects, cognates
 - Using the target language in oral and written form in the present time frame, including salutations, farewells, expressions of courtesy, likes, dislikes, feelings, emotions, agreement, disagreement, requests, descriptions, sequenced information, and cultural references where appropriate to interact in a variety of situations
 - Responding to basic instructions and questions
2. Interpret basic oral and written information in the target language on a variety of topics in the present time frame.
 - Identifying main ideas with some details
 - Guessing words and phrases based on context
3. Present oral and written information in the target language using familiar vocabulary and correct structure in the present time frame.
 - Expressing main ideas from print and nonprint materials
 - Creating brief oral presentations and short written paragraphs
 - Telling basic information about self and others
Examples: short autobiographies, descriptions of daily and leisure activities
4. Read aloud proverbs, short poems, and songs in the target language with appropriate pronunciation and intonation.

Cultures

5. Use appropriate target language vocabulary and nonverbal behavior in a variety of social situations and familiar settings.
Examples: verbal—greetings, voice inflections; nonverbal—
personal space

6. Identify tangible and intangible products of a target culture, including symbols and expressive art forms.
Examples: tangible—food, clothing, paintings, flags; intangible—national anthems, religion

Connections

7. Identify other subject-area topics that relate to topics discussed in the target language class.
Example: cultural influence of explorers and settlers in various regions of the world
- Locating major countries, cities, and geographical features of places where the target language is spoken
 - Identifying examples of vocabulary words and phrases, proverbs, and symbols from the target language that relate to other disciplines Examples: currency symbols, capitalization and punctuation, dates

Comparisons

8. Identify similarities and differences between words in the target language and in English, including pronunciation, intonation, stress patterns, and simple written conventions of language.
9. Compare holidays and celebrations of a target culture with those of the United States.

Communities

10. Identify typical activities and events of a target culture.
Examples: celebrations, concerts, exhibits
11. Identify situations and resources in which target language skills and cultural knowledge may be applied beyond the classroom setting.
Examples: situations—hospital patient and medical staff relationships, international business meetings, courtroom hearings;
resources—news media, entertainment, technology, international guests

CAREER PREPAREDNESS

The Career Preparedness course focuses on three integrated areas of instruction—academic planning and career development, financial literacy, and technology. Course content ranges from college and career preparation to computer literacy skills to ways to manage personal finances and reduce personal risk. The area of technology is designed to be interwoven throughout course instruction. Mastery of the content standards provides a strong foundation for student acquisition of the skills, attitudes, and knowledge that enables them to achieve success in school, at work, and across the life span.

As part of preparing students to be college- and career-ready, this course also equips them with the skills needed for business and industry, continuing education, and lifelong learning. Acquisition of these skills is achieved by incorporating content and strategies that can easily allow students to meet the required 20-hour online experience as defined in the Alabama State Department of Education’s *High School Distance Learning: Online/Technology Enhanced Course or Experience Guidance* document.

Career Preparedness is a one-credit course required for graduation that can be taught in Grades 9-12; however, it is recommended that students take the course in Grade 9. This course may be taught as two one-half credit courses consisting of Career Preparedness A and Career Preparedness B. Standards 1, 2, 2a, 3, 3a, 3b, 3c, 6, 6a, 8, 9, 10, 11, 11a, 12, 12a, 12b, 12c, 12d, and 12e must be taught in Career Preparedness A. Standards 2b, 2c, 4, 4a, 4b, 4c, 4d, 5, 7, 7a, 7b, 13, 14, 14a, 15, 15a, 15b, 15c, 15d, 16, 16a, 16b, 17, 17a, 17b, 18, 18a, 19, 20, 20a, 21, 21a, 21b, 21c, 21d, 22, 22a, 22b, and 23 must be taught in Career Preparedness B. Career Preparedness A is the prerequisite to Career Preparedness B.

Students will:

Personal Decision Making

1. Demonstrate knowledge of a systematic approach to a decision-making process (specifically, opportunity costs and trade-offs), including factors regarding academic planning and career development, financial literacy, and technology.

Example: decision-making process steps—define the problem, brainstorm, list alternatives, evaluate alternatives and identify consequences, propose a solution

Academic Planning and Career Development

2. Understand the effect of workplace behaviors.
 - a. Examine appropriate workplace behaviors, including attitude, work ethic, responsibility, dependability, punctuality, integrity, time management, effort, adherence to dress code, communication (written, verbal, and nonverbal), teamwork, and other workplace etiquette.
 - b. Identify inappropriate workplace behaviors, including violence and sexual harassment and procedures for addressing such behaviors.
 - c. Recognize the importance of and capitalize on diversity in the workplace.

3. Analyze personal skills, interests, and abilities and relate them to current career opportunities.
 - a. Participate in assessments that identify personal areas of interest and aptitude, including utilizing results to develop a four-year high school educational plan.
 - b. Explore individual career options from the 16 National Career Clusters to examine specific job descriptions, requirements, salaries, and employment outlooks.
 - c. Identify safety and health standards in the workplace for daily procedures, emergency procedures, equipment/tools, dress, use of technology, and work area maintenance.
4. Determine the correlation of personal preference, education, and training to the demands of the workforce.
 - a. Select a personal career goal based upon results of interest and aptitude assessments.
 - b. Investigate employee benefits and incentives related to identified career choices. Examples: medical insurance options, retirement benefits, life insurance options, long- and short-term disability insurance options
 - c. Calculate net pay from a given gross salary by subtracting required and non-required deductions.
 - d. Utilize advanced database features (i.e., merging, sorting, filtering, formulas) to examine the effect of career choice on lifestyle, including how interest, ability, and educational achievement relate to the attainment of personal, social, educational, and career goals.
5. Investigate the postsecondary/higher education admissions process, including completing admission and financial aid applications (e.g., Free Application for Federal Student Aid (FAFSA), grants, loans, scholarships, personal financing).
6. Examine the employment process, including searching for a job, filling out a job application, writing a résumé, developing and practicing interview skills, and completing required employment forms (e.g., W-4, I-9).
 - a. Utilize word processing software to demonstrate professional writing skills by producing and editing business and personal correspondence documents.
7. Generate an electronic portfolio using digital tools (e.g., Webpage, wikis, blogs, podcast), including a cover letter; a current résumé; a completed job application; interest, aptitude, and achievement assessment results; curriculum samples (e.g., academic research, educational projects); four-year high school educational plan; education/career preparedness checklist; and other examples of academic and career preparedness achievements (e.g., student organizations, club memberships, honors, credentials, certificates, awards, community service experiences, recommendations).
 - a. Utilize advanced features of word processing (e.g., outlining; developing forms; applying tracking changes, hyperlinking, mailmerging).
 - b. Create presentations using effective communication skills and advanced features of multimedia, including photo, video, and audio editing.

Technology Skill Applications

8. Diagnose problems with hardware, software, and advanced network systems.
Examples: printer, projector, power supply, task manager, network connectivity
9. Demonstrate advanced technology skills, including compressing, converting, importing, exporting, backing up files, and transferring data among applications.

10. Compare functions of various operating systems. Examples:
Windows, Mac OS X, Linux, Android, iOS
11. Analyze cultural, social, economic, environmental, and political effects, and trends of technology to assess emerging technologies and forecast innovations.
 - a. Demonstrate proficiency in the use of emerging technology resources, including social networking and other electronic communications (e.g., desktop conferencing, mobile technology, listservs, blogs, virtual reality, online file sharing).
12. Demonstrate appropriate digital citizenship through safe, ethical, and legal use of technology systems and digital content.
 - a. Explain consequences of illegal and unethical use of technology systems and digital content. Examples:
cyberbullying, plagiarism
 - b. Interpret copyright laws and policies with regard to ownership and use of digital content.
 - c. Explain the implications of creating and maintaining a positive digital footprint.
 - d. Critique Internet and digital information for validity, reliability, accuracy, bias, and current relevance.
 - e. Cite sources of digital content using a style manual.
Examples: Modern Language Association (MLA), American Psychological Association (APA)
13. Utilize an online learning-management system to engage in collaborative learning projects, discussions, and assessments beyond the traditional classroom that are goal-oriented, focused, project-based, and inquiry-oriented.
Examples: Moodle, Edmodo, Blackboard, Canvas
14. Explain specific steps that consumers can take to minimize exposure to identity theft, fraudulent schemes, unethical sales practices, and exorbitant service fees.
 - a. Identify online safety precautions, including data-encryption, password strength, clearing browser cache, firewalls, and antivirus software.

Managing Finances and Budgeting

15. Develop a plan for managing earning, spending, saving, and giving using spreadsheets, online resources, or commercial software.
 - a. Create a budget, net worth statement, and income expense statement using a spreadsheet.
 - b. Utilize spreadsheet features, including formulas, functions, sorting, filtering, charts, and graphs.
 - c. Identify types of income other than wages, including rent, interest, and profit earned from various resources.
 - d. Evaluate various methods for acquiring goods and making major purchases.
Examples: borrowing, renting, leasing, paying cash

16. Evaluate the effect of personal preferences, advertising, marketing, peer pressure, and family history on consumer choices and decision making in the marketplace.
 - a. Compare goods and services to determine best value, including sales tax, tips, coupons, discounts, product quality, and unit pricing.
 - b. Explore how to use different payment methods, including cash, debit card, credit card, online payments, mobile devices, checks, payroll cards, layaway plans, and automatic bank deductions.

Saving and Investing

17. Distinguish differences between the purpose of saving and the objectives associated with investing.
 - a. Explain how using the principles of compound interest and the Rule of 72 in investing builds wealth to meet financial goals.
 - b. Evaluate various ways to buy and sell investments, including mutual funds, exchange-traded funds (ETFs), stocks, bonds, certificates of deposit (CDs), real estate, and commodities.

Banking and Financial Institutions

18. Analyze various types of financial institutions.
 - a. Evaluate services and related costs associated with financial institutions in terms of personal banking needs.
Examples: checking and savings accounts, personal checks, cashier checks, overdraft fees
19. Demonstrate how to manage checking and savings accounts, balance bank statements, and use online financial services.

Credit and Debt

20. Determine advantages and disadvantages of using credit.
 - a. Analyze credit card offerings for the effect on personal finances.
Examples: annual percentage rate (APR), grace period, incentive buying, methods of calculating interest, fees
21. Examine why credit ratings and credit reports are important to consumers.
 - a. Explain ways of building and maintaining a good credit score.
 - b. Determine the implication of entering into contracts and binding agreements. (e.g. college loans, cell phone contracts, car loans, collateral loans, passbook loans, mortgages).
 - c. Describe legal and illegal types of credit that carry high interest rates, including payday loans, rent-to-buy agreements, and loan-sharking.
 - d. Assess the implications of bankruptcy, including Chapter 7, Chapter 11, and Chapter 13.

Risk Management and Insurance

22. Determine the type of insurance associated with different types of risks, including automobile, personal and professional liability, home, apartment, property, health, life, long-term care, and disability.
 - a. Analyze factors that reduce the cost of insurance.
 - b. Identify perils that are insurable. Examples: injury, loss, destruction

23. Develop a plan for financial security in the event of disaster, including secure storage of financial records and personal documents, available cash reserve, household inventory list, and medical records retention.

The ACT College Readiness Standards
Writing

PRODUCTION OF WRITING

Score Range	PRODUCTION OF WRITING Topic Development in Terms of Purpose and Focus (TOD)
13–15	TOD 201. Delete material because it is obviously irrelevant in terms of the topic of the essay
16–19	TOD 301 Delete material because it is obviously irrelevant in terms of the focus of the essay TOD 302. Identify the purpose of a word or phrase when the purpose is simple (e.g., identifying a person, defining a basic term, using common descriptive adjectives) TOD 303. Determine whether a simple essay has met a straightforward goal
20–23	TOD 401. Determine relevance of material in terms of the focus of the essay TOD 402. Identify the purpose of a word or phrase when the purpose is straightforward (e.g., describing a person, giving examples) TOD 403. Use a word, phrase, or sentence to accomplish a straightforward purpose (e.g., conveying a feeling or attitude)
24–27	TOD 501. Determine relevance of material in terms of the focus of the paragraph TOD 502. Identify the purpose of a word, phrase, or sentence when the purpose is fairly straightforward (e.g., identifying traits, giving reasons, explaining motivations) TOD 503. Determine whether an essay has met a specified goal TOD 504. Use a word, phrase, or sentence to accomplish a fairly straightforward purpose (e.g., sharpening an essay’s focus, illustrating a given statement)
28–32	TOD 601. Determine relevance when considering material that is plausible but potentially irrelevant at a given point in the essay TOD 602. Identify the purpose of a word, phrase, or sentence when the purpose is subtle (e.g., supporting a later point, establishing tone) or when the best decision is to delete the text in question TOD 603. Use a word, phrase, or sentence to accomplish a subtle purpose (e.g., adding emphasis or supporting detail, expressing meaning through connotation)
33–36	TOD 701. Identify the purpose of a word, phrase, or sentence when the purpose is complex (e.g., anticipating a reader’s need for background information) or requires a thorough understanding of the paragraph and essay TOD 702. Determine whether a complex essay has met a specified goal TOD 703. Use a word, phrase, or sentence to accomplish a complex purpose, often in terms of the focus of the essay

Organization, Unity, and Cohesion

Score Range	PRODUCTION OF WRITING Organization, Unity, and Cohesion (ORG)
13–15	ORG 201. Determine the need for transition words or phrases to establish time relationships in simple narrative essays (e.g., <i>then</i> , <i>this time</i>)

16–19	ORG 301. Determine the most logical place for a sentence in a paragraph ORG 302. Provide a simple conclusion to a paragraph or essay (e.g., expressing one of the essay’s main ideas)
20–23	ORG 401. Determine the need for transition words or phrases to establish straightforward logical relationships (e.g., <i>first, afterward, in response</i>) ORG 402. Determine the most logical place for a sentence in a straightforward essay ORG 403. Provide an introduction to a straightforward paragraph ORG 404. Provide a straightforward conclusion to a paragraph or essay (e.g., summarizing an essay’s main idea or ideas) ORG 405. Rearrange the sentences in a straightforward paragraph for the sake of logic
24–27	ORG 501. Determine the need for transition words or phrases to establish subtle logical relationships within and between sentences (e.g., <i>therefore, however, in addition</i>) ORG 502. Provide a fairly straightforward introduction or conclusion to or transition within a paragraph or essay (e.g., supporting or emphasizing an essay’s main idea) ORG 503. Rearrange the sentences in a fairly straightforward paragraph for the sake of logic ORG 504. Determine the best place to divide a paragraph to meet a particular rhetorical goal ORG 505. Rearrange the paragraphs in an essay for the sake of logic
28–32	ORG 601. Determine the need for transition words or phrases to establish subtle logical relationships within and between paragraphs ORG 602. Determine the most logical place for a sentence in a fairly complex essay ORG 603. Provide a subtle introduction or conclusion to or transition within a paragraph or essay (e.g., echoing an essay’s theme or restating the main argument) ORG 604. Rearrange the sentences in a fairly complex paragraph for the sake of logic and coherence
33–36	ORG 701. Determine the need for transition words or phrases, basing decisions on a thorough understanding of the paragraph and essay ORG 702. Provide a sophisticated introduction or conclusion to or transition within a paragraph or essay, basing decisions on a thorough understanding of the paragraph and essay (e.g., linking the conclusion to one of the essay’s main images)

Knowledge of Language

Score Range	KNOWLEDGE OF LANGUAGE Knowledge of Language (KLA)
13–15	KLA 201. Revise vague, clumsy, and confusing writing that creates obvious logic problems
16–19	KLA 301. Delete obviously redundant and wordy material KLA 302. Revise expressions that deviate markedly from the style and tone of the essay
20–23	KLA 401. Delete redundant and wordy material when the problem is contained within a single phrase (e.g., “alarmingly startled,” “started by reaching the point of beginning”) KLA 402. Revise expressions that deviate from the style and tone of the essay KLA 403. Determine the need for conjunctions to create straightforward logical links between clauses KLA 404. Use the word or phrase most appropriate in terms of the content of the sentence when the

	vocabulary is relatively common
24–27	<p>KLA 501. Revise vague, clumsy, and confusing writing</p> <p>KLA 502. Delete redundant and wordy material when the meaning of the entire sentence must be considered</p> <p>KLA 503. Revise expressions that deviate in subtle ways from the style and tone of the essay</p> <p>KLA 504. Determine the need for conjunctions to create logical links between clauses</p> <p>KLA 505. Use the word or phrase most appropriate in terms of the content of the sentence when the vocabulary is uncommon</p>
28–32	<p>KLA 601. Revise vague, clumsy, and confusing writing involving sophisticated language</p> <p>KLA 602. Delete redundant and wordy material that involves fairly sophisticated language (e.g., “the outlook of an aesthetic viewpoint”) or that sounds acceptable as conversational English</p> <p>KLA 603. Determine the need for conjunctions to create subtle logical links between clauses</p> <p>KLA 604. Use the word or phrase most appropriate in terms of the content of the sentence when the vocabulary is fairly sophisticated</p>
33–36	<p>KLA 701. Delete redundant and wordy material that involves sophisticated language or complex concepts or where the material is redundant in terms of the paragraph or essay as a whole</p> <p>KLA 702. Use the word or phrase most appropriate in terms of the content of the sentence when the vocabulary is sophisticated</p>

Sentence Structure and Formation

Score Range	<p>CONVENTIONS OF STANDARD ENGLISH GRAMMAR, USAGE, AND PUNCTUATION</p> <p>Sentence Structure and Formation (SST)</p>
13–15	<p>SST 201. Determine the need for punctuation or conjunctions to join simple clauses</p> <p>SST 202. Recognize and correct inappropriate shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences</p>
16–19	<p>SST 301. Determine the need for punctuation or conjunctions to correct awkward- sounding fragments and fused sentences as well as obviously faulty subordination and coordination of clauses</p> <p>SST 302. Recognize and correct inappropriate shifts in verb tense and voice when the meaning of the entire sentence must be considered</p>
20–23	<p>SST 401. Recognize and correct marked disturbances in sentence structure (e.g., faulty placement of adjectives, participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers, lack of parallelism within a simple series of verbs)</p>
24–27	<p>SST 501. Recognize and correct disturbances in sentence structure (e.g., faulty placement of phrases, faulty coordination and subordination of clauses, lack of parallelism within a simple series of phrases)</p> <p>SST 502. Maintain consistent and logical verb tense and pronoun person on the basis of the preceding clause or sentence</p>
28–32	<p>SST 601.</p> <p>SST 602.</p> <p>Recognize and correct subtle disturbances in sentence structure (e.g., dangles where the intended meaning is clear but the sentence is ungrammatical, faulty subordination and</p>

	coordination of clauses in long or involved sentences) Maintain consistent and logical verb tense and voice and pronoun person on the basis of the paragraph or essay as a whole
33–36	SST 701. Recognize and correct very subtle disturbances in sentence structure (e.g., weak conjunctions between independent clauses, run-ons that would be acceptable in conversational English, lack of parallelism within a complex series of phrases or clauses)

Usage Conventions

Score Range	CONVENTIONS OF STANDARD ENGLISH GRAMMAR, USAGE, AND PUNCTUATION Usage Conventions (USG)
13–15	USG 201. Form the past tense and past participle of irregular but commonly used verbs USG 202. Form comparative and superlative adjectives
16–19	USG 301. Determine whether an adjective form or an adverb form is called for in a given situation USG 302. Ensure straightforward subject-verb agreement USG 303. Ensure straightforward pronoun-antecedent agreement USG 304. Use idiomatically appropriate prepositions in simple contexts USG 305. Use the appropriate word in frequently confused pairs (e.g., <i>there</i> and <i>their</i> , <i>past</i> and <i>passed</i> , <i>led</i> and <i>lead</i>)
20–23	USG 401. Use the correct comparative or superlative adjective or adverb form depending on context (e.g., “He is the oldest of my three brothers”) USG 402. Ensure subject-verb agreement when there is some text between the subject and verb USG 403. Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., <i>long for</i> , <i>appeal to</i>) USG 404. Recognize and correct expressions that deviate from idiomatic English
24–27	USG 501. Form simple and compound verb tenses, both regular and irregular, including forming verbs by using <i>have</i> rather than <i>of</i> (e.g., <i>would have gone</i> , not <i>would of gone</i>) USG 502. Ensure pronoun-antecedent agreement when the pronoun and antecedent occur in separate clauses or sentences USG 503. Recognize and correct vague and ambiguous pronouns
28–32	USG 601. Ensure subject-verb agreement in some challenging situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun) USG 602. Correctly use reflexive pronouns, the possessive pronouns <i>its</i> and <i>your</i> , and the relative pronouns <i>who</i> and <i>whom</i> USG 603. Use the appropriate word in less-common confused pairs (e.g., <i>allude</i> and <i>elude</i>)
33–36	USG 701. Ensure subject-verb agreement when a phrase or clause between the subject and verb suggests a different number for the verb USG 702. Use idiomatically and contextually appropriate prepositions in combination with verbs in situations involving sophisticated language or complex concepts

Punctuation Conventions (PUN)

Score Range	CONVENTIONS OF STANDARD ENGLISH GRAMMAR, USAGE, AND PUNCTUATION Punctuation Conventions (PUN)
13–15	PUN 201. Delete commas that create basic sense problems (e.g., between verb and direct object)
16–19	PUN 301. Delete commas that markedly disturb sentence flow (e.g., between modifier and modified element) PUN 302. Use appropriate punctuation in straightforward situations (e.g., simple items in a series)
20–23	PUN 401. Delete commas when an incorrect understanding of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) PUN 402. Delete apostrophes used incorrectly to form plural nouns PUN 403. Use commas to avoid obvious ambiguity (e.g., to set off a long introductory element from the rest of the sentence when a misreading is possible) PUN 404. Use commas to set off simple parenthetical elements
24–27	PUN 501. Delete commas in long or involved sentences when an incorrect understanding of the sentence suggests a pause that should be punctuated (e.g., between the elements of a compound subject or compound verb joined by <i>and</i>) PUN 502. Recognize and correct inappropriate uses of colons and semicolons PUN 503. Use punctuation to set off complex parenthetical elements PUN 504. Use apostrophes to form simple possessive nouns
28–32	PUN 603. PUN 604. PUN 601. Use commas to avoid ambiguity when the syntax or language is sophisticated (e.g., to set off a complex series of items) PUN 602. Use punctuation to set off a nonessential/nonrestrictive appositive or clause PUN 603. Use apostrophes to form possessives, including irregular plural nouns PUN 604. Use a semicolon to link closely related independent clauses
33–36	PUN 701. Delete punctuation around essential/restrictive appositives or clauses PUN 702. Use a colon to introduce an example or an elaboration

The ACT College Readiness Standards
Reading

CLOSE READING

Score Range	KEY IDEAS AND DETAILS Close Reading (CLR)
13–15	CLR 201. Locate basic facts (e.g., names, dates, events) clearly stated in a passage CLR 202. Draw simple logical conclusions about the main characters in somewhat challenging literary narratives
16–19	CLR 301. Locate simple details at the sentence and paragraph level in somewhat challenging passages CLR 302. Draw simple logical conclusions in somewhat challenging passages
20–23	CLR 401. Locate important details in somewhat challenging passages CLR 402. Draw logical conclusions in somewhat challenging passages CLR 403. Draw simple logical conclusions in more challenging passages

	CLR 404. Paraphrase some statements as they are used in somewhat challenging passages
24–27	CLR 501. Locate and interpret minor or subtly stated details in somewhat challenging passages CLR 502. Locate important details in more challenging passages CLR 503. Draw subtle logical conclusions in somewhat challenging passages CLR 504. Draw logical conclusions in more challenging passages CLR 505. Paraphrase virtually any statement as it is used in somewhat challenging passages CLR 506. Paraphrase some statements as they are used in more challenging passages
28–32	CLR601. Locate and interpret minor or subtly stated details in more challenging passages CLR 602. Locate important details in complex passages CLR 603. Draw subtle logical conclusions in more challenging passages CLR 604. Draw simple logical conclusions in complex passages CLR605. Paraphrase virtually any statement as it is used in more challenging passages
33–36	CLR 701. Locate and interpret minor or subtly stated details in complex passages CLR 702. Locate important details in highly complex passages CLR 703. Draw logical conclusions in complex passages CLR 704. Draw simple logical conclusions in highly complex passages CLR 705. Draw complex or subtle logical conclusions, often by synthesizing information from different portions of the passage CLR 706. Paraphrase statements as they are used in complex passages

Central Ideas, Themes, and Summaries

Score Range	KEY IDEAS AND DETAILS Central Ideas, Themes, and Summaries (IDT)
13–15	IDT 201. Identify the topic of passages and distinguish the topic from the central idea or theme
16–19	IDT 301. Identify a clear central idea in straightforward paragraphs in somewhat challenging literary narratives
20–23	IDT 401. Infer a central idea in straightforward paragraphs in somewhat challenging literary narratives IDT 402. Identify a clear central idea or theme in somewhat challenging passages or their paragraphs IDT 403. Summarize key supporting ideas and details in somewhat challenging passages
24–27	IDT 501. Infer a central idea or theme in somewhat challenging passages or their paragraphs IDT 502. Identify a clear central idea or theme in more challenging passages or their paragraphs IDT 503. Summarize key supporting ideas and details in more challenging passages
28–32	IDT 601. Infer a central idea or theme in more challenging passages or their paragraphs IDT 602. Summarize key supporting ideas and details in complex passages
33–36	IDT 701. Identify or infer a central idea or theme in complex passages or their paragraphs IDT 702. Summarize key supporting ideas and details in highly complex passages

Relationships

Score Range	KEY IDEAS AND DETAILS Relationships (REL)
13–15	REL201. Determine when (e.g.,first,last,before,after) an event occurs in somewhat challenging passages REL 202. Identify simple cause-effect relationships within a single sentence in a passage
16–19	REL 301. Identify clear comparative relationships between main characters in somewhat challenging literary narratives REL 302. Identify simple cause-effect relationships within a single paragraph in somewhat challenging literary narratives
20–23	REL 401. Order simple sequences of events in somewhat challenging literary narratives REL 402. Identify clear comparative relationships in somewhat challenging passages REL 403. Identify clear cause-effect relationships in somewhat challenging passages
24–27	REL 501. Order sequences of events in somewhat challenging passages REL 502. Understand implied or subtly stated comparative relationships in somewhat challenging passages REL 503. Identify clear comparative relationships in more challenging passages REL 504. Understand implied or subtly stated cause-effect relationships in somewhat challenging passages REL 505. Identify clear cause-effect relationships in more challenging passages
28–32	REL 601. Order sequences of events in more challenging passages REL 602. Understand implied or subtly stated comparative relationships in more challenging passages REL 603. Identify clear comparative relationships in complex passages REL 604. Understand implied or subtly stated cause-effect relationships in more challenging passages REL 605. Identify clear cause-effect relationships in complex passages
33–36	REL 701. Order sequences of events in complex passages REL 702. Understand implied or subtly stated comparative relationships in complex passages REL 703. Identify clear comparative relationships in highly complex passages REL 704. Understand implied or subtly stated cause-effect relationships in complex passages REL 705. Identify clear cause-effect relationships in highly complex passages

Word Meanings and Word Choice

Score Range	CRAFT AND STRUCTURE Word Meanings and Word Choice (WME)
13–15	WME201. Understand the implication of a familiar word or phrase and of simple descriptive language
16–19	WME301. Analyze how the choice of a specific word or phrase shapes meaning or tone in somewhat challenging passages when the effect is simple WME302. Interpret basic figurative language as it is used in a passage
20–23	WME401. Analyze how the choice of a specific word or phrase shapes meaning or tone in somewhat challenging passages WME402. Interpret most words and phrases as they are used in somewhat challenging passages, including determining technical, connotative, and figurative meanings
24–27	WME501. Analyze how the choice of a specific word or phrase shapes meaning or tone in somewhat

	<p>challenging passages when the effect is subtle</p> <p>WME502. Analyze how the choice of a specific word or phrase shapes meaning or tone in more challenging passages</p> <p>WME503. Interpret virtually any word or phrase as it is used in somewhat challenging passages, including determining technical, connotative, and figurative meanings</p> <p>WME504. Interpret most words and phrases as they are used in more challenging passages, including determining technical, connotative, and figurative meanings</p>
28–32	<p>WME601. Analyze how the choice of a specific word or phrase shapes meaning or tone in complex passages</p> <p>WME602. Interpret virtually any word or phrase as it is used in more challenging passages, including determining technical, connotative, and figurative meanings</p> <p>WME 603. Interpret words and phrases in a passage that makes consistent use of figurative, general academic, domain-specific, or otherwise difficult language</p>
33–36	<p>WME701. Analyze how the choice of a specific word or phrase shapes meaning or tone in passages when the effect is subtle or complex</p> <p>WME 702. Interpret words and phrases as they are used in complex passages, including determining technical, connotative, and figurative meanings</p> <p>WME 703. Interpret words and phrases in a passage that makes extensive use of figurative, general academic, domain-specific, or otherwise difficult language</p>

Text Structure

Score Range	CRAFT AND STRUCTURE Text Structure (TST)
13–15	TST201. Analyze how one or more sentences in passages relate to the whole passage when the function is stated or clearly indicated
16–19	<p>TST 301. Analyze how one or more sentences in somewhat challenging passages relate to the whole passage when the function is simple</p> <p>TST 302. Identify a clear function of straightforward paragraphs in somewhat challenging literary narratives</p>
20–23	<p>TST 401. Analyze how one or more sentences in somewhat challenging passages relate to the whole passage</p> <p>TST 402. Infer the function of straightforward paragraphs in somewhat challenging literary narratives</p> <p>TST 403. Identify a clear function of paragraphs in somewhat challenging passages</p> <p>TST 404. Analyze the overall structure of somewhat challenging passages</p>
Score Range	CRAFT AND STRUCTURE Text Structure (TST)
24–27	<p>TST 501. Analyze how one or more sentences in somewhat challenging passages relate to the whole passage when the function is subtle</p> <p>TST 502. Analyze how one or more sentences in more challenging passages relate to the whole passage</p> <p>TST 503. Infer the function of paragraphs in somewhat challenging passages</p> <p>TST 504. Identify a clear function of paragraphs in more challenging passages</p> <p>TST 505. Analyze the overall structure of more challenging passages</p>
28–32	<p>TST601. Analyze how one or more sentences in complex passages relate to the whole passage</p> <p>TST 602. Infer the function of paragraphs in more challenging passages</p> <p>TST 603. Analyze the overall structure of complex passages</p>
33–36	TST701. Analyze how one or more sentences in passages relate to the whole passage when the function is subtle or

	complex TST 702. Identify or infer the function of paragraphs in complex passages TST 703. Analyze the overall structure of highly complex passages
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Purpose and Point of View

Score Range	CRAFT AND STRUCTURE Purpose and Point of View (PPV)
13–15	PPV201. Recognize a clear intent of an author or narrator in somewhat challenging literary narratives
16–19	PPV301. Recognize a clear intent of an author or narrator in somewhat challenging passages
20–23	PPV 401. Identify a clear purpose of somewhat challenging passages and how that purpose shapes content and style PPV 402. Understand point of view in somewhat challenging passages
24–27	PPV 501. PPV 502. PPV 503. Infer a purpose in somewhat challenging passages and how that purpose shapes content and style Identify a clear purpose of more challenging passages and how that purpose shapes content and style Understand point of view in more challenging passages
28–32	PPV 601. Infer a purpose in more challenging passages and how that purpose shapes content and style PPV 602. Understand point of view in complex passages
33–36	PPV701. Identify or infer a purpose in complex passages and how that purpose shapes content and style PPV 702. Understand point of view in highly complex passages

Arguments

Score Range	INTEGRATION OF KNOWLEDGE AND IDEAS Arguments (ARG)
13–15	ARG201. Analyze how one or more sentences in passages offer reasons for or support a claim when the relationship is clearly indicated
16–19	ARG 301. Analyze how one or more sentences in somewhat challenging passages offer reasons for or support a claim when the relationship is simple
20–23	ARG 401. Analyze how one or more sentences in somewhat challenging passages offer reasons for or support a claim ARG 402. Identify a clear central claim in somewhat challenging passages
24–27	ARG 501. Analyze how one or more sentences in more challenging passages offer reasons for or support a claim ARG 502. Infer a central claim in somewhat challenging passages ARG 503. Identify a clear central claim in more challenging passages
28–32	ARG 601. Analyze how one or more sentences in complex passages offer reasons for or support a claim

	ARG 602. Infer a central claim in more challenging passages
33–36	ARG701. Analyze how one or more sentences in passages offer reasons for or support a claim when the relationship is subtle or complex ARG 702. Identify or infer a central claim in complex passages ARG 703. Identify a clear central claim in highly complex passages

Multiple Texts

Score Range	INTEGRATION OF KNOWLEDGE AND IDEAS Multiple Texts (SYN)
13–15	SYN201. Make simple comparisons between two passages
16–19	SYN301. Make straightforward comparisons between two passages
20–23	SYN401. Draw logical conclusions using information from two literary narratives
Score Range	INTEGRATION OF KNOWLEDGE AND IDEAS Multiple Texts (SYN)
24–27	SYN501. Draw logical conclusions using information from two informational texts
28–32	SYN601. Draw logical conclusions using information from multiple portions of two literary narratives
33–36	SYN701. Draw logical conclusions using information from multiple portions of two informational texts

ATTACHMENT-4

School's Exit Standards for Graduating Students

ALABAMA HIGH SCHOOL GRADUATION REQUIREMENTS

Clarified March 2017

(Alabama Administrative Code 290-3-1-02(8) and (8)(a))

Effective for students in the ninth grade in the 2013-2014 school year, all students shall earn the required credits for the Alabama High School Diploma. A local board of education may establish requirements for receipt of diplomas and endorsements, but any diploma or endorsement shall include the requirements of the Alabama High School Diploma. The Alabama courses of study shall be followed in determining minimum required content in each discipline.

COURSE REQUIREMENTS

Four credits to include:		Credits
English Language Arts	English 9	1
	English 10	1
	English 11	1
	English 12	1
	English Language Arts-credit eligible options may include: Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses.	
English Language Arts Total Credits		4
Three credits to include:		Credits
Mathematics	Algebra I or its equivalent/substitute	1
	Geometry or its equivalent/substitute	1
	Algebra II w/Trigonometry or Algebra II, or its equivalent/substitute	1
	Mathematics-credit eligible options may include: <i>Career and Technical Education/Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses.</i>	
	One credit from:	
	<i>Alabama Course of Study: Mathematics</i> or mathematics-credit eligible courses from Career and Technical Education/Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses.	1
Mathematics Total Credits		4
Two credits to include:		Credits
Science	Biology	1
	A physical science (Chemistry, Physics, Physical Science)	1
	Science-credit eligible options may include: Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses.	
	Two credits from:	
		<i>Alabama Course of Study: Science</i> or science-credit eligible courses from Career and Technical Education/Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses.
Science Total Credits		4
Four credits to include:		Credits
Social Studies*	World History	1
	United States History I	1
	United States History II	1
	United States Government	0.5
	Economics	0.5
	Social Studies-credit eligible options may include: Advanced Placement/International Baccalaureate/postsecondary courses/SDE-approved courses.	
Social Studies Total Credits		4
Physical Education	Lifelong Individualized Fitness Education (LIFE) or one JROTC Credit	1
Health Education		0.5
Career Preparedness		1
Career and Technical Education (CTE) and/or Foreign Language and/or Arts Education		3
Electives		2.5
Total Credits		24

The Alabama High School Graduation requirements provide the opportunity for students to pursue multiple pathways to earn a diploma. Students will have options to pursue areas of interest through expansion of elective credits. Flexibility in course offerings allows for personalized education plans for all students. Though these options allow increased flexibility, high expectations for Alabama students remain the standard. The ninth graders of 2013-2014 are **required** to follow the new graduation requirements. Alabama has one high school diploma, with three pathways: General Education pathway, Essentials pathway, and Alternate Achievement Standards pathway. Only students who complete the requirements for the General Education pathway will count in the United States Department of Education (USDOE) Four-Year Graduation rate for 2017 and beyond. The ALSDE recognizes that you have students who will graduate with an Alabama High School Diploma (AHSD), but will not count in the graduation rate for the USDOE. These students will be considered non-graduates, but will **not** count in the systems drop-out rate.

Each high school student is required to have a four-year plan. It is critical that the plan reflects the student's aspirations for life after high school. Careful consideration should be given to the selection of electives and specific credit-eligible courses to ensure that a student is prepared for postsecondary school, four-year college, and work. Administrators and counselors should continue to review NCAA requirements for prospective student athletes before approving their electives and specific credit eligible courses.

For clarification purposes, the following definition will apply to specific credit eligible courses:

- Credit eligible course – the course is approved as an appropriate replacement, but may not include a 90% match in standards.

The Alabama Department of Education (ALSDE) will continue to expand credit eligible course offerings. Local Education Agencies (LEAs) that would like to have a course considered for a specific credit should follow the process below for approval:

- Locally-developed Career and Technical Education (CTE) courses must be submitted to the CTE Section.
- Locally-developed core courses (Mathematics, English, Science, and Social Studies) must be submitted to the Instructional Services Section.
- Once submitted to either section, a cross-sectional team will review courses for alignment to standards and approval for credit.

Other clarifications:

Mathematics

It is imperative that a student's plans for college or postsecondary should be considered when selecting a mathematics-credit eligible course. The Mathematics Pathways memo <http://www.alsde.edu/sec/sct/COS/Mathematics%20Pathways.pdf> is a document that provides possible mathematics pathways for students, parents, and counselors to consider when preparing for high school mathematics course credits. In an effort to offer more flexibility to school systems, the Flexibility in Awarding Credit for Algebra I and Geometry memo, <http://www.alsde.edu/sites/memos/Memoranda/FY13-2121.pdf#search=Flexibility%20in%20Algebra%20I> explains how Algebra I and Geometry may be offered to students in Grades 7 and 8, respectively, for high school credit and to meet graduation requirements.

If you have questions, please contact Michele Matin at mmatin@alsde.edu or Dawn Morrison at dmorrison@alsde.edu.

Arts (includes Dance, Music, Theater, and Visual Arts)

The current *Alabama Course of Study: Arts Education* was written to satisfy the previous graduation requirements of 0.5 credit for Arts. There are several options (listed below) for students currently wishing to follow an arts pathway and/or take their electives in arts.

- Students may take the half-credit courses back-to-back in one year to meet the one-full credit course.
- Teachers may add new content to the 0.5 credit course to allow it to count as a one credit course. (A sufficient amount of additional/new content must be documented and kept on file.)
- Courses that are used as arts-credit eligible options must contain the three strands—Produce, Respond, and Understand as found in the *Alabama Course of Study: Arts Education*. These courses may serve for any of the three credits required under the “CTE, Foreign Language, or Arts” category. Arts courses lacking these three strands may serve only as a general elective credit (the 2.5 credit category).

Please contact Andy Meadows at ameadows@alsde.edu.

Science

The following Career and Technical Education courses are science-credit eligible. Teachers holding the appropriate science certifications and those with appropriate Career and Technical Education certification may teach the courses below for science credit.

- Forensic and Criminal Investigations (410025)
- Plant Biotechnology (420053)
- Aquaculture Science (420037)
- Introduction to Biotechnology (490041)
- PLTW Principles of Engineering (560016)

The following Career and Technical Education courses contain similar content as courses in the *2015 Alabama Course of Study: Science*. Students may not receive science credit for both courses.

- Chemistry of Food (510013)—similar content as Chemistry (220061)
- Environmental Management (420026)—similar content as Environmental Science (220029)
- Human Body Structures and Functions (490015)—similar content as Human Anatomy and Physiology (220026)
- PLTW Human Body Systems (490043)—similar content as Human Anatomy and Physiology (220026)

Please contact Collie Wells at cwells@alsde.edu or Michal Robinson at mrobinson@alsde.edu for additional information.

Essentials Pathway

Effective with the 2017-2018 school year, only students with disabilities will be allowed to enroll in Essentials courses. Careful consideration should be given before a student is allowed to enroll in one of the Essentials Pathway courses. If a student takes four or more core courses on the Essentials Pathway he or she is required to complete the work component requirements of this pathway. It is important for each student to pursue the coursework that is appropriate for his or her desired post-school outcome. These courses may or may not be accepted by four-year colleges, and will not be accepted by the **National Collegiate Athletic Association (NCAA)**. Students who plan to attend a postsecondary institution must meet the admission requirements of the selected institution. For May 2017 graduates, only students who completed the course requirements for the general education pathway which is fully aligned with the state's academic standards will count in the USDOE 2017 Graduation Rate for Alabama. Students who followed the Essentials Pathway and/or the AAS Pathway will not count as graduates in the USDOE Four-Year Cohort Graduation Rate. They will, however, receive an AHSD.

The Courses for the Alabama High School Diploma Pathways and the Work Component Requirements can be found in the Preparing for Life Transition Planning Guide, <http://www.alsde.edu/sec/ses/Pages/transition-all.aspx?navtext=Secondary%20/%20Post%20Secondary:%20Transition>.

The Alabama Occupational Diploma is no longer an option for students after the ninth grade cohort of 2012-2013. Some students under this diploma option may continue to be in schools until they reach the age of 21.

Please contact Cindy Augustine at caugustine@alsde.edu for additional information.

Waivers

Waivers for the LIFE PE course are still required to substitute Band, Athletics, etc. The standards from the LIFE PE course must be included in the course. A student roster is no longer required to be included in the waiver letter. Please contact Nancy Ray with any questions at nray@alsde.edu.

Some districts are pursuing innovative schedules, instructional delivery models, etc., that require permission to waive certain policies. Please contact Shanthia Washington with questions regarding these options at swashington@alsde.edu.



ATTACHMENT-5

Academic Calendar for 2018-2019

August						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
September						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						
October						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
November						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	
December						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

January						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		
February						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		
March						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						
April						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				
May						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Month	Days	Event
August	1-3	Staff PD
	6-10	Staff PD
	10	Student/Parent Orientation
	15	First Day of the School
September		
	3	Labor Day
October		
	8	Staff PD
	12	End of the 1st 9 weeks
	17	Parent -Teacher Student Goal setting Meeting
November		
	19- 23	Thanksgiving break
December		
	21	End of the 2nd 9 weeks

Month	Days	Event
January		
	7	Staff PD
	8	1st day of the Spring Semester
	21	Martin/Lee
February		
	18	President's Day/Holiday
	19	Staff PD
March		
	8	End of the 3rd 9 weeks
	20	Parent -Teacher Student progress monitoring Meeting
April		
	19	Inclement Weather/Make up day
May		
	24	Last Day of the School

ATTACHMENT-6

Structure of School Day and Week

LEAD Academy

Daily and Weekly Schedules

The total academic year will consist of 180 instructional days. There will be 7 professional development days before the school year starts and 5 days for professional development during the school year. Teachers will have a 45-minute planning time and a 30-minute duty free lunch period daily.

Parents will receive progress reports in the middle of each quarter. Report cards will be sent to parents at the end of each quarter with an acknowledgment section that will be signed and returned to the school.

After the first and third report cards, teachers will have Parent/Teacher/Student goal setting and academic progress monitoring conferences. Parents will be asked to sign up for these meetings according to their availability.

The daily hours of operation will be from 7:45 AM to 3:10 PM. However, school will be open starting 7:15 until 4 PM. After 3:10 PM, there will be several programs for students such as tutoring for intervention, enrichment activities, and extra-curricular activities. Please see a tentative daily schedule for middle school students.

Daily Schedule	
Time	Activity
7:15	School opens doors
7:15-7:40	Breakfast
7:40	Daily announcements, Pledge of Allegiance & Texas Pledge of Allegiance
7:45	First period starts
7:45-8:15	Blended learning, ELA & Math Multi-tiered Interventions–PBL activities
8:18-9:03	Mathematics
9:06-9:51	Language Arts (English)
9:54-10:39	Art/Music
10:42-11:12	Lunch
11:12-11:30	Recess
11:30-12:15	Social Studies
12:18-1:03	STEM/Computer/Coding
1:06-1:51	Science
1:54-2:39	Physical Education/Health
2:42-3:10	Character Education with Social Emotional Components
3:10	Dismissal starts
3:10-4:00	Clubs, After school programs, Community based events, Tutorials

LEAD Academy school year will be 180 days, divided into four quarter. Each term will each be 45 days, within each quarter, the school calendar will include four types of days: instructional days, review days, end-of-term exam days, and holidays and breaks.

Followings are proposed weekly calendars for grades K-8 and 9-12. The school day is provisionally scheduled to run from 7:45 AM to 4:00 pm, Monday through Friday. As illustrated in the following schedule, each student in grades K-8 will have 10 periods of instruction a day from Monday through Friday, plus time for lunch and recess. Every teacher will have at least one 45-minute period a day for planning and collaboration with other section teachers and the administrator who will be in charge of academic programs. Grade- level teams will meet formally once a week during this planning period, led by the lead teacher and the assistant principal.

The following table illustrates a sample schedule for students in grades K-8.

Weekly Schedule for Grades K-8						
Period	Time	Monday	Tuesday	Wednesday	Thursday	Friday
1	07:45-08:15	LEAD Hour***	LEAD Hour***	LEAD Hour***	LEAD Hour***	LEAD Hour***
2	08:18-09:03	Math	Math	Math	Math	Math
3	09:06-09:51	Math	Math	Math	Math	Math
4	09:54-10:39	Reading/Writing	STEM/Comp	Reading/Writing	STEM/Comp	Reading/Writing
	10:42-11:12	Lunch	Lunch	Lunch	Lunch	Lunch
	11:12-11:30	Recess	Recess	Recess	Recess	Recess
5	11:30-12:15	Soc. Studies	LOTE	Soc. Studies	LOTE	Soc. Studies
6	12:18-01:03	ELA	ELA	ELA	ELA	ELA
7	01:06-01:51	ELA	ELA	ELA	ELA	ELA
8	01:54-02:39	Science	Science	Science	Science	Science
9*	02:42-03:10	SEL**	Art	Music	PE	PE
	3:10	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal
10	03:10-04:00	Club/Tutorial	Club/Tutorial	Club/Tutorial	Club/Tutorial	Club/Tutorial

*= Planning Period for teachers

**=Social Emotional learning, Character Education etc.

***=Students participate in PBL, Blended Learning, ELA, Math Multi-tiered activities

High school schedule include an advisory period five days a week, when students will meet with faculty advisors to discuss their personal aspirations, educational and career goals, challenges, and progress. Students will choose at least a club that may include chess, English and math tutoring, theater, art, and puzzles (problem-solving). As the school

expands in grades, additional activities will be offered to include athletic activities and social events; community service projects; and such school-based organizations as the student council and the school's newspaper.

The following two table illustrates sample schedules for students in grades 9-12. As noted there are two schedules for group A and B. Students will be assigned to either one of these groups. Unlike K-8, high school students will have block schedule. Each block is 90 minutes.

Weekly Schedule for Grades 9-12 (Group-A)						
Period	Time	Monday (A)	Tuesday (B)	Wednesday (A)	Thursday (B)	Friday (A)
0	07:45-08:15	LEAD Hour***	LEAD Hour***	LEAD Hour***	LEAD Hour***	LEAD Hour***
Block-1	08:18-09:51	Math	Electives	Math	Electives	Math
Block-2	09:54-11:12	ELA	Electives	ELA	Electives	ELA
	11:15-11:45	Lunch	Lunch	Lunch	Lunch	Lunch
Block-3	11:48-01:18	Soc. Studies	Electives	Soc. Studies	Electives	Soc. Studies
Block-4	01:21- 02:51	Science	Electives	Science	Electives	Science
Advisory	02:54-3:15	Advisory	Advisory	Advisory	Advisory	Advisory
	3:15	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal
	03:15-4:00	Club/Tutorial	Club/Tutorial	Club/Tutorial	Club/Tutorial	Club/Tutorial

Weekly Schedule for Grades 9-12 (Group-B)						
Period	Time	Monday (B)	Tuesday (A)	Wednesday (B)	Thursday (A)	Friday (B)
0	07:45-08:15	LEAD Hour***	LEAD Hour***	LEAD Hour***	LEAD Hour***	LEAD Hour***
Block-1	08:18-09:51	Electives	Math	Electives	Math	Electives
Block-2	09:54-11:12	Electives	ELA	Electives	ELA	Electives
	11:15-11:45	Lunch	Lunch	Lunch	Lunch	Lunch
Block-3	11:48-01:18	Electives	Soc. Studies	Electives	Soc. Studies	Electives
Block-4	01:21-02:51	Electives	Science	Electives	Science	Electives
Advisory	02:54-3:15	Advisory	Advisory	Advisory	Advisory	Advisory
	3:15	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal
	03:15-4:00	Club/Tutorial	Club/Tutorial	Club/Tutorial	Club/Tutorial	Club/Tutorial

ATTACHMENT-7

School Enrollment Plan

Attachment-7

Enrollment Plan for LEAD Academy

Enrollment Policies and Procedures

The School attempts to achieve racial and ethnic balance by being open to all students and openly marketing to every subsection of the potential student population. Upon approval of this application, the School will establish Enrollment Office to begin attracting and enrolling students for enrollment at the beginning of the 2018 – 2019 school year. After that, the School will offer daily enrollment for students who wish to enroll, space permitting.

It is the policy of LEAD Academy that enrollment will not be denied to any eligible applicants on the basis of gender, race, religion, national origin, ancestry, pregnancy, marital or parental status, sexual orientation, or physical, mental, emotional or learning disability. The School shall enroll any eligible student who submits a timely application unless the number of applications exceed the targeted capacity. In such cases, all applicants shall have an equal chance of being admitted through the lottery process. The Principal or his/ her designee will manage the lottery process and maintain appropriate documentation thereof.

Lottery Procedures

A lottery is to be conducted if the number of applicants exceeds the maximum enrollment. The lottery shall take place within fifteen days after the closing date of the application period. Each student will be assigned a number. Numbers will be written on a piece of a paper (1" by 2") and folded twice. Numbers will be placed in a container and randomly drawn one number at a time by the principal or his/her designee. The lottery will be supervised by at least one member of the sponsoring entity or his/her designee and by a school representative. Results of the lottery shall be certified by a notary public.

Development of a Wait-List

The lottery will be paused momentarily once the number of student names reaches the proposed enrollment cap. Then the drawing will continue and a waiting list will be developed by pulling the remaining names until all names are pulled. As space become available, applicants will be called from the waiting list with the lowest number assignment.

Admission Process of Returning Students

Returning students (students who currently attended the school and intend to return the next school year) are given priority in admission if they notify the school of their intent to return for the next school year by February 1st of each school year.

Siblings Policy and Children of the School's Founders and Teachers

Siblings of returning students will be exempt from the lottery and will obtain automatic admission. Siblings of returning students are required to follow regular admission

procedures. However, children of the school's founders and teachers (so long as the total number of students allowed constitutes only a small percentage of the total enrollment) as permitted by the federal guidance on the Charter Schools Program are exempt from lottery requirements.

Applications that are submitted outside of the designated application period

If a student applies to the school outside of the designated application period, the student will be placed on a waiting list in the order of the date in which the application is received.

Students accepted will be notified by letter within ten days giving them instructions to call the school and confirm intent to enroll. The School will also call families to notify them of acceptance and to confirm intent to enroll. All attempts to reach the family and if contacted the response from the family will be documented. If the student has not confirmed intent to enroll within two weeks of receiving confirmation of acceptance the student will be placed on the bottom.

Withdrawal and Re-Enrollment Procedures

Should a student decide to withdraw from the school, the required documentation will be obtained as to the reason for withdrawal. An exit interview will also be done with the student and parent if possible. Students withdrawing will be provided with options for different programs/schools that may be a better fit. A student can re-enroll into the School, if there is available space. If space is not available, the student will go into the lottery system.

Records

The School will have procedures in place that will meet all local, state and federal reporting requirements. The records of all students will be maintained in the state-adopted Alabama Student Information System (ASIS). The registrar/enrollment specialist will be responsible for requesting and responding to a request for student records to and from other schools. Enrollment and attendance data will be reported to local school systems and the ALSDE in the required timeframe and in the requested format.

Release of Student Records

The registrar/enrollment specialist will be responsible for responding to a request for student records to other schools. Parental and Guardian consent is not required to release student records as long as permitted by law. Such agencies as child, family services and law enforcement agencies may be granted access to student records. A log will be kept to record all records requested and released with the agency/name of the person requesting or receiving information. In addition, a log will be maintained to record requests by school personnel for student records, at any time these need to be removed from the designated area. Student records must be returned at the close of each school day. For records to be released to non-school personnel the parent needs to put in writing the records to be released and identifying the person to whom the records will be released.

Records will be secured and accessible only to authorized staff members at the school. Student records are official and confidential documents protected by the Federal Family Educational Rights and Privacy Act (FERPA), Children's Internet Protection Act (CIPA), Health

Insurance Portability and Accountability Act (HIPAA), and Children’s Online Privacy Protection Act (COPPA) and will be treated as such. Electronic records will be backed up and backups will be stored in a safe, easily accessible location (i.e. external hard drive, server).

In the case of separated or divorced parents, both parents will have access to the student’s records unless there is a court document denying one parent access to his/her student records. This documentation will be kept with the student’s record file.

Recruitment Strategies and Marketing Objective:

Initially, student recruitment efforts will be managed by CMO and the board. The recruitment process will include public notice through newspaper advertisements, direct mail, community information sessions, and announcements in local newsletters as well as notices on the school’s website. Open houses, school tours and presentations are also part of the recruitment activities. During this recruitment process, the school will provide parents of potential students with accurate information about the programs, services and amenities available at LEAD Academy, and will highlight the unique characteristics.

The following timetable will be followed, as amended by RAH administration, for the student recruitment and admission process.

2/15/18 --6/1/2018	Recruitment activities and Outreach Campaigns
2/15/18 --6/8/2018	Applications from prospective students
6/15/2018	Conduct Public Lottery
6/16/2018--8/3/2018	Lottery Winners’ registration

LEAD Academy will be a school of choice for those who live in Montgomery County area. However, we anticipate that majority of our students will come from the neighboring schools. The school will request students’ addresses from the districts in the area and will send bulk mail to reach out to those parents and students.

Initial Out Reach:

We will implement a comprehensive marketing program including the following sources: Target zip code mailings, target email campaign, radio ads, newspaper print ads, billboard/signage, information sessions, social media, public relations, business association meetings, and church out reach.

Outcomes;

- Increase the number of families attending information sessions
- Increase traffic to website
- Increase number of inquiries
- Recruit 360 students for fall 2018
- Address dual audiences (students and parents) successfully
- Incorporate a referral program to generate new leads
- Increase the number of opportunities a parent and/or student has to respond

ATTACHMENT-8

Student Discipline

Attachment-8: Student Discipline

In a school environment, discipline is often solely characterized by student behavior. Discipline encompasses not only student behavior but all elements that contribute to the teaching and learning environment. Those elements include but are not limited to policies, rules, procedures, expectations, and motivators. The management techniques ingrained in each of these elements are not systematically addressed within instructional techniques, thus our philosophy requires a formal school-wide discipline plan.

It is the philosophy of the school to create a positive discipline plan and learning environment in order to encourage appropriate student behavior. A strong, well-defined, universally communicated and consistently enforced discipline code will ensure that students understand what is expected of them, the consequences for noncompliance, and how and by whom their performance will be judged. The School strongly believes that specialized, individual, group, and universal interventions will have a greater likelihood of enabling students to change their behavior in a way that does not interfere with their learning or the learning of others than a model of discipline that relies solely on consequences for misbehavior. An added component to dealing with these students will be interventions such as anger management instruction, guidance counseling sessions, teacher-parent-student meetings, and other interventions designed to identify the root problems and teach appropriate behaviors.

The school's philosophy regarding student behavior supports the view that most behavior is directly influenced by the level that students perceive teachers, administrators, and staff care about them and the academic mission of the school. The School maintains the conviction that a safe and orderly school is essential toward meeting academic as well as social expectations. Effective discipline and adherence toward personal and common goals of excellence will be a key component of the school's behavior philosophy. LEAD Academy believes that students should feel a sense of support and encouragement in all aspects of their education, where teachers are not viewed as adversaries, but rather concerned mentors with an interest in their academic interests and their emotional well-being. The School further feels that teachers, administrators, and staff should demonstrate the courage to model good character and engage actively in the behavioral standards adopted by the School.

Additionally, parents will be viewed as partners in the education of each student. In order to earn and maintain the behavioral policy support of parents, the School will provide clear, reasonable, and fair expectations that further the goals of instruction and the safety of all students and staff. The school will seek to work in collaboration with parents in order to turn incidents of poor student behavior into opportunities for

personal growth, thereby reducing the probability of future disruption to the learning environment and damage to student self-esteem. The philosophy is that discipline directly affects student behavior. We will provide a strict environment where learning comes by enforcing rules, procedures, and high expectations.

LEAD Academy discipline plan is rooted in equipping students, teachers, and all other members of the school community with the tools needed to secure an optimal teaching and learning environment thus enhancing the opportunity for exemplary academic achievement and personal development.

The school will utilize the Montgomery County District Student Code of Conduct: [www.montgomeryschoolsmd.org/uploadedFiles/students/rights/129916_2016-2017_STUDENT_Code%20of%20Conduct_Web\(2\).pdf](http://www.montgomeryschoolsmd.org/uploadedFiles/students/rights/129916_2016-2017_STUDENT_Code%20of%20Conduct_Web(2).pdf) - Copies of the School District Code of Conduct will be distributed to each student and parent at the beginning of the school year. Additional disciplinary procedures will be handed out along with the parent handbook and parent/student contract of The school for the discipline of all students including Special needs students.

The school recognizes that the District's Code of Conduct is based on legally sound policies for student discipline, suspension, dismissal, and recommendations for expulsions. That is why we are adopting their code of conduct. We also acknowledge that students with disabilities will be disciplined only in accordance with the requirements of the individuals with Disabilities Education Act and the Rehabilitation Act. By following the District's Code of Conduct we acknowledge that charter school students will be assigned to an alternative school in the School District only through the process established by Montgomery School District Board Policy and will be expelled from Montgomery County Public Schools only if approved by the School Board.

The school will not dismiss an otherwise qualified student from attendance except for causes for expulsion as contained in the Code of Student Conduct. The school will work in close contact with the school district. If the school considers removal of a student from attendance, it will inform the School District of the intention and share information concerning the basis for considering removal. The school will always contact the school district before taking any action.

The school will not transfer an enrolled student to another charter school or any other school in the district without written parental approval, as required by the district's policy or by state statute or code.

Definitions

Bullying: engaging in behavior that prevents or discourages another student from exercising his/her right to public education by use of threats, coercion, repeated harassment, abuse, and/or intimidation, whether physical, psychological, sexual or indirect through electronic, digital or telephonic means.

Corporal Punishment: physically punishing a student for violation of the Code of Conduct; corporal punishment does not include that use of force necessary to (i) calm a disturbance; (ii) obtain possession of a weapon or other dangerous object; (iii) defend oneself; or (iv) protect persons or property.

Disability: physical or mental impairment that substantially limits one or more major life activities of an individual; a record of such impairment; being regarded as having such impairment; or having a specific disability, including, but not limited to, autism, mental retardation, specific learning disability, hearing impairment, speech/language impairment, visual impairment, serious emotional disturbance, orthopedic impairment, traumatic brain injury, other health impairment.

Expulsion: removal of a student from the school for more than ten (10) days due to a violation of the Student Code of Conduct.

Gang: any organization with an identifying name, sign or symbol, or that individually or collectively engages in or has engaged in activity or conduct, or a pattern of activity or conduct that endangers or disrupts the safety of the school or members of the school community.

IEP: Individualized Education Plan developed for a student with a disability who qualifies to receive special education services.

In-School Suspension: a disciplinary measure taken by the Administration which allows a student to attend school, but which prohibits the student from attending regular classes.

Manifestation Determination: a meeting of teachers, parents, and relevant members of an IEP Team regarding the conduct of a student eligible to receive special Education services, during which the team evaluates all relevant information and any unique circumstances to determine whether (i) the conduct in question was caused by, or had a direct and substantial relationship to, the student's disability; or (ii) the conduct was the direct result of the school's failure to implement the student's IEP.

NOREP: Notice of Recommended Educational Placement, which is presented to the parent(s) of a student who qualifies to receive special education services, and recommends an appropriate placement for the student and discussed the appropriate educational program for the student.

Possession: physical control over property, whether lost, found or stolen, which

may include items contained in or on clothing, in lockers, storage areas or bags.

School Grounds: any property owned or leased by, or licensed to the Charter School, and/or utilized by the school in association with any vendor.

School Privileges: any school-related or school-sponsored activities or programs, including but not limited to, graduation ceremonies, dances, class trips, sports, clubs, recess, or any other extracurricular activities. Participation in these activities are privileges not rights.

Serious Bodily Injury: bodily injury that creates a substantial risk of death, extreme physical pain, protracted and obvious disfigurement, or protracted loss or impairment of the function of any bodily member, organ or mental faculty.

Suspension: involuntary removal of a student from class and/or school attendance for a period of ten (10) school days or fewer.

Trespass: entry upon school property without permission or when prohibited.

Weapon: any instrument, including, but not limited to, any knife, cutting instrument or tool, nunchaku, firearm, shotgun, rifle, explosive device, pepper spray, mace, laser pointer and any other tool or implement capable of inflicting serious bodily injury to another.

Rights and Responsibilities of Students

Education	
Right: Students have the right to a public education, unimpaired because of gender, race, religion, national origin, medical condition, disability, parenthood, marital status, economic status, personal characteristics, or any reason not related to their individual capacities.	Responsibility: Students have the responsibility to avoid actions or activities that interfere with other students' rights to an unimpaired public education.

Learning Environment	
Right: Students have the right to an orderly school and classroom environment that will promote learning for all students.	Responsibility: Students have the responsibility to ensure that their action does not disrupt the school or classroom environment, or school activities.

Expression	
Right: Students have the right to express themselves in speech, writing and/or expression within the boundaries defined by federal and state law, and the policies established by the school.	Responsibilities: Students have the responsibility to ensure that their expression does not disrupt the school or classroom environment, or school activities

Possession and Distribution of Literature	
Right: Students have the right to possess and distribute literature, including, but not limited to, books, newspapers, magazines, pamphlets, handbills, or leaflets in accordance with federal, state and/or local law, and the policies established by the school. The Chief Administrative Officer or Principal has the authority to determine the time, place and manner of distribution.	Responsibility: Students have the responsibility to ensure that the literature they possess or distribute does not infringe upon the rights of others, and does not contain offensive language of a religious, racial or ethnic nature, or language that may be construed as harassing or obscene.

Religion	
Right: Students have the right to their own religious beliefs and the exercise of those beliefs.	Responsibility: Students have the responsibility to ensure that the exercise of religious freedom does not infringe upon the Constitutional rights and freedom of religious expression of others.

Privacy	
Right: Students have the right to be free from unlawful searches and seizures of their personal property and possessions.	Responsibility: Students have the responsibility to not possess materials, objects, implements, and/or instruments that are prohibited by federal, state and/or local law or that may be disruptive or otherwise in violation of the School's Rules.

Peaceful Assembly	
Right: Students have the right to a peaceful assembly.	Responsibility: Students have the responsibility to secure approval for use of school facilities for assembly; to discuss with an administrator the appropriateness of the facility for the function; and to ensure that assembly does not disrupt the educational process. Lack of adequate supervision shall be grounds for disapproval of assembly.

Transportation	
Right: Students have the right to safe and orderly transportation to and from school or a school activity when transportation is provided.	Responsibility: Students have the responsibility to ensure that their conduct contributes to a safe and orderly atmosphere; to refrain from conduct which may cause a hazard to themselves, their fellow students, or to the public; and to refrain from violating federal, state and/or local laws or school policy regarding transportation. Students who fail to fulfill their responsibility may relinquish their right to transportation.

Rights and Responsibilities of Parents

Enrollment	
Right: Parents have the right to enroll their children in the Charter School, regardless of their district of residence, within the enrollment guidelines established by the Board of Directors.	Responsibility: Parents have the responsibility to ensure that their children who are enrolled in the Charter School attend school regularly, on time, and for the entire school day in accordance with state law and the policies set forth by the Board of Directors.

Progress

Right: Parents have the right to receive regular official reports of their children’s academic progress, through both written and oral communication.

Responsibility: Parents have the responsibility to assist the School and their children in achieving their academic potential, including planning a time and place for completing homework, and providing the necessary supervision while their children complete assignments. In addition, parents have the responsibility to attend and participate in all parent-teacher conferences.

Language Preference

Right: Parents have the right to receive any oral and written communication from the School in the language used by the family in the home. This right includes the right to have a translator present at any disciplinary proceedings commenced against their child.

Responsibility: Parents have the responsibility to inform the School when they need to receive oral and written communication in a language other than English. This responsibility includes the responsibility to notify the School if a translator will be necessary at any disciplinary proceedings commenced against their child.

Enforcement

<p>Right: Parents have the right to ensure that the provisions of this Code are applied reasonably and fairly with respect to their children.</p>	<p>Responsibility: Parents have the responsibility to understand the rules set forth in this Code and to discuss expected behavior with their children, as well as to inform the Administration and/or the Board of Directors of their concerns regarding the application of this Code to their children in a calm and reasoned manner.</p>
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Dress Code

The school reserves the right to establish dress and grooming guidelines that are within the parameters of generally accepted community standards. Students are required to show proper attention to personal cleanliness. Fashions and fads that constitute a health hazard to ones self or others will not be permitted.

Student dress and personal hygiene must be of such character so as not to disrupt or distract from the educational environment of the school. Any form of dress or appearance so determined is prohibited. Students who are in violation of the dress code must immediately change into alternative clothing provided by the school or parent to correct the violation. If it is not feasible to correct the violation, the student will be sent home. The school's dress code:

1. Requires that shorts and skirts reach the tip of the middle finger when the hands are fully extended to the side. Slits in skirts and dresses must be an appropriate length.
2. Requires that any emerging trend, which is not addressed below, will be evaluated by the administration.
3. Requires the wearing of shoes.
4. Prohibits the wearing of apparel that may constitute a threat to the health, safety or welfare of others. This includes wallet chains, belts (made of chain), etc.
5. Prohibits "dog collars", spiked bracelets, or chains that could be dangerous to persons or destructive to school property.
6. Requires that shirts/blouses/trousers be properly buttoned in accord with the design. See-through material must be worn with shirts, shorts, or skirt underneath.
7. Prohibits slogans or sayings written across sensitive areas of the body or written/pictorial graphics that draw attention to sensitive areas of the body (chest, buttocks, pelvis, etc.)
8. Prohibits the wearing of spandex clothing, biking pants, boxer shorts, or exercise clothing. Sweat suit clothing is permitted.

9. Prohibits canes or cane-like items unless approved by the school nurse.
10. Prohibits the wearing of tank tops, crop tops, mesh clothing, or bare midriff attire.
11. Prohibits the wearing of hats, sweat bands, head gear, and sunglasses in the building.
12. Prohibits the display of slogans or advertising of alcohol, tobacco products, or drug paraphernalia on clothing which by their controversial or obscene nature disrupt the educational setting or are sexual in nature and/or offensive to any ethnic group.
13. Prohibits the wearing of bandanas and handkerchiefs on heads, around necks, hanging out of the pocket or tied to any body part. Any clothing identified as gang related is strictly prohibited.
14. Prohibits the wearing of torn and/or ripped clothing that exposes sensitive areas of the body or presents a safety hazard.
15. Requires that pants or shorts be worn to the waist (no low rise pants) and the pants be of a length, unrolled, which do not touch the floor.
16. Prohibits the wearing of oversized clothing which shall include pants, t-shirts, shirts, coats, and jackets.
17. Requires that coats, jackets, or garments designed for protection from outside elements shall not be worn in the building during the school day.
18. Prohibits the wearing of earrings and body rings in a location other than the ears, during physical education and other classes which may pose a health hazard. A teacher may require the removal of earrings or other jewelry, in such situations; to the extent such jewelry poses a health or safety hazard to the student or others.
19. Prohibits other ornamentation that attracts undue attention or is distracting or disruptive to classes.
20. Requires that tattoos displaying objectionable material must be covered. Objectionable material includes, but is not limited to, material determined to be obscene, profane, frightening, disgraceful, degrading or gang related.
21. Allows that individual arts and physical education teachers may set their own requirements for appropriate dress for their class.
22. Requires that the first period teacher check their students for dress code violations and send them to the office if there is a problem.
23. Permits that the administrative staff shall have the right to modify specific items in these regulations as school situations and activities merit.
24. Requires that in situations where a disagreement exists as to whether or not the attire is appropriate, the Principal shall make the final decision.

Guidelines and Consequences for Student Behavior

No student may engage in conduct, or encourage any other person to engage in conduct, that jeopardizes or threatens the health, safety or welfare of any member of the school community, or that disrupts or undermines the educational mission of the Charter School.

None of the consequences listed below will be applied in such a manner as to discriminate against any student based on gender, race, religion, national origin, medical condition,

disability, parenthood, marital status, economic status, personal characteristics, or any reason not related to his/her individual capacities, The Administration of the Charter School will impose consequences for behavior that falls within the range of consequences for a particular violation of this Code. The severity and/or nature of the consequence imposed will be based on factors including, but not limited to, age of the student, number of prior offenses, disability, and/or severity of the violation.

The Charter School has the right to impose consequences for acts or behaviors that are not specifically delineated within this Code if those acts or behaviors threaten the health, safety and/or welfare of other members of the school community, or if those acts or behaviors disrupt the learning environment.

Various means may be used by school personnel to discourage or extinguish undesirable behaviors. Such means may include counseling the student; conferencing with the parent(s); assigning extra responsibilities at school; assigning community service; or imposing detention, in-school suspension, out-of-school suspension for up to ten (10) consecutive school days, expulsion for a period of more than ten (10) consecutive school days, or permanent expulsion.

Corporal punishment is prohibited by the Charter School and will not be imposed as a consequence for any violation of this Code. Corporal punishment does not include that amount of reasonable force necessary to stop a disturbance which threatens the health, safety or well-being of another; to protect School property; to gain possession from a student of a weapon or other instrumentality which is or may be used to cause injury to another; or to engage in self-defense.

Rules

Students who engage in activities that violate any federal, state and/or local law may be subject to criminal charges and punishment in addition to any disciplinary measures undertaken by the School.

Rule 1 No student may disrupt the school or the learning environment.

- Students shall act in a courteous manner at all times and toward all members of the school community, and shall not engage in conduct which disrupts any school-sponsored or school-related educational program or activity.
- The following, although not exhaustive, shall be considered violations of this Rule:
 1. Disobedience
 2. Disrespect
 3. Dishonesty
 4. Failure to follow established school rules
 5. Failure to attend class without a valid excuse

6. Failure to comply with the established dress code
7. Failure to comply with the established attendance policy
8. Loitering and/or failure to provide identification upon request – **No Loitering in hallways, restrooms, atrium or any areas in or out of school buildings**
9. Possession or use of beepers, pagers, not including a calculator or digital watch, during school hours or programs.
10. Running or making of excessive noise in the school building

Rule 2 No student shall use offensive language.

- Students shall refrain from using language that may be classified as obscene, offensive or vulgar, or which would violate school policies regarding discrimination and/or harassment of any kind.
- A student will be considered to have violated this Rule if he/she makes libelous or slanderous remarks directed at another member of the school community.
- A student will be considered to have violated this Rule if he/she sends or forwards any offensive, sexually-oriented, obscene, vulgar, and/or threatening messages, picture, or symbols from any source to any member of the school community.
- A student will be considered to have violated this Rule if he/she wears or displays any colors or symbols with the intent to show or indicate allegiance to or affiliation with any gang.

Rule 3 Students shall maintain good records of attendance.

- Students shall adhere to the School's Attendance Policy.
- The following, although not exhaustive, will be considered violations of this Rule:
 1. Excessive absence
 2. Excessive lateness or tardiness
 3. Failure to report to class without a valid excuse (cutting class)
 4. Truancy

Rule 4 Students shall maintain the highest standards of academic honesty and integrity.

- A student will be considered to have violated this Rule if he/she forges any paper, report, test or notes, or engages in any other type of cheating and/or copying of the work of another student.
- A student will be considered to have violated this Rule if he/she plagiarizes any publication or paraphrases any publication without appropriate citation.

Rule 5 Students shall be respectful, self-controlled, non-disruptive and considerate in their relationships with all members of the school community.

Rule 6 Students shall not engage in gambling, or take or place bets on chance for personal benefit.

Rule 7 Students shall not engage in improper use of technology.

- Students shall respect the computer privileges granted to them and shall comply with the School's Acceptable Use Policy whenever they use the School's computers, equipment, network system or any other technology owned by or licensed through the School.
- The following, although not exhaustive, shall be considered violations of this Rule:
 1. Giving his/her password to another individual
 2. Using another's password
 3. Illegally downloading copyrighted material from the internet
 4. Purposely or recklessly visiting sites on the internet that contain sexually explicit or otherwise offensive materials
 5. Harming, damaging or disrupting hardware and/or software
 6. Harming or destroying the data of another person or student
 7. Harming or destroying the internet or other school networks
 8. Purposely or recklessly creating, downloading, or uploading a computer virus
 9. Breaking into or hacking into other files or systems.
 10. Accessing and/or altering school records, information or files without express permission
 11. Conducting any business enterprise

Rule 8 Students shall not damage, deface, destroy or steal school property or Personal property of another member of the school community.

- A student will be considered to have violated this Rule if he/she creates graffiti, carves, tears, cuts or otherwise marks, regardless of whether the marking is permanent, property owned or leased by, or licensed to the School.
- A student will be considered to have violated this Rule if he/she steals or attempts to steal school property or any property leased or licensed to the school, or the personal property of another member of the school community while on school property or at any school-sponsored or school-related activity or event.

Rule 9 Students shall not cause or attempt to cause physical injury to any member of the school community.

- Students will be held responsible for their purposeful, reckless and negligent actions and the reasonably foreseeable consequences of their actions **from the school as well as the police.**
- The following, although not exhaustive, shall be considered violations of this Rule:
 1. Physical contact by pushing, shoving or hitting

2. Physical contact by kicking
3. Throwing any object that may cause injury to another at any member of the school community
4. Biting
5. Spitting
6. Roughhousing or horseplay
7. Verbal or physical confrontation/fighting

Rule 10 **Students shall not recklessly endanger any member of the school community.**

- Students shall not act in any manner which creates a substantial and unjustifiable risk of harm to others and indicates a conscious indifference to the consequences of the act. Any verbal or physical intimidation or fighting are prohibited.

Rule 11 **Students shall not falsely activate any fire alarm, security system, smoke detector or any other device which may cause disruption of the school community, fear or panic.**

- Any student who falsely activates any such device that results in a response by authorities including, but not limited to, the fire department, the police, emergency medical personnel, and/or results in evacuation of the school building(s) will be considered to have violated this Rule and may be subject to sanctions under federal, state and/or local law.

Rule 12 **Students may not possess, use, distribute or solicit the use or distribution of any tobacco product, vaporizing products (e-cigarettes) or related paraphernalia while on property owned by, leased or licensed to the School, or while at any school-sponsored or school-related activity or event.**

Rule 13 **Students shall not possess, use, distribute or solicit the use or distribution of any unauthorized prescription or non-prescription medication, drug, narcotic, hallucinogen, steroid, growth hormone, amphetamine, barbiturate, opiate, marijuana, inhalant, alcohol or any other intoxicant or related paraphernalia while on property owned by, leased or licensed to the School, or while at any school-sponsored or school-related activity or event.**

Rule 14 **Students shall not directly or indirectly communicate any threat to any member of the school community which places that person in fear or apprehension of injury, pain and/or ridicule.**

- Continual threats, harassment, bullying and/or intimidation are grounds for more serious disciplinary action.

Rule 15 **Students shall not expose their genitalia to any member of the school community, nor shall they touch the genitalia of another.**

Rule 16 **Students shall not leave the school campus without permission. Leaving the school campus without permission is clearly a major safety concern.**

- Violation of this rule will result in strong disciplinary action. Repeat offenders will be considered for expulsion from The school

Rule 17 **No student shall engage in repeated violations of this Code.**

- A student will not be considered to have engaged in repeated violations of this Code unless all reasonable and appropriate remedial interventions have been undertaken by school personnel.
- A student who repeatedly violates this Code in disregard of reasonable and appropriate interventions may be subject to suspension and/or expulsion

Rule 18 **Students shall not engage in any activity which can reasonably be expected to have the effect of harassing, threatening or damaging the safety or reputation of any member of the school community.**

- The following, although not exhaustive, shall be considered violations of this Rule.
 1. Unwelcome sexual advances
 2. Requests for sexual relations and/or favors
 3. Sexual comments
 4. Sexually-oriented gestures, sounds, remarks or comments
 5. Offensive remarks or comments related to a person's race, gender, religion, disability or national origin
 6. Efforts to intimidate or bully
- Any of the above conduct or any other conduct which may reasonably be considered as a violation of this Rule, whether in written, oral, electronic or digital form is subject to disciplinary consequences.

Rule 19 **Students shall not engage in any consensual sexual acts, nor shall they force or attempt to force any other member of the school community to engage in any sexual act.**

- For the purpose of this Rule, sexual acts include, but are not limited to:
 1. Intercourse
 2. Oral sex
 3. Groping sexual parts
 4. Simulated sex

Rule 20 **Students shall not cause or attempt to cause physical injury or pain to**

any teacher, administrator, staff member or any other employee or agent of the School, or any member of the school community. No fighting or intimidation will be tolerated.

Rule 21 **Students shall not cause, attempt to cause or threaten to cause serious bodily injury to any member of the school community with a weapon or without regard to the value of human life.**

Rule 22 **Students shall not possess on their person, in their clothing or belongings, or in any storage space or container provided by the School any weapon. Possession of any weapon at anytime by a student is strictly prohibited.**

- For the purposes of this Rule, “weapon” shall include all items listed in the definition provided within this Code, as well as any object not traditionally thought of as a weapon which is used in such a way that it causes or risks injury similar to that caused by any weapon.
- The following steps shall be taken by appropriate personnel at the School in the event a student violates this Rule:
 1. The student will be detained
 2. The incident will be immediately be reported to Police or any other appropriate authority
 3. The parent(s) or guardian(s) of the student will be immediately notified
 4. Expulsion may be recommended in accordance with the law of the Commonwealth of Alabama a
 5. A Serious Incident Report will be filed and will contain:
 - * Circumstances of possession and discovery of the weapon
 - * Action taken by Police or other authority in response to the call for assistance
 - *Action taken by the School, including details of contact with parent(s) or guardian(s), filing of the report and notice to Police or other authority
 - * An image of the weapon
 - * A report to the Alabama a Department of Education (PDE)

Rule 23 **Students shall not engage in or attempt to engage in any conduct which endangers the health, safety or welfare of any other member of the school community.**

- The following, although not exhaustive, will be considered violations of this Rule:
 1. Setting a fire on or in property owned by, leased or licensed to the School
 2. Retaliating against any member of the school community who participated in any investigation or proceeding
 3. Activating the fire alarm, security system or other such device when there is no threat of fire or breach of security, and fire personnel, police or other authority is dispatched to

- the School
4. Planting, hiding or locating, or threatening to plant, hide or locate, any bomb or explosive device on property owned by, leased or licensed to the School

Disciplinary Action

Social Probation

Social Probation is an effective learning technique to assist students in learning to make wise decisions and realizing the negative consequences of poor decisions. The purpose of social probation is to encourage students to act in a responsible and respectful manner.

A student may be placed on Social Probation for a period of time as a result of inappropriate behavior, attendance issues, failing to act in a safe and responsible manner or violations of school rules and regulations, school board policy or the law. The principal or members of the administrative team will determine when and for how long Social Probation will be assigned to a student. The student and parents /guardian will be notified in writing and all due process procedures will be followed when social probation is assigned to a student.

Social Probation at The school can include all or part of the following:

- 1) Not allowed to attend as a spectator or participant any school related activities after school hours or on weekends.
- 2) Not allowed to participate in any co-curricular, extra-curricular, athletic, social (dances and clubs), field trips, musical, artistic, dramatic, or any school related performances or events.
- 3) Not allowed in school or on school property outside of normal school hours.
- 4) Not allowed to participate in school related ceremonial events such as commencement, banquets and prom.
- 5) Limited hall pass privileges.

Participation in these school related activities is a privilege and not an absolute right.

Detention: Retaining the student after school hours with the parent and/or student being responsible for transportation of the student at the end of the detention period

Suspension: Exclusion from school for a period of between one (1) and ten (10) consecutive school days.

No student may be suspended until the student has been informed of the

reason(s) for the suspension and has been given an opportunity to respond, except when the health, safety or welfare of the school community is threatened. The parent(s) of a student will be notified immediately when their child has been suspended. Suspensions must not be made to run consecutively for a period of more than ten (10) school days. If a suspension is to exceed three (3) school days, the student and parent(s) must be given the opportunity for an informal hearing within the first five (5) days of the suspension in accordance with the State Board of Education Regulations.

With respect to the informal hearing, the School must provide the following to the student and/or the parent(s) guardian(s) to comport with due process:

1. Written notification of the reasons for the suspension;
2. Sufficient notice of the time and place of the informal hearing;
3. An opportunity to question any witness present at the hearing; and
4. An opportunity to speak and present witnesses on his/her own behalf

Students have the responsibility to make up assignments, assessments and/or projects missed during the period of suspension within the guidelines set forth by the Board of Directors of the Charter School.

EDGE (Engaging Discipline and Guidance into Education): Exclusion from normal classes for a period that may exceed ten (10) consecutive school days, which takes place on school property. A student may not be given an EDGE assignment unless the student has been informed of the reasons for the EDGE assignment and has been given the opportunity to respond before the EDGE assignment becomes effective. Communication to the parent(s) must follow any EDGE assignment action taken by the school. If the EDGE assignment is for a period of more than ten (10) consecutive school days, an informal hearing with the Chief Executive Officer or Principal must be offered to the parent (s) or guardian (s) prior to the eleventh (11th) school day.

Out-of-School Suspension: Exclusion from school for a period of one (1) to ten (10) consecutive school days which takes place off of school property.

Expulsion: Exclusion from school by the Board of Directors for a period exceeding ten (10) school days, or permanent expulsion from the school rolls. The student and parent (s) must be provided with a formal hearing prior to expulsion and all due process procedures must be followed. A student will be placed in his/her normal class during the period prior to the formal hearing and decision of the Board, except when an informal hearing reveals that the student's presence poses a threat to the health, safety, welfare or morals of others, and a formal hearing cannot be conducted within the period of the expulsion. In such a case, a student may be excluded for a period longer than ten (10) days as long as the formal hearing is not unreasonably delayed, and the student will be provided with alternative education.

The formal hearing required for all expulsions may take place before the Board of Directors, an authorized committee of the Board, or a qualified hearing examiner appointed by the Board. If the formal hearing is conducted before a committee of the Board or a hearing examiner, a majority vote of the Board is required to expel the student. The School must provide the following to comport with due process:

1. Notification of the charges sent via certified mail;
2. Sufficient notice (at least 3 days) of the time and place of the hearing;
3. The opportunity for a private hearing, unless the student or parent requests a public hearing;
4. The names of witnesses against the student and copies of any affidavits or statements of those witnesses;
5. The opportunity for the student to request that any witnesses appear in person to answer questions;
6. The right to testify and present witnesses on his/her own behalf; and
7. The opportunity to receive a record of the hearing at his/her own expense.

In addition, the student has the right to be represented by counsel, and the hearing must be held with all reasonable speed.

Disciplinary Measures for Violations of Rules

Students who are found to have engaged in conduct in violation of any one or more Level I Rules may be subject to one or more of the following consequences, intervention or disciplinary measures, or other measures deemed appropriate, reasonable and/or necessary by appropriate school personnel:

1. Discussion between the student and a teacher to discuss the incident
2. Discussion between the student and a counselor or intervention assistance team
3. Discussion between the student and the Chief Executive Officer or Principal
4. Lunch detention or series of detentions
5. Notice to parent(s) or guardian(s) informing them of the student's behavior
6. Temporary assignment to a disciplinary or "cooling off" location
7. Temporary assignment to a different class setting
8. Supervised mediation between any and all students involved in the incident
9. **Social Probation** which may include temporary or permanent restrictions on activities, including denial of participation in recess, school-sponsored or school-related activities, field trips and/or extracurricular activities
10. Temporary or permanent removal from transportation services in cases involving conduct while using transportation
11. Placement of the student in an alternative educational program
12. Referral to an appropriate counseling program within the school district of residence or another community mental health program
13. In-school suspension (EDGE)
14. Out-of-school suspension
15. Expulsion

No Student Visitors

No non-LEAD Academy students are permitted to visit The school during school hours. This includes any request to “shadow” a The school student or staff member.

Searches and Seizures

Students have the right to be free from unreasonable searches and seizures. However, all lockers or other storage areas that are owned or leased by or licensed through the School are to be considered property of the School for the purpose of this Code. No student may use his/her locker or storage area as a depository for anything of value, any substance, item or object that is prohibited by this Code or any federal, state or local law. No student may use his/her locker or storage area for any substance, item or object that constitutes or may constitute a threat to the health, safety or welfare of any member of the school community, or that may be disruptive or otherwise in violation of the School’s Rules.

The School has the authority to search a student’s locker or storage area if a member of the School’s faculty, staff or administration has reason to believe that the locker or storage area is being used for storage of any prohibited substance, item or object, of any contraband, or of any substance, item or object which poses a threat to the health, safety or welfare of any occupant of the school building(s), any member of the school community, or to the structural integrity of the school building(s), or is disruptive or otherwise in violation of the School’s Rules.

Food or Beverages

No food or beverages are permitted outside the atrium. Bottled water is the exception to this rule in designated areas. No beverages are permitted in the theaters at any time.

Hall Passes

Students are not permitted in the halls during class periods unless they are accompanied by a teacher or have a hall pass from an authorized staff member. The hall pass must be initialed by the teacher of record. This includes requests to miss all or part of a scheduled class.

Electronic Devices

The use of electronic devices where supportive of the general welfare and the instructional program of the school is endorsed. However, the use of electronic devices by students has been found not only disruptive but, in many instances, contributory to illegal purposes. Students are permitted to have cell phones. However, a student’s cell phone is to be turned off during class time. The school will not assume responsibility for the loss or theft of electronic devices. In an emergency situation, parents may call the

main office number to leave a message for their child. Please do not call your child's cell phone during school hours. All other messages will be delivered to your child.

Student fundraising

Any fundraising in the school must be approved by the principal and the board of Directors.

College Visitations

All requests for college visitation should be arranged with your counselor PRIOR to your actual visit. Approval forms will be issued by your counselor. Failure to receive advanced approval will result in an unexcused absence and denial of the privilege to make any additional college visits or to complete make-up work missed during the visit.

Discipline of Students with Disabilities

The Charter School shall comply with the Individuals with Disabilities Education Improvement Act (IDEA 2004) and any applicable federal and state statutes or regulations when disciplining students with disabilities. Students with disabilities who engage in inappropriate behavior, disruptive or prohibited activities, and/or conduct injurious to themselves or others shall be disciplined in accordance with their Individualized Education Programs (IEP), behavioral intervention plan, Title 22 Chapter 711 and relevant portions of Chapter 12 of the State Board of Education Regulations, IDEA 2004, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, and any other applicable federal or state law.

No student with a disability shall be expelled from the Charter School if the student's misconduct is determined to be a manifestation of the student's disability.

School personnel may remove a student with a disability who violates this Code from his/her current placement to an appropriate interim alternative educational setting, to another setting, or may suspend the student for not more than ten (10) school days to the same extent as those alternatives are applied to typical students. When determining whether to change the placement of a student with a disability who has violated this Code, school personnel may consider any unique circumstances on a case-by-case basis.

If school personnel seek to change the placement of a child with a disability due to a violation of this Code, the school, parent(s) and relevant members of the IEP Team must review all relevant information, including the student's IEP, teacher observations, and information provided by the parent(s), to determine whether the student's conduct was a manifestation of his/her disability. This manifestation determination must take

place within ten (10) days of the date on which the decision was made to change the student's placement. A student's conduct will be considered a manifestation of his/her disability if:

- The conduct in question was caused by, or had a direct and substantial relationship to the child's disability, **or**
- The conduct in question was the direct result of the School's failure to implement the IEP.

If the student's conduct is determined not to have been a manifestation of the student's disability, the student may be disciplined to the same extent as are typical students. If the conduct is determined to have been manifestation of the student's disability, the IEP Team must:

1. Conduct a functional behavioral assessment and implement a behavioral intervention plan, if one had not already been conducted;
2. Review a behavioral intervention plan that was already created, and modify it to address the behavior; **and**
3. Return the student to the placement from which he/she was removed, unless the parent(s) and School agree to a change in placement as part of a modification to the behavioral intervention plan.

In certain circumstances, students with disabilities may be removed to an interim alternative educational setting for not more than 45 days regardless of whether the behavior was manifestation of the student's disability. Such cases include, and are limited to, circumstances in which:

1. A student with a disability carries or possesses a weapon to or at school, on school premises, or to or at a school function;
2. A student with a disability knowingly possesses or uses illegal drugs, or sells or solicits the sale of a controlled substance while at school, on school property, or at a school function; **and**
3. A student has inflicted serious bodily injury upon another.

Regardless of whether the student's conduct is found to have been a manifestation of the student's disability, the parent(s) of the student must be notified of all procedural safeguards available to them under federal and state law no later than the date on which the decision to take disciplinary action against the student with a disability was made.

If the parent(s) of a student with a disability disagree with the manifestation determination or decision regarding appropriate placement for their child, or the School believes that the current placement of the student is substantially likely to result in injury to the student or another, a hearing may be requested. A hearing officer will hear and make a determination regarding the above issues at the hearing. The hearing officer may order a change of placement for the student. During the appeal process the student will remain in the interim alternative setting to which he/she was initially removed until 45 days elapses or the parent(s) and School agree otherwise.

Any hearing requested will take place on an expedited basis, and will occur within twenty (20) school days from the date the hearing was requested, with decision rendered within (10) school days thereafter.

Children who have not yet been determined to be eligible for a special education and related services under IDEA 2004 and who violate this Code may claim the protections afforded students with disabilities if the School had knowledge that the student had a disability prior to the behavior at issue. However, if the School had no knowledge that the student had a disability, the student may be disciplined as a typical student.

Regardless of status as a student with a disability, the School may report a crime that was committed by a student with a disability, and federal, state and/or local law enforcement and judicial authorities may exercise the powers afforded them under federal, state and/or local law in prosecuting such a crime.

Anti-Discrimination/Anti-Harassment

Students at the Charter School have the right to education in an environment that is free from harassment and discrimination. Harassment occurs when a student demands a sexual favor, or otherwise threatens, intimidates, annoys, alarms, causes substantial emotional distress, or creates a hostile environment for another based on the other's gender, age, race, color, national origin, religion, disability, socioeconomic status or beliefs. Discrimination occurs when a rule or established practice confers privileges on or denies privileges to a particular class of persons based on race, age, gender, national origin, religion, disability, socioeconomic status or beliefs.

If a student believes he/she is the victim of harassment or discrimination, he/she shall report the alleged harassment or discrimination to the Chief Executive Officer or Principal, or to another Administrator if the Chief Executive Officer or Principal is the accused. Any student who believes he/she is the victim of harassment or discrimination may likewise make a complaint to the Board of Directors in accordance with the Complaint Policy established by the Board. The School and/or the Board of Directors will undertake to investigate the student's complaint thoroughly and completely, and will maintain confidentiality to the extent allowed by federal, state or local law and the policies established by the Board of Directors of the Charter School.

Nothing in this Code shall be construed to discourage or prohibit a student who feels he/she has been the subject of criminal activity or a criminal offense from contacting the police or other appropriate authority.

To the extent anything in this Code could be construed to conflict with federal and; or state law, the federal and/or state law applies.

ATTACHMENT-9

Discipline Policy and Notification

Attachment-9

Discipline Policy and Notification

Disciplinary Action

Social Probation

Social Probation is an effective learning technique to assist students in learning to make wise decisions and realizing the negative consequences of poor decisions. The purpose of social probation is to encourage students to act in a responsible and respectful manner.

A student may be placed on Social Probation for a period of time as a result of inappropriate behavior, attendance issues, failing to act in a safe and responsible manner or violations of school rules and regulations, school board policy or the law. The principal or members of the administrative team will determine when and for how long Social Probation will be assigned to a student. The student and parents /guardian will be notified in writing and all due process procedures will be followed when social probation is assigned to a student.

Social Probation at LEAD Academy can include all or part of the following:

- 1) Not allowed to attend as a spectator or participant any school related activities after school hours or on weekends.
- 2) Not allowed to participate in any co-curricular, extra-curricular, athletic, social (dances and clubs), field trips, musical, artistic, dramatic, or any school related performances or events.
- 3) Not allowed in school or on school property outside of normal school hours.
- 4) Not allowed to participate in school related ceremonial events such as commencement, banquets and prom.
- 5) Limited hall pass privileges.

Participation in these school related activities is a privilege and not an absolute right.

Detention: Retaining the student after school hours with the parent and/or student being responsible for transportation of the student at the end of the detention period

Suspension: Exclusion from school for a period of between one (1) and ten (10) consecutive school days.

No student may be suspended until the student has been informed of the reason(s) for the suspension and has been given an opportunity to respond, except when the health, safety or welfare of the school community is threatened. The parent(s) of a student will be notified immediately when their child has been suspended. Suspensions must not be made to run consecutively for a period of more

than ten (10) school days. If a suspension is to exceed three (3) school days, the student and parent(s) must be given the opportunity for an informal hearing within the first five (5) days of the suspension.

With respect to the informal hearing, the School must provide the following to the student and/or the parent(s) guardian(s) to comport with due process:

1. Written notification of the reasons for the suspension;
2. Sufficient notice of the time and place of the informal hearing;
3. An opportunity to question any witness present at the hearing; and
4. An opportunity to speak and present witnesses on his/her own behalf

Students have the responsibility to make up assignments, assessments and/or projects missed during the period of suspension within the guidelines set forth by the Board of Directors of the Charter School.

EDGE (Engaging Discipline and Guidance into Education): Exclusion from normal classes for a period that may exceed ten (10) consecutive school days, which takes place on school property. A student may not be given an EDGE assignment unless the student has been informed of the reasons for the EDGE assignment and has been given the opportunity to respond before the EDGE assignment becomes effective. Communication to the parent(s) must follow any EDGE assignment action taken by the school. If the EDGE assignment is for a period of more than ten (10) consecutive school days, an informal hearing with the Chief Executive Officer or Principal must be offered to the parent (s) or guardian (s) prior to the eleventh (11th) school day.

Out-of-School Suspension: Exclusion from school for a period of one (1) to ten (10) consecutive school days which takes place off of school property.

Expulsion: Exclusion from school by the Board of Directors for a period exceeding ten (10) school days, or permanent expulsion from the school rolls. The student and parent (s) must be provided with a formal hearing prior to expulsion and all due process procedures must be followed. A student will be placed in his/her normal class during the period prior to the formal hearing and decision of the Board, except when an informal hearing reveals that the student's presence poses a threat to the health, safety, welfare or morals of others, and a formal hearing cannot be conducted within the period of the expulsion. In such a case, a student may be excluded for a period longer than ten (10) days as long as the formal hearing is not unreasonably delayed, and the student will be provided with alternative education.

The formal hearing required for all expulsions may take place before the Board of Directors, an authorized committee of the Board, or a qualified hearing examiner appointed by the Board. If the formal hearing is conducted before a committee of the Board or a hearing examiner, a majority vote of the Board is required to expel the student. The School must provide the following to comport with due process:

1. Notification of the charges sent via certified mail;

2. Sufficient notice (at least 3 days) of the time and place of the hearing;
3. The opportunity for a private hearing, unless the student or parent requests a public hearing;
4. The names of witnesses against the student and copies of any affidavits or statements of those witnesses;
5. The opportunity for the student to request that any witnesses appear in person to answer questions;
6. The right to testify and present witnesses on his/her own behalf; and
7. The opportunity to receive a record of the hearing at his/her own expense.

In addition, the student has the right to be represented by counsel, and the hearing must be held with all reasonable speed.

Disciplinary Measures for Violations of Rules

Students who are found to have engaged in conduct in violation of any one or more Level I Rules may be subject to one or more of the following consequences, intervention or disciplinary measures, or other measures deemed appropriate, reasonable and/or necessary by appropriate school personnel:

1. Discussion between the student and a teacher to discuss the incident
2. Discussion between the student and a counselor or intervention assistance team
3. Discussion between the student and the Chief Executive Officer or Principal
4. Lunch detention or series of detentions
5. Notice to parent(s) or guardian(s) informing them of the student's behavior
6. Temporary assignment to a disciplinary or "cooling off" location
7. Temporary assignment to a different class setting
8. Supervised mediation between any and all students involved in the incident
9. **Social Probation** which may include temporary or permanent restrictions on activities, including denial of participation in recess, school-sponsored or school-related activities, field trips and/or extracurricular activities
10. Temporary or permanent removal from transportation services in cases involving conduct while using transportation
11. Placement of the student in an alternative educational program
12. Referral to an appropriate counseling program within the school district of residence or another community mental health program
13. In-school suspension (EDGE)
14. Out-of-school suspension
15. Expulsion

ATTACHMENT-10

Resume of Biography of the Principal

No candidate has been identified as Principal

ATTACHMENT-11

Job Description for Principal

Attachment-11: Job Description for Principal

Overview

The Principal of proposed school shall be a visionary instructional leader who will engage with school community, achieve high academic standards, and develop a model school in Montgomery county. S/he will have an understanding of and experience with instructional technology, literacy, special education and ELL, the creation of project-based curriculum, and working in diverse communities.

The Principal will create and maintain a school culture that challenges and motivates our students, teachers, and families to achieve academic goals, develop career aspirations, and positively impact the communities in which they live. S/he will have a commitment to the shared vision and mission of our school.

Primary Role and Purpose: Operate as the educational leader and chief educational officer of the charter while implementing policies set by the Board of Directors. Assume administrative responsibility for the planning, operation, supervision, and evaluation of the education programs, services, facilities of the charter, and for the annual evaluations of the charter staff.

Responsibilities

Academics and Instruction: Guides instructional staff to improve teaching and learning by providing teacher support and designing professional development. Ensures that all students are learning and that there are no gaps in student achievement among subgroups.

- Provides instructional leadership, coaching, and support to teachers who are working with a diverse student body.
- Ensures the use of a wide array of assessments that, together, reflect the educational philosophy of the school that also prepare students to excel on standardized measures.
- Uses multiple sources of data to develop a plan for the ongoing improvement of student achievement.

Culture: Defines and builds a school culture consistent with the highest of principles of citizenship; manages student discipline; and promotes an open dialogue with students, their families and staff.

Staff: Recruits, hires, manages, and develops the school's leadership, instructional team, operational, and support staff.

- Builds a culture of relentless self-improvement and adaptive leadership among the entire school.
- Recruits and hires mission aligned, qualified instructional and operational staff.

- Manages the staff performance review and compensation review processes.
- Addresses staff concerns urgently and with mission-aligned, student-focused responses.
- Ensures on-going design and implementation of staff professional development

Community: Establishes and maintains strong relationships with teachers, students, parents, community members, and the staff at of the Charter School.

- Ensures that all members of the school community are engaged and valued.
- Communicates the school’s vision and goals in a way that ensures understanding and commitment from a racially, culturally, and socioeconomically diverse community of parents, students, faculty, staff, and board members.
- Oversees the development and implementation of varied forms of communication with families.
- Maintains positive relationships with the Alabama Department of Education, Montgomery County School District and with service providers and educational management organizations. The candidate serves as an active leader in the charter school community—learning from others and sharing best practices.

Operations, Finances, and Compliance: Ensures compliant, effective, and efficient school-based operations that support an academically high- performing school environment.

- Manages and supports school operations staff.
- Reports on activities, organizational development progress, and student achievement to the school’s board, and to the Alabama Department of Education and to the local school district.
- Works with the board to draft and monitor the school’s budget and ensure daily financial and business activities are compliant with the school’s fiscal policies.
- Ensures school alignment and/or progress toward alignment with organizational goals for diversity.

Staff and Reporting Relationships

The Principal shall formally report to the president of board of Directors and the EMO. S/he will work closely with EMO Liaison/representative for day-to-day operation.

Qualifications

Candidates must have:

- A clear record of elevating student achievement in an urban classroom for at least two years, with a strong understanding of pedagogy that drives results *or* of exceptional leadership working with young people in urban communities.

- Master's degree or PhD preferred
- At least 3 years of relevant teaching experience, with demonstrated student results
- Alabama School educational leadership or building leader experience preferred

Skills/Traits

The Principal must:

- Knowledge of school law, finance, and curriculum.
- Able to manage budget and personnel.
- Able to interpret policy, procedures, and data.
- Have an entrepreneurial spirit and be capable of managing many complex tasks with competing priorities.
- Possess strong leadership and team management skills.
- Possess strong interpersonal and communication skills.
- Be organized and self-managed, be able to handle many responsibilities simultaneously.
- Have excellent problem-solving skills.
- Be committed to building a community of collaboration with a diverse group of stakeholders.
- A self-aware leader who knows how to treat all members of the school's community with respect, appraises accurately his or her strengths and weaknesses, and is perceptive about how they are regarded.
- Be dependable and have excellent follow-through.
- Be aligned with the education philosophy and the school's mission.
- A strong personal commitment to ongoing learning and growth.
- An effective and persuasive communicator, orally and in writing.

ATTACHMENT-12

Job Description for other Management Positions

Attachment-12: Job Description for Leadership and Management Positions, Roles and Responsibilities beyond Principal

Each LEAD Academy personnel hired regardless of his/her title will have a firm commitment to;

- 1) supporting high-quality standards in education for all students,
- 2) be an individual and/or team-work participant toward the school's goals, and
- 3) respect for all members of the school community.

Principal: Reports directly to the Board of Directors. The Principal will work closely with the Education Management Company in the day to day operations of the School. In addition to being the academic and instructional leader is responsible for developing and implementing school Mission, Vision, and Strategic Planning as developed by and with the Board of Directors. Oversees all academic and operational aspects of school. Creates a school culture of achievement, and nurtures a strong relationship among staff, families, and students; the Board of Directors; and the School. Works with the broader online community and state leaders to expand and enhance learning opportunities for all families.

ASSISTANT PRINCIPAL:

Assistant Principal reports directly to the Principal. Contributing directly to the School Success, mission, vision, values and goals and directly rooted in current best practices/research. Conduct activities directly impacting instruction which include but are not limited to conducting classroom observations, engaging in coaching and feedback conversations, delivering professional development, collaborating in team planning and professional learning communities. Responsible for managing all school data including the student information system, student files, and other data required for school compliance with local, state, and federal reporting requirements.

Primary Role and Purpose: Assist Principal in instructional program administration, human resources organizations, student activities and services.

Skills:

- Working knowledge of charter operations.
- Exceptional organizational, communication and interpersonal skills.
- Capable of coordinating charter support operations.

Responsibilities and Duties:

Share supervisory duties for charter professional staff with charter principal. Oversee teachers, custodians, paraprofessionals, clerical personnel and others as assigned.

Instructional Management

- Assist in planning and assessing the educational programs.
- Encourage planning of innovative education programs, assist teachers in implementing such efforts when appropriate.
- Encourage the use of technology in the instructional process.

Charter Atmosphere

- Encourage a constructive, thoughtful climate for learning.
- Promote fairness of students and staff from all cultural backgrounds.
- Communicate with students and staff in an effective manner.

Charter Improvement

- Assist in organization of school improvement plan with staff, parents and community members.
- Help principal design, manage and implement information systems to manage and track progress on charter goals and academic excellence indicators.

Personnel Management

- Hold employee evaluation conferences based on records of performance evaluation.
- Assist principal in interviewing, selecting and orienting new charter employees.

Administration and Fiscal/Facilities Management

- Oversee charter operations in principal's absence.
- Assist in scheduling student activities by participating in the development of class schedules, teacher assignments and extracurricular activity schedules.
- Oversee student attendance records and assist the attendance clerk on truancy issues.
- Requisition supplies, textbooks and equipment; verify inventory; manage records; and confirm receipts for materials.
- Aid in safety drill practices and inspections.
- Manage support services including transportation, custodial and cafeteria.
- Abide by all federal and state laws that apply to charter schools and charter policy.

Student Management

- Provide for supervision of students during non-instructional hours.
- Help students develop positive behavior through a student discipline management system.
- Provide for uniform enforcement of school rules and oversee appropriate and reasonable student discipline.
- Hold parent/teacher/student conferences in regard to student and school issues.
- Demonstrate use of productive and efficient skills to raise community and parent involvement.

BUSINESS MANAGER:

Business Manager will be the EMO's (Unity School Services) employee. S/he will be responsible for coordinating all operational aspects of the school; school compliance with local, state, and federal reporting requirements; managing development of school policies and procedures; managing school metrics reporting student information system; coordinating with teachers and student information system regarding expulsions and withdrawals; coordinating student placement during enrollment/re-enrollment efforts; managing annual enrollment and re-enrollment efforts; supporting the Academic Director with teacher recruitment and hiring efforts; school administration meetings (business-related topics); logging and reporting issues pertaining to technology, materials delivery, enrollment, and student/family service for process improvement. Also responsible for managing technology, hardware and software, used by teachers, administrators and students.

Primary Role and Purpose: Oversee and maintain the operation of all financial and business affairs of the charter including accounting, payroll, purchasing, and risk management and act as the chief financial advisor to the principal and the board. Business manager must have an understanding of school accounting principles.

Skills:

Applicable knowledge of school finance, budgeting, accounting systems, and economics.

- Effective communication, public relations, and interpersonal skills.
- Knowledge of personal computers and software to compile spreadsheets, perform data analysis, and do word processing.
- Capable of interpreting policy, procedures, and data.
- Capable of managing budget and personnel.
- Capable of coordinating charter activities.

Responsibilities and Duties:**Fiscal Management**

Ensure that the principal is advised on the business affairs of the charter school.

- Analyze accounting practices, systems, and controls in all charter departments and advise on improvements in their structure, implementation, and maintenance.
- Manage a revolving auditing program for all funds and work with the charter's independent and internal auditors while conducting audits.
- Maintain accounting systems that comply with laws and regulations.
- Devise period cash flow analysis to determine cash available for investment and payment of bills.
- Supervise monthly bank settlement preparations for the operating, special revenue, debt service, construction, tax, cafeteria, and athletic accounts. Audit statements of vendor and payroll clearing accounts.
- Compile and enter all budget adjustments, additions, and deletions.
- Assess and authorize all purchase orders and check requests and manage budget by certifying availability of funds.
- Help with drafting of budget and assessing the long- and short-range objectives for the business operations of the charter.
- Oversee needs evaluation for the enhancement of the charter business operations.

- Collaborate with charter personnel to project student enrollments, staff needs, building and facility's needs, energy needs, capital equipment needs and other cost items for the charter and individual school improvement.
- Monitor the business office budget and see that programs are cost effective and funds are managed effectively.
- Act as charter leader to achieve cost-effective practices throughout the school.
- Confirm that business operations support the charter mission.

Documentation and Law

- Ensure policies established by federal and state law that apply to charter schools and local board policy in area of business operations are being followed.
- Manage all hardcopy and computerized reports, records, and other documents required.
- Compile and review monthly financial statements and budget reports.
- Draft comprehensive annual financial report.
- Compile semi-annual financial reports for submission.
- Draft quarterly and final reports for all federal funds.

Inventory

- Ensure accurate computerized inventory records of all of the charter's assets.
- Maintain and direct sales of surplus salvage equipment for disposal.
- Oversee maintenance of replacement cost-asset inventory for insurance purposes.
- Receive and register bids, calculate results and draft written recommendations.
- Oversee the drafting of bids and bid specifications.

Personnel Management

- Compile, check and revise business department job descriptions.
- Devise training options and/or improvement plans to maintain superior business operations.
- Assess job performance of employees to maintain effectiveness.
- Oversee personnel and make accurate recommendations in regards to assignments, retention, discipline, and dismissal.

Community Affairs

- Show knowledge of charter and community needs and implement programs to meet those needs.

Supervisory Responsibilities:

Supervise and assess the performance of the risk manager, purchasing manager, bookkeeper, accounts payable clerk, and payroll clerk.

Job Related Conditions:

- Maintain control in stressful situations.
- Travel may be required.
- Extended and irregular hours.

SPECIAL EDUCATION TEACHER:

Special Education teacher/coordinator reports to Principal and will receive the same training and professional development as the regular education teachers. Responsible for coordinating the IEP team and developing effective IEPs with appropriate content, instructional modifications, assessment modifications, and measurable goals. They will assure that deadlines are met for every student, student records are maintained in compliance with state requirements, and services are being provided in accordance with each IEP. They will also coordinate the provision

of services on campus and over the Internet with the regular education teacher and any related service providers.

The primary role and responsibility is to provide services to special education students with appropriate learning activities and experiences that will enable them to fulfill their potential for intellectual, emotional, physical and social growth. The Special Education teacher will develop student ability level instructional materials through modified curriculum and prepared lesson plans. Special Education teacher will conduct work in self-contained, team, departmental or itinerant capacity as necessary.

Skills:

- Complete knowledge of special needs of students in assigned area.
- Complete knowledge of Individual Education Plan (IEP) goal setting process and implementation.
- Working knowledge of curriculum and instruction.

Responsibilities and Duties:

Instructional Strategies

- Work in conjunction with students, parents and other members of staff to develop IEPs process for each student assigned.
- Design, write and use instructional, therapeutic or skill development program for assigned students and ensure written plan is available for review.
- Ensure comprehension of learning styles and student needs are met through creation and implementation of appropriate instructional and learning strategies, activities, materials and equipment.
- Collaborate with classroom teacher on student IEP to ensure all modifications are met and help special education students in regular class when appropriate.
- Participate in IEP Committee meetings on an ongoing basis.
- Design instructional activities by using data from students learning styles assessment.
- Ensure IEP guidelines are met when presenting subject matter.
- Use an assortment of media and techniques to meet the needs and capabilities of each student assigned.
- Produce and oversee the teacher aide and volunteer assignments.
- Employ technology practices to strengthen the instructional process.

Growth and Development

- Produce formal and informal testing to evaluate student success.
- Oversee or ensure personal care, medical care and feedings of students as stated in IEP.
- Manage and care for all extracurricular duties as assigned. Sponsor outside activities approved by charter principal.
- Serve as an example for students; support mission of charter.

Classroom Management

- Prepare classroom to enhance learning and aid in the physical, social and emotional development of the students.
- Control student behavior and implement discipline plan. This includes handling crisis situations and physically restraining students as necessary according to IEP.
- Collaborate with the classroom teachers regarding student behavior management programs according to IEP.
- Collaborate with charter and outside resource people regarding education, social, medical and personal needs of student.
- Ensure necessary and reasonable measures are taken to protect students, equipment, materials and facilities.
- Provide input on books, equipment and material selection.

Communication

- Ensure good communication rapport with parents, students, principals and teachers through conferences.
- Create and maintain a professional relationship with colleagues, students, parents and community members.
- Present information accurately through clear communication skills.

Other

- Enrich job skills through professional development activities.
- Keep up to date and abide by federal, state and charter policies for special education teachers.
- Gather, manage and file all reports, records and other documents required.
- Be active in faculty meetings and assist in staff committees as required.

Job Related Conditions:

- Maintain control in stressful situations.
- Some lifting may be required.
- May be required to restrain students to control behavior.

ATTACHMENT-13

Proof of 501-c-3 Application



Find Forms, Agencies... Search

MAKE A PAYMENT

FIND AN AGENCY

ONLINE HELP

My Forms

Submitted (1)	Saved (1)
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Sort by

Streamlined Application for Recognition of Exemption Under Section 501(c)(3)

Application for tax exemption using the 1023EZ
Form Number: 1023-EZ Payment Form
Form Status: Accepted
Pay.gov Tracking ID: 266FB171
Date Submitted: 12/09/2017 16:20:02 PM
Application Name: Form 1023-EZ

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**Streamlined Application for Recognition of Exemption
Under Section 501(c)(3) of the Internal Revenue Code**

Do not enter Social Security numbers on this form as it will be made public.

Information about Form 1023-EZ and its separate instructions is at www.irs.gov/form1023

Note: If exempt status is approved, this application will be open for public inspection.

Check this box to attest that you have completed the Form 1023-EZ Eligibility Worksheet in the current instructions, are eligible to apply for exemption using Form 1023-EZ, and have read and understand the requirements to be exempt under section 501(c)(3).

Part I Identification of Applicant

1a Full Name of Organization LEAD EDUCATION FOUNDATION				
b Mailing Address (number, street, and room/suite). If a P.O. box, see instructions. [REDACTED]		c City MONTGOMERY	d State AL	e Zip code + 4 36109-0000
2 Employer Identification Number 82-3528049	3 Month Tax Year Ends (MM) 09	4 Person to Contact if More Information is Needed CHARLOTTE MEADOWS		
5 Contact Telephone Number 334-[REDACTED]		6 Fax Number (optional) 334-272-6019	7 User Fee Submitted \$275.00	
8 List the names, titles, and mailing addresses of your officers, directors, and/or trustees. (If you have more than five, see instructions.)				
First Name: CHARLOTTE		Last Name: MEADOWS		Title: CHAIRMAN
Street Address: [REDACTED]		City: MONTGOMERY	State: AL	Zip code + 4: [REDACTED]
First Name: RYAN		Last Name: CANTRELL		Title: VICE CHAIRMAN/TREASURER
Street Address: [REDACTED]		City: [REDACTED]	State: AL	Zip code + 4: [REDACTED]
First Name: LORI		Last Name: WHITE		Title: SECRETARY
Street Address: [REDACTED]		City: [REDACTED]	State: AL	Zip code + 4: 3-[REDACTED]
First Name: WILLIAM A		Last Name: GREENE JR		Title: DIRECTOR
Street Address: [REDACTED]		City: MONTGOMERY	State: AL	Zip code + 4: [REDACTED]
First Name:		Last Name:		Title:
Street Address:		City:	State:	Zip code + 4:
9a Organization's Website (if available):				
b Organization's Email (optional):				

Part II Organizational Structure

- To file this form, you must be a corporation, an unincorporated association, or a trust. **Select the box** for the type of organization.
 Corporation Unincorporated association Trust
- Check this box** to attest that you have the organizing document necessary for the organizational structure indicated above. (See the instructions for an explanation of **necessary organizing documents**.)
- Date incorporated if a corporation, or formed if other than a corporation (MMDDYYYY): 11282017
- State of Incorporation or other formation: Alabama
- Section 501(c)(3) requires that your organizing document must limit your purposes to one or more exempt purposes within section 501(c)(3).
 Check this box to attest that your organizing document contains this limitation.
- Section 501(c)(3) requires that your organizing document must not expressly empower you to engage, otherwise than as an insubstantial part of your activities, in activities that in themselves are not in furtherance of one or more exempt purposes.
 Check this box to attest that your organizing document does not expressly empower you to engage, otherwise than as an insubstantial part of your activities, in activities that in themselves are not in furtherance of one or more exempt purposes.
- Section 501(c)(3) requires that your organizing document must provide that upon dissolution, your remaining assets be used exclusively for section 501(c)(3) exempt purposes. Depending on your entity type and the state in which you are formed, this requirement may be satisfied by operation of state law.
 Check this box to attest that your organizing document contains the dissolution provision required under section 501(c)(3) or that you do not need an express dissolution provision in your organizing document because you rely on the operation of state law in the state in which you are formed for your dissolution provision.

Part III Your Specific Activities

- 1 Enter the appropriate 3-character NTEE Code that best describes your activities (See the instructions): B12
- 2 To qualify for exemption as a section 501(c)(3) organization, you must be organized and operated exclusively to further one or more of the following purposes. By checking the box or boxes below, you attest that you are organized and operated exclusively to further the purposes indicated. **Check all that apply.**
- | | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Charitable | <input type="checkbox"/> Religious | <input checked="" type="checkbox"/> Educational |
| <input type="checkbox"/> Scientific | <input type="checkbox"/> Literary | <input type="checkbox"/> Testing for public safety |
| <input type="checkbox"/> To foster national or international amateur sports competition | <input type="checkbox"/> Prevention of cruelty to children or animals | |
- 3 To qualify for exemption as a section 501(c)(3) organization, you must:
- Refrain from supporting or opposing candidates in political campaigns in any way.
 - Ensure that your net earnings do not inure in whole or in part to the benefit of private shareholders or individuals (that is, board members, officers, key management employees, or other insiders).
 - Not further non-exempt purposes (such as purposes that benefit private interests) more than insubstantially.
 - Not be organized or operated for the primary purpose of conducting a trade or business that is not related to your exempt purpose(s).
 - Not devote more than an insubstantial part of your activities attempting to influence legislation or, if you made a section 501(h) election, not normally make expenditures in excess of expenditure limitations outlined in section 501(h).
 - Not provide commercial-type insurance as a substantial part of your activities.
- Check this box** to attest that you have not conducted and will not conduct activities that violate these prohibitions and restrictions.
- 4 Do you or will you attempt to influence legislation? _____ Yes No
(If yes, consider filing Form 5768. See the instructions for more details.)
- 5 Do you or will you pay compensation to any of your officers, directors, or trustees? _____ Yes No
(Refer to the instructions for a definition of **compensation**.)
- 6 Do you or will you donate funds to or pay expenses for individual(s)? _____ Yes No
- 7 Do you or will you conduct activities or provide grants or other assistance to individual(s) or organization(s) outside the United States? _____ Yes No
- 8 Do you or will you engage in financial transactions (for example, loans, payments, rents, etc.) with any of your officers, directors, or trustees, or any entities they own or control? _____ Yes No
- 9 Do you or will you have unrelated business gross income of \$1,000 or more during a tax year? _____ Yes No
- 10 Do you or will you operate bingo or other gaming activities? _____ Yes No
- 11 Do you or will you provide disaster relief? _____ Yes No

Part IV Foundation Classification

Part IV is designed to classify you as an organization that is either a private foundation or a public charity. Public charity status is a more favorable tax status than private foundation status.

- 1 If you qualify for public charity status, check the appropriate box (**1a - 1c** below) and skip to **Part V** below.
- a **Select this box** to attest that you normally receive at least one-third of your support from public sources or you normally receive at least 10 percent of your support from public sources and you have other characteristics of a publicly supported organization. **Sections 509(a)(1) and 170(b)(1)(A)(vi).**
 - b **Select this box** to attest that you normally receive more than one-third of your support from a combination of gifts, grants, contributions, membership fees, and gross receipts (from permitted sources) from activities related to your exempt functions and normally receive not more than one-third of your support from investment income and unrelated business taxable income. **Section 509(a)(2).**
 - c **Select this box** to attest that you are operated for the benefit of a college or university that is owned or operated by a governmental unit. **Sections 509(a)(1) and 170(b)(1)(A)(iv).**
- 2 If you are not described in items **1a - 1c** above, you are a private foundation. As a private foundation, you are required by section 508(e) to have specific provisions in your organizing document, unless you rely on the operation of state law in the state in which you were formed to meet these requirements. These specific provisions require that you operate to avoid liability for private foundation excise taxes under sections 4941-4945.
- Select this box** to attest that your organizing document contains the provisions required by section 508(e) or that your organizing document does not need to include the provisions required by section 508(e) because you rely on the operation of state law in your particular state to meet the requirements of section 508(e). (See the instructions for explanation of the section 508(e) requirements.)

Part V Reinstatement After Automatic Revocation

Complete this section only if you are applying for reinstatement of exemption after being automatically revoked for failure to file required annual returns or notices for three consecutive years, and you are applying for reinstatement under section 4 or 7 of Revenue Procedure 2014-11. (Check only one box.)

- 1 **Check this box** if you are seeking retroactive reinstatement under section 4 of Revenue Procedure 2014-11. By checking this box, you attest that you meet the specified requirements of section 4, that your failure to file was not intentional, and that you have put in place procedures to file required returns or notices in the future. (See the instructions for requirements.)
- 2 **Check this box** if you are seeking reinstatement under section 7 of Revenue Procedure 2014-11, effective the date you are filling this application.

Part VI Signature

I declare under the penalties of perjury that I am authorized to sign this application on behalf of the above organization and that I have examined this application, and to the best of my knowledge it is true, correct, and complete.

CHARLOTTE MEADOWS

(Type name of signer)

CHAIRMAN

(Type title or authority of signer)

12082017

(Date)

ATTACHMENT-14

Board Policies

Currently only Conflict and Interest Policy is available. Upon approval of the charter, the Board will develop all others.

LEAD EDUCATION FOUNDATION CONFLICT OF INTEREST POLICY

Article I Purpose

The purpose of the conflict of interest policy is to protect LEAD Education Foundation's (the "Organization") interest when it is contemplating entering into a transaction or arrangement that might benefit the private interest of an officer or director of the Organization, or might result in a possible excess benefit transaction. This policy is intended to supplement but not replace any applicable state and federal laws governing conflict of interest applicable to nonprofit and charitable organizations.

Article II Definitions

Interested Person

Any director, principal officer, or member of a committee with governing board delegated powers, who has a direct or indirect financial interest, as defined below, is an interested person.

Financial Interest

A person has a financial interest if the person has, directly or indirectly, through business, investment, or family:

- a. An ownership or investment interest in any entity with which the Organization has a transaction or arrangement,
- b. A compensation arrangement with the Organization or with any entity or individual with which the Organization has a transaction or arrangement, or
- c. A potential ownership or investment interest in, or compensation arrangement with, any entity or individual with which the Organization is negotiating a transaction or arrangement. Compensation includes direct and indirect remuneration as well as gifts or favors that are not insubstantial. A financial interest is not necessarily a conflict of interest. Under Article III, Section 2, a person who has a financial interest may have a conflict of interest only if the appropriate governing board or committee decides that a conflict of interest exists.

Article III Procedures

1. Duty to Disclose

In connection with any actual or possible conflict of interest, an interested person must disclose the existence of the financial interest and be given the opportunity to disclose all material facts to the directors and members of committees with governing board delegated powers considering the proposed transaction or arrangement.

2. Determining Whether a Conflict of Interest Exists

After disclosure of the financial interest and all material facts, and after any discussion with the interested person, he/she shall leave the governing board or committee meeting while the determination of a conflict of interest is discussed and voted upon. The remaining board or committee members shall decide if a conflict of interest exists.

3. Procedures for Addressing the Conflict of Interest

a. An interested person may make a presentation at the governing board or committee meeting, but after the presentation, he/she shall leave the meeting during the discussion of, and the vote on, the transaction or arrangement involving the possible conflict of interest.

b. The chairperson of the governing board or committee shall, if appropriate, appoint a disinterested person or committee to investigate alternatives to the proposed transaction or arrangement.

c. After exercising due diligence, the governing board or committee shall determine whether the Organization can obtain with reasonable efforts a more advantageous transaction or arrangement from a person or entity that would not give rise to a conflict of interest.

d. If a more advantageous transaction or arrangement is not reasonably possible under circumstances not producing a conflict of interest, the governing board or committee shall determine by a majority vote of the disinterested directors whether the transaction or arrangement is in the Organization's best interest, for its own benefit, and whether it is fair and reasonable. In conformity with the above determination it shall make its decision as to whether to enter into the transaction or arrangement.

4. Violations of the Conflicts of Interest Policy

a. If the governing board or committee has reasonable cause to believe a member has failed to disclose actual or possible conflicts of interest, it shall inform the member of the basis for such belief and afford the member an opportunity to explain the alleged failure to disclose.

b. If, after hearing the member's response and after making further investigation as warranted by the circumstances, the governing board or committee determines the member has failed to disclose an actual or possible conflict of interest, it shall take appropriate disciplinary and corrective action.

Article IV Records of Proceedings

The minutes of the governing board and all committees with board delegated powers shall contain:

a. The names of the persons who disclosed or otherwise were found to have a financial interest in connection with an actual or possible conflict of interest, the nature of the financial interest, any action taken to determine whether a conflict of interest was present, and the governing board's or committee's decision as to whether a conflict of interest in fact existed.

b. The names of the persons who were present for discussions and votes relating to the transaction or arrangement, the content of the discussion, including any alternatives to

the proposed transaction or arrangement, and a record of any votes taken in connection with the proceedings.

Article V Compensation

- a.** A voting member of the governing board who receives compensation, directly or indirectly, from the Organization for services is precluded from voting on matters pertaining to that member's compensation.
- b.** A voting member of any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from the Organization for services is precluded from voting on matters pertaining to that member's compensation.
- c.** No voting member of the governing board or any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from the Organization, either individually or collectively, is prohibited from providing information to any committee regarding compensation.

Article VI Annual Statements

Each director, principal officer and member of a committee with governing board delegated powers shall annually sign a statement which affirms such person:

- a.** Has received a copy of the conflicts of interest policy,
- b.** Has read and understands the policy,
- c.** Has agreed to comply with the policy, and
- d.** Understands the Organization is charitable and in order to maintain its federal tax exemption it must engage primarily in activities which accomplish one or more of its tax-exempt purposes.

Article VII Periodic Reviews

To ensure the Organization operates in a manner consistent with charitable purposes and does not engage in activities that could jeopardize its tax-exempt status, periodic reviews shall be conducted. The periodic reviews shall, at a minimum, include the following subjects:

- a.** Whether compensation arrangements and benefits are reasonable, based on competent survey information, and the result of arm's length bargaining.
- b.** Whether partnerships, joint ventures, and arrangements with management organizations conform to the Organization's written policies, are properly recorded, reflect reasonable investment or payments for goods and services, further charitable purposes and do not result in inurement, impermissible private benefit or in an excess benefit transaction.

Article VIII Use of Outside Experts

When conducting the periodic reviews as provided for in Article VII, the Organization may, but need not, use outside advisors. If outside experts are used, their use shall not relieve the governing board of its responsibility for ensuring periodic reviews are conducted.

As approved by Unanimous Written Consent of the Board of Directors dated _____, 2017.

LEAD Education Foundation

By: _____

_____, Director

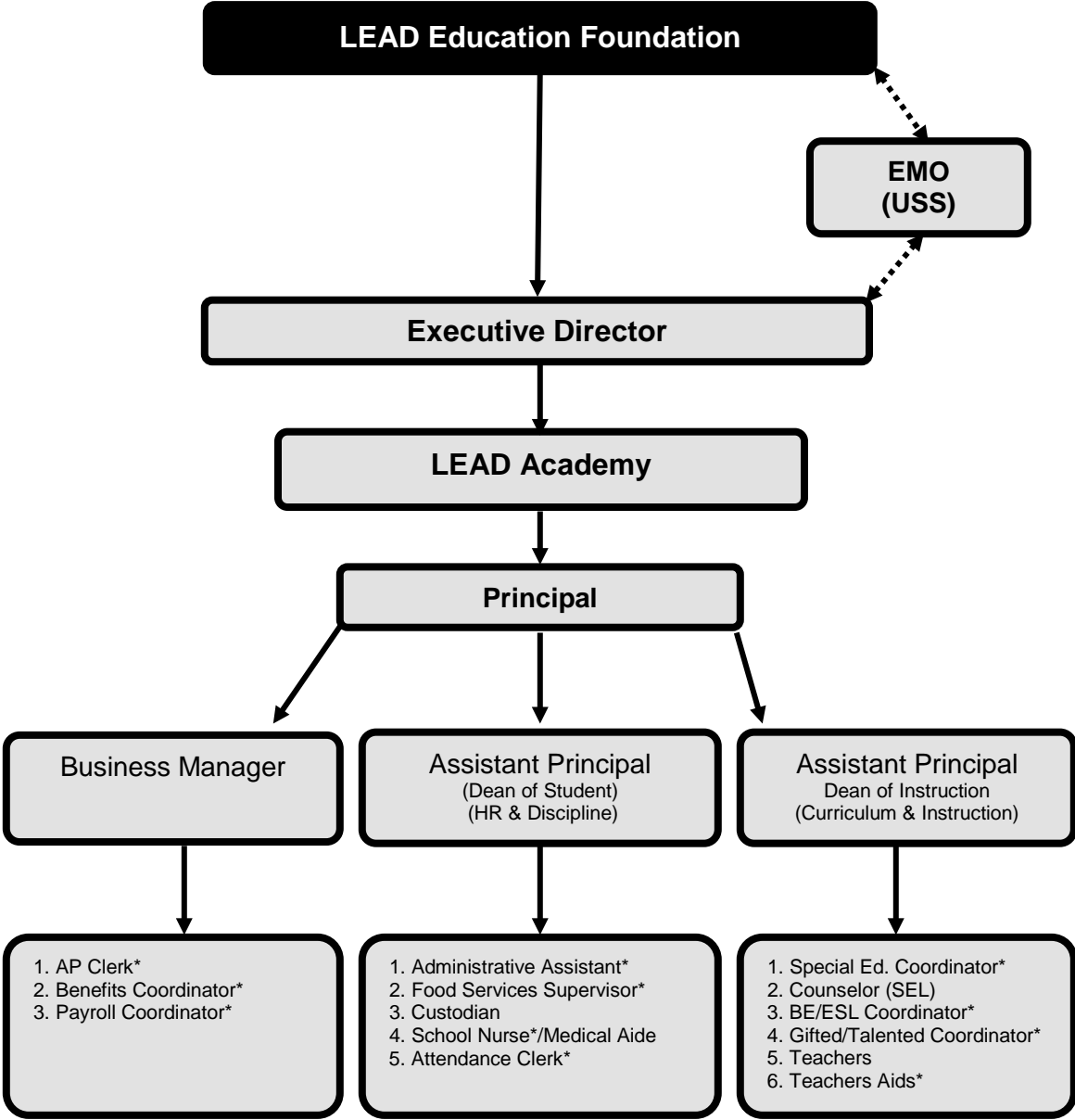
ATTACHMENT-15

Organizational Chart

LEAD ACADEMY

ORGANIZATIONAL CHART

(Proposed DRAFT)



***Please Note:** That the chart above is designed to show administrative functions rather than individual positions. In other words, multiple tasks can be performed by the same person if need arises (i.e. a payroll coordinator can be account payable clerk and benefit coordinator). Additional positions may be created as needed or some of these positions may be outsourced.

ATTACHMENT-16

Bylaws

BYLAWS
OF
LEAD Education Foundation
OF MONTGOMERY COUNTY
an Alabama Not For Profit Organization

November 30, 2017

BYLAWS

ARTICLE I.

PURPOSE AND CORPORATE OFFICES

Section 1.01 Name. The name of the Corporation is LEAD Education Foundation, dba Lead Elementary Academy or LEAD Academy (the Corporation).

Section 1.02 Purpose. The purpose of LEAD Education Foundation of Montgomery County (“LEAD”) shall be to create, manage, operate, guide, direct, and promote one or more Alabama public charter schools in compliance with the Alabama School Choice and Student Opportunity Act, Ala. Code §16-6F-1, et seq, and, generally, to support public education for the citizens of Alabama. The purpose shall include the ability to provide a tax-exempt vehicle for the receipt of gifts and grants to benefit the corporations programs and goals. The organization is organized exclusively for charitable, religious, educational, or scientific purposes under Section 501 (c) (3) of the Internal Revenue Code, or corresponding section of any future federal tax code.

The corporation shall be vested with all powers necessary to accomplish its purposes, as more particularly delineated in Alabama Code Sections 10A-1-2.11, et seq. and 10A-3-2.41, et seq as last amended.

Section 1.03. Principal Office. The principal office of LEAD Education Foundation “LEAD Academy” shall be 539 Paddock Lane, Montgomery, AL 36109. LEAD Academy may also have offices at other places within and without Alabama as the board of directors may from time to time designate.

ARTICLE II.

DIRECTORS

Section 2.01. Number and Qualifications. The business, affairs, and property of LEAD shall

be managed by a board of directors, consisting of not less than three (3) nor more than seven (7) directors. The number of directors may be increased or decreased by action of the board of directors, provided that any action of the directors to effect such increase or decrease shall require the vote of a majority of all of the then-serving directors. No decrease shall shorten the term of any incumbent director. The board shall meet at least four times each year and maintain minutes of all meetings. Directors must be qualified in terms of training, education, and experience, and they must also have the utmost credibility and respect. The members of the board shall reflect the diversity of the community and be qualified in terms of training, education, and experience. Board members will be recruited as a seat becomes available. The board will post vacant board seats on the LEAD website and work with members of the School community and other stakeholders to recruit interested and qualified applicants. The board will seek individuals who are committed to the mission and goals of the School. All board members will agree to oversee operational policies and ensure academic accountability and financial accountability of the School as well as participate in charter school governance training and successfully undergo a background check by the Sponsor as specified by law. Members of the board will be selected by a vote of the majority of the board.

Section 2.02. Election and Term. Directors who are elected at an annual meeting of the board of directors, and directors who are elected in the interim to fill vacancies and newly created directorships, shall hold office for three years unless the member is filling an unexpired term. Newly elected Directors shall attend an orientation as a condition of serving on the board. Directors may be elected to successive terms. Newly created directorships and any vacancies may be filled by a vote of the majority of the remaining directors though less than a quorum of the board of directors. A director may resign at any time upon notice to LEAD.

Section 2.03. Removal. A director may be removed, with or without cause, by a majority vote at a special meeting called for that purpose, or at a regular meeting, provided that notice of that meeting and of the removal questions are posted in compliance with Sunshine laws.

Section 2.04. Resignation. A Director may resign by giving written notice to the Board of Directors directed to the President with such resignation to be effective at the time stated in such notice.

Section 2.05. Annual Meetings. The annual meeting of the board of directors shall be held at a time and place designated by the board of directors. In the event that the annual meeting is omitted by oversight, or otherwise, the directors shall cause a meeting in lieu thereof to be held

as soon thereafter as practical, and any business transacted or elections held at that meeting shall be valid and considered as transacted or held at the annual meeting. An annual organizational meeting shall take place in February each year in order to elect new board members to take office on July 1 of that year as well as other business to come before the board. An annual budget meeting shall take place in May each year in order to determine a budget for the following fiscal year. All meetings of the Board of Directors/committees after the school has been approved will follow the rules of the Alabama Open Meetings Act and will be noticed on the school website/social media pages.

Section 2.06. Other Meetings. The board of directors may provide by resolution for regular periodic meetings. Special meetings of the board of directors may be called at any time by the president or by two (2) or more members of the board of directors. Notice of any regular meeting of the board of directors not provided for by resolution of the board shall be given in writing to each director at least seven (7) days in advance of the meeting. Notice of any special meeting of the board of directors shall be given in writing to each director not less than forty-eight (48) hours before the meeting. Notices shall state the time, place and the purpose, or purposes, for which the meeting is called. Notice of any regular or special meeting of the board of directors may be waived either before or after the time stated in the notice. A waiver of notice in writing signed by the director entitled to notice shall be equivalent to the giving of notice. Attendance of a director at a meeting shall constitute a waiver of notice of the meeting, except where a director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened.

Section 2.07. Quorum of Directors. At all meetings of the board of directors, the minimum number of directors present to constitute a quorum shall be the greater of two (2) directors or one-third of the total number of directors of LEAD. Except as expressly provided otherwise in these Bylaws, any matter may be adopted by a majority vote of those directors present. The act of the majority of the directors present at a meeting at which a quorum is present shall be the act of the board of directors.

Section 2.08. Voting. At all meetings of the board of directors, each director shall have one vote.

Section 2.09. Responsibilities, Powers and Duties.

(a) The board of directors shall be charged with the general authority and responsibility for the management and control of the business and assets of LEAD. The board of directors may, however, delegate its administrative and investing powers and engage a professional manager to handle matters of that nature. The board may employ such consultants, entities and persons it deems advisable and fix the rate of compensation of each.

(b) The duties and powers of the board of directors shall include: approve all policies and procedures used at the School (procurement authority, non-discriminatory hiring and retention, enrollment, etc.); financial review and fiduciary oversight; annually adopt and maintain an operating budget; approve personnel recommendations from the Principal; regular review of student achievement data; review of student discipline procedures and appeals; negotiations and execution of all contracts; ensure compliance of operations in accordance with Alabama laws and Alabama State Department of Education regulations; exercise continuing oversight over charter school operations; ensure that the School retains the services of a certified public accountant or auditor for the annual financial audit, who shall submit the report to the board; review and approve the audit report, including audit findings and recommendations for the financial recovery plan; monitor a corrective action plan or financial recovery plan, if required, in order to ensure compliance; and participate in governance training approved by the department which must include government in the sunshine, conflicts of interest, ethics, and financial responsibility.

(c) The board of directors is authorized and empowered, for and on behalf of LEAD, to refuse or accept any bequest, devise, grant or gift for any of its objects and purposes, of any property, real, personal and mixed, of whatever kind, nature and description and wherever situated.

(d) The board of directors is authorized and empowered, for and on behalf of LEAD, to sell, exchange, convey, mortgage, lease, transfer or otherwise dispose of any property, real, personal, and mixed, as the objects and purposes of LEAD may require, subject to such limitations as may be prescribed by law.

(e) The board of directors is authorized and empowered, for and on behalf of LEAD, to employ such custodians and investment advisors as it may deem advisable to assist it in connection with the management and investment of the assets of LEAD.

Section 2.10. Telephone Meetings. Any one or more members of the board of directors or any committee thereof may participate in a meeting of the board or committee by means of a conference telephone or similar communications equipment allowing all persons participating in the meeting to hear each other at the same time. Participation by such means shall constitute presence in person at a meeting.

Section 2.11. Written Consent. Notwithstanding any other provision contained herein, any action required or permitted to be taken by the board of directors or any committee thereof may be taken without a meeting if all members of the board of directors or the committee, as the case may be, consent in writing to the adoption of a resolution authorizing such action.

Section 2.12. Delivery of Notice to Directors. Any notice to the directors of LEAD will be in writing and will be deemed to have been duly given if: (a) personally delivered; (b) mailed via the United States Postal Service, first class postage prepaid, at the director's address as it appears on the records of LEAD; or (c) electronically transmitted by telecopier, facsimile device or email to the director's then serviceable address as it appears on the records of LEAD. All notices will be deemed to have been given as follows: personal delivery - date of receipt; mail - two days after the date of deposit with the United States Postal Service; and facsimile device and email - date of transmission.

ARTICLE III.

OFFICERS

Section 3.01. Appointment. At the annual meeting of the board of directors or at any special meeting called for that purpose, the board shall appoint a president, a vice president, a secretary, and a treasurer. All of the officers so elected shall hold office until the next annual meeting of the directors and until their respective successors shall be duly appointed and qualified. If any vacancy occurs among the above offices, the vacancy may be filled for the remainder of the term by the board of directors, at a regular or special meeting, and any officer so elected shall hold office until his/her successor is duly elected and qualified.

Section 3.02. Suspension and Removal. Any officer of LEAD may be removed or suspended by a majority vote of the board of directors at any time, with or without cause. In such case, the Board of Directors shall appoint his/her replacement.

Section 3.03. Powers and Duties of Chairman. It shall be the duty of the Chairman to preside at all meetings of the board of directors and executive committee. The Chairman shall cause to be called regular and special meetings of the directors in accordance with these Bylaws. The Chairman, subject to the approval of the board of directors, shall appoint and remove, employ and discharge, and determine the compensation of all agents and employees of LEAD. The Chairman or his/her designee shall review the operations of LEAD for each year to the directors at their regular annual meeting, or at a special meeting called for that purpose, and from time to time he/she shall report to the directors all matters within his/her knowledge which the interests of LEAD may require to be brought to their attention. In general, he/she shall perform all the duties incident to his/her office including such duties as may be assigned to that office from time to time by the board of directors.

Section 3.04. Powers and Duties of Vice Chairman. The Vice Chairman of LEAD shall generally assist the Chairman and shall perform those duties that may be assigned to him/her by the board of directors. In the event of the death, resignation, absence or inability to act of the chairman, the vice chairman shall assume and discharge pro tempore the powers and duties of the Chairman of LEAD. The board of directors may appoint one or more additional vice chairmen as it may desire from time to time, and these vice chairmen shall have the duties assigned to them by the board of directors.

Section 3.05. Powers and Duties of Secretary. The Secretary shall keep the minutes of all meetings of the board of directors. He/she shall have charge of the corporate books and records. In general, he/she shall perform all the duties incident to his/her office including such duties as may be assigned to that office by the board of directors from time to time.

Section 3.06. Powers and Duties of Treasurer. The Treasurer shall oversee all the business, assets, liabilities and finances of LEAD. The Treasurer shall perform all the duties incident to his/her office including such duties as may be assigned to that office by the board of directors from time to time.

Section 3.07. Assistant Officers. The board of directors may elect an assistant to any officer, and the assistant shall exercise the duties of that office in the absence of the officer whom he/she was elected to assist.

Section 3.08. Returns and Statements. It shall be the duty of each officer of LEAD to make and file any and all returns, reports, lists, or statements required by law to be made and

filed by him/her, and to make full report to the board of directors respecting the affairs of LEAD in his/her charge whenever he/she may be requested to do so.

Section 3.09. Compensation. No compensation shall be paid to any director or officer for his/her services rendered to or on behalf of LEAD unless specifically authorized by the board of directors. An officer or director may be entitled to reimbursement for any reasonable expense incurred by him/her in the furtherance of the purposes of LEAD, subject to approval by the board of directors.

ARTICLE IV.

COMMITTEES

Section 4.01. Designation of Committees. The board of directors may, by resolution passed by a majority of a quorum of directors, designate one or more committees. Each committee must consist of one (1) or more directors of LEAD except for the executive committee, which shall consist of no fewer than three (3) directors. The board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. The board may designate any individual as a member of an Advisory Committee who may then also serve on any other committee. The designation of any committee and the delegation to it of authority shall not operate to relieve the board of directors or any member of it of any responsibility imposed by law. The board of directors may have the power at any time to increase or decrease the number of members of any committee, to fill vacancies on it, to remove any member of it, and to change its functions or terminate its existence.

Section 4.02. Powers of Committee. Any committee named in the Bylaws or established by resolution of the board of directors, to the extent provided in the resolution, shall have and exercise all the authority granted by the board of directors, except that no such committee shall have the authority of the board of directors in reference to: amending, altering, or repealing the Bylaws; electing, appointing, or removing any member of any such committee or any director or officer of LEAD; amending the Certificate of Formation, restating the Certificate of Formation, adopting a Plan of Merger, or adopting a Plan of Consolidation with another corporation; authorizing the sale, lease, exchange or mortgage of all or substantially all of the property and assets of LEAD; authorizing the voluntary dissolution of LEAD or revoking

proceedings therefor; adopting a plan for the distribution of the assets of LEAD; or amending, altering, or repealing any action or resolution of the board of directors which by its terms provides that it shall not be amended, altered, or repealed by such committee. Other committees not having and exercising the authority of the board of directors in the management of LEAD may be designated by a resolution adopted by a majority of the directors present at a meeting at which a quorum is present.

Section 4.03. Meetings of Committees. Regular meetings of committees may be established by the board of directors or by the chairperson of the committee. A special meeting of any committee shall be called at the request of at least two (2) members of the committee and shall be held upon notice given in writing at least twenty-four (24) hours prior to the meeting. Three (3) days' notice shall also be required for any regular meeting of the committee. Notice may be waived in writing either before or after the time of the meeting. Attendance of any member of a committee shall constitute waiver of notice of the meeting. All committees except the executive committee may conduct business by email.

Section 4.09. Record of Proceedings. Any committee established by the resolution of the board of directors shall keep minutes of its acts and proceedings. These minutes shall be submitted to the next succeeding meeting of the board of directors for approval, but failure to submit or to receive approval of these minutes shall not invalidate any action taken upon authorization contained in them.

Section 4.10. Quorum of Committee. Except as provided in Section 4.02, a majority of any committee established by the board of directors shall be necessary to constitute a quorum for the transaction of any business. The act of a majority of the members of any committee present at a meeting at which a quorum is present shall be the act of the committee.

ARTICLE V.

MISCELLANEOUS

Section 5.01. Contracts. The board of directors may authorize any officer or officers, agent or agents, employee or employees to enter into any contract or other instrument on behalf of LEAD, and the authority granted may be general or confined to specific instances. Except as provided in this section or as authorized by the board of directors, no officer, agent, or employee, other than the president, vice president, secretary or treasurer, shall have any power or authority

to bind LEAD by any contract or engagement, or to pledge its credit or to render it liable for any purpose or for any amount.

Section 5.02. Deposits, Checks and Drafts. All checks and drafts or funds of LEAD shall be deposited from time to time to the credit of LEAD in such banks, or trust companies, or to other depositories as the board of directors may from time to time designate. All disbursements shall be made out of the regular checking accounts of LEAD and the purpose and amount for which the disbursement is drawn shall be specified. All checks, notes, drafts, bills of exchange, acceptances or other orders for the payment of money or other evidences of the indebtedness of LEAD, shall be signed as shall from time to time be designated by resolution of the board of directors.

Section 5.03. Descriptive Headings. The descriptive headings to these Bylaws are for convenience of reference only and shall not be deemed to alter or affect the meaning of any of the Bylaws.

Section 5.04. Severability. The invalidity or unenforceability of any particular provision of these Bylaws shall not affect any other provisions and these Bylaws shall be construed in all respects as if any invalid or unenforceable provisions were omitted.

Section 5.05. Conflict of Interest. Directors, officers and employees shall adhere to the Conflict of Interest Policy attached hereto, as amended from time to time by the Board of Directors.

Section 5.06. Indemnification and Insurance. Any person made a party to any civil or criminal action, suit or proceedings by reason of the fact that he/she is or was an employee, director, officer or other agent of LEAD shall be indemnified by LEAD against the reasonable expenses, including, without limitation, attorneys' fees and amounts paid in satisfaction of judgment or in settlement other than amounts paid to LEAD by him, actually and necessarily incurred by or imposed upon him in connection with, or resulting from the defense of such civil or criminal action, suit or proceeding, or in connection with or resulting from any appeal therein, except in relation to matters as to which it shall be adjudged in such civil or criminal action, suit or proceeding that such person is liable for negligence or misconduct in the performance of his duties. In the case of a criminal action, suit or proceeding a conviction (whether based on a plea of guilty or nolo contendere or its equivalent, or after trial) shall not of itself be deemed an adjudication that such person is liable for negligence or misconduct in the performance of his

duties to LEAD. Any amount payable pursuant to this Article may be determined and paid, at the option of the person to be indemnified, pursuant to procedure set forth from time to time by any of the following procedures: (a) order of the court having jurisdiction of any such civil or criminal action, suit or proceeding; (b) resolution adopted by a majority or quorum of the Board of Directors of LEAD without counting the interested directors in such majority or quorum; or (c) order of any court having jurisdiction over LEAD. Such right of indemnification shall not be exclusive of any other right which such [employees,] directors[,] or officers of LEAD, and the other persons above mentioned, may have or hereafter acquire and, without limiting the generality of such statement, they shall be entitled to their respective rights of indemnification under any bylaw, agreement, provisions of law or otherwise, as well as their rights under this Article. LEAD shall maintain general liability, employment practices liability, officers and directors liability, fiduciary and such other insurance, and in such amounts, as determined by the Board of Directors.

Section 5.07 Dissolution of Organization. Upon the dissolution of this organization, assets shall be distributed for one or more exempt purposes within the meaning of Section 501 (c)(3) of the International Revenue Code, or corresponding section of any future federal tax code, or shall be distributed to the federal government, or to a state or local government, for a public purpose.

ARTICLE VI.

AMENDMENT OF BYLAWS & ARTICLES OF INCORPORATION

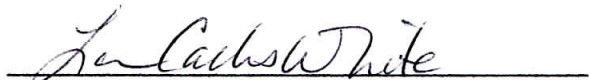
The board of directors shall have power to make, amend, and repeal these Bylaws and its Articles of Incorporation after the notice and vote of a majority of the then-serving directors, at any regular or special meeting of the board. The board of directors may not, however, alter, amend, or repeal any of these Bylaws so as to avoid limitations set forth in the Articles of Incorporation or the Alabama Nonprofit Corporation Law.

CERTIFICATE OF CORPORATE SECRETARY

I, Lori White, Secretary of LEAD Education Foundation certify that the foregoing, consisting of Articles I to VI, inclusive, is a true and complete copy of

the Bylaws of LEAD as adopted by unanimous consent of the directors at the board of directors meeting held on Nov 30, 2017

I have subscribed my name and affixed the seal of LEAD Education Foundation this Dec 11, 2017


Secretary
LEAD Education Foundation

ATTACHMENT-17

Staffing Chart

Attachment-17

Projected School Staffing Need

Staffing	YEAR-1 2018-19	YEAR-2 2019-20	YEAR-3 2020-21	YEAR-4 2021-22	YEAR-5 2022-23
Executive Director	0	0	1	1	1
Principal	1	1	1	2	2
V. Principal	1	2	2	3	4
Business Manager	0	0.5	1	1	1
Teacher	19	21	38	50	64
Teacher Aide	6	8	8	8	8
Secretary/Admin Assist.	1	2	2	3	4
Sp. Ed Teacher	1	2	2	2	3
ESL Teacher	0	1	1	1	1
Counselor (SEL)	1	1	1	2	2
Medical Assistant	1	1	2	2	2
Librarian	1	1	2	2	2
IT Tech	0.5	1	1	2	2
Total	32.5	41.5	62	79	96

ATTACHMENT-18

Personnel Policies and/or Employee Manual

The LEAD Education Foundation has not adopted the Employee Manual and/or Policies. They will be created and will be adopted by the board upon approval of the charter.

ATTACHMENT-19

Leadership Evaluation Tool

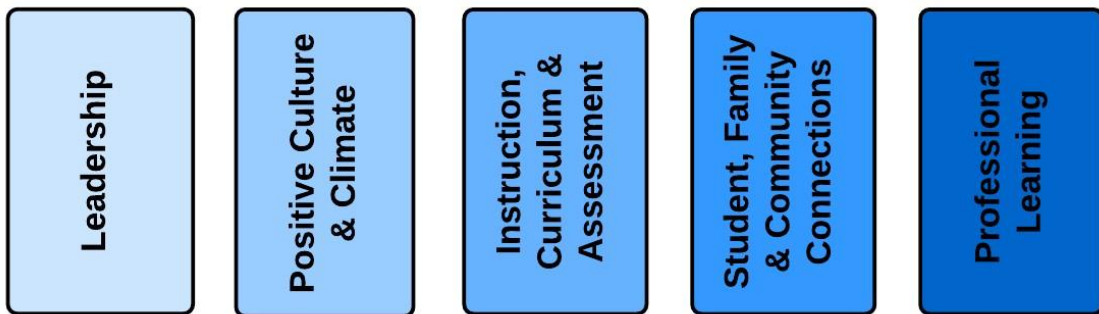
LEAD Academy

Leadership Evaluation Tool

Collaborative Quality Initiative Tool

Collaborative Quality Initiative Tool (CQIT) is a holistic school needs assessment designed to measure school strengths and areas of improvement across research based on quality schools. The process collects and analyzes multiple pieces of evidence in order to answer five key questions:

- How good are the school's organizational structures and systems set up to maximize school improvement efforts and change? (Leadership)
- How well does the school promote and foster a positive culture and climate focused on improved outcomes for all students? (Positive Culture & Climate)
- How well does the school meet, and adapt to, the needs of diverse learners by providing individualized, differentiated curriculum, instruction, and assessments that are tailored to meet student needs and allow them to succeed? (Instruction, Curriculum, and Assessment)
- How well are resources used within and outside the school to meet the diverse needs of all students? (Student, Family, and Community Connections)
- How well are the school's systems and structures set up to provide high quality job embedded learning experiences for all staff? (Professional Learning)



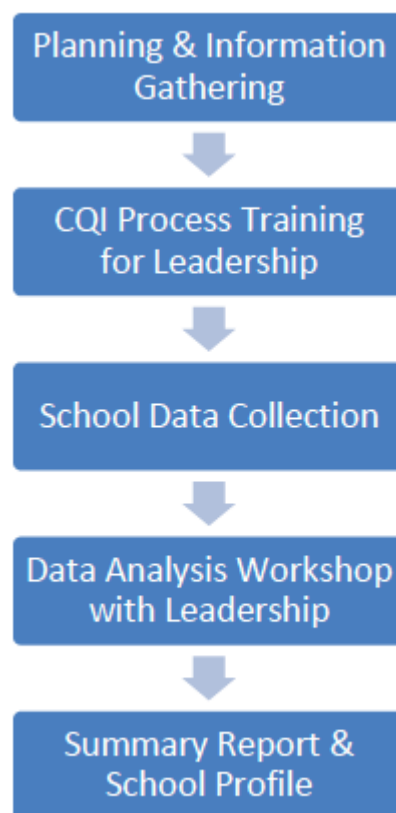
CQIT will help aid the leadership team:

- Build capacity of school's leaders to implement annual quality analysis reviews and embed a data-driven cycle of continuous improvement
- Identify underlying beliefs, attitudes, values and expectations that drive decisions and behaviors Highlight school strengths and identify school staff that can be better leveraged for improvement efforts
- Identify short & long-term strategies in an action plan that will serve as a framework for identifying priorities and monitoring progress

Process Overview

The CQIT process looks to collect evidence from multiple sources in order to provide an accurate view of the school. Process includes:

- Classroom Observations
- Student, Parent, and Staff Focus Groups
- Analysis of Support for Students At-Risk of Underachievement
- Review of Lesson Plans and Student Work Samples
- Analysis of Student Achievement Data
- Analysis of School Planning Documentation
- (Improvement Plans, Professional Development Plans, Assessment Schedules, etc.)



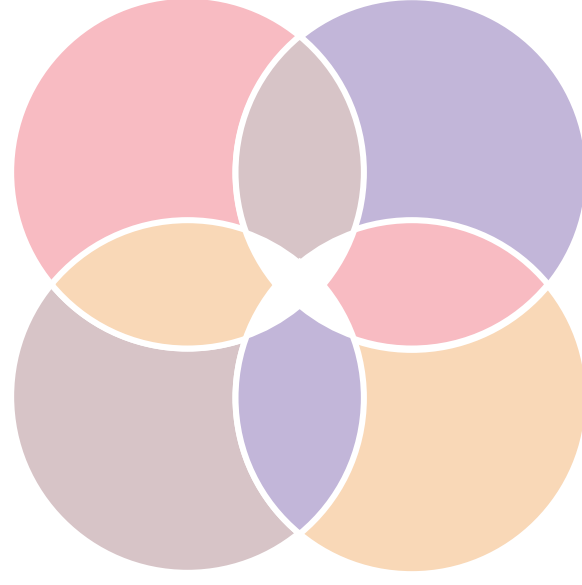
Written Report

After the data gathering, the school will receive a written report (approximately 30 days) that formalizes the findings and recommendations for action planning.

ATTACHMENT-20

Teacher Evaluation Instrument

**RUBRICS FROM
THE FRAMEWORK FOR TEACHING
EVALUATION INSTRUMENT
2013 EDITION**



CHARLOTTE DANIELSON

Domain 1: Planning and Preparation

Component	Unsatisfactory	Basi	Proficient	Distinguished
1a: Demonstrating Knowledge of Content and Pedagogy	In planning and practice, the teacher makes content errors or does not correct errors made by students. The teacher displays little understanding of prerequisite knowledge important to student learning of the content. The teacher displays little or no understanding of the range of pedagogical approaches suitable to student learning of the content.	The teacher is familiar with the important concepts in the discipline but displays a lack of awareness of how these concepts relate to one another. The teacher indicates some awareness of prerequisite learning, although such knowledge may be inaccurate or incomplete. The teacher's plans and practice reflect a limited range of pedagogical approaches to the discipline or to the students.	The teacher displays solid knowledge of the important concepts in the discipline and how these relate to one another. The teacher demonstrates accurate understanding of prerequisite relationships among topics. The teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the subject.	The teacher displays extensive knowledge of the important concepts in the discipline and how these relate both to one another and to other disciplines. The teacher demonstrates understanding of prerequisite relationships among topics and concepts and understands the link to necessary cognitive structures that ensure student understanding. The teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the discipline and the ability to anticipate student misconceptions.
1b: Demonstrating Knowledge of Students	The teacher displays minimal understanding of how students learn—and little knowledge of their varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages—and does not indicate that such knowledge is valuable.	The teacher displays generally accurate knowledge of how students learn and of their varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages, yet may apply this knowledge not to individual students but to the class as a whole.	The teacher understands the active nature of student learning and attains information about levels of development for groups of students. The teacher also purposefully acquires knowledge from several sources about groups of students' varied approaches to learning, knowledge and skills, special needs, and cultural heritages.	The teacher understands the active nature of student learning and acquires information about levels of development for individual students. The teacher also systematically acquires knowledge from several sources about individual students' varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages.
1c: Setting Instructional Outcomes	The outcomes represent low expectations for students and lack of rigor, and not all of these outcomes reflect important learning in the discipline. They are stated as student activities, rather than as outcomes for learning. Outcomes reflect only one type of learning and only one discipline or strand and are suitable for only some students.	Outcomes represent moderately high expectations and rigor. Some reflect important learning in the discipline and consist of a combination of outcomes and activities. Outcomes reflect several types of learning, but teacher has made no effort at coordination or integration. Outcomes, based on global assessments of student learning, are suitable for most of the students in the class.	Most outcomes represent rigorous and important learning in the discipline and are clear, are written in the form of student learning, and suggest viable methods of assessment. Outcomes reflect several different types of learning and opportunities for coordination, and they are differentiated, in whatever way is needed, for different groups of students.	All outcomes represent high-level learning in the discipline. They are clear, are written in the form of student learning, and permit viable methods of assessment. Outcomes reflect several different types of learning and, where appropriate, represent both coordination and integration. Outcomes are differentiated, in whatever way is needed, for individual students.
1d: Demonstrating Knowledge of Resources	The teacher is unaware of resources to assist student learning beyond materials provided by the school or district, nor is the teacher aware of resources for expanding one's own professional skill.	The teacher displays some awareness of resources beyond those provided by the school or district for classroom use and for extending one's professional skill but does not seek to expand this knowledge.	The teacher displays awareness of resources beyond those provided by the school or district, including those on the Internet, for classroom use and for extending one's professional skill, and seeks out such resources.	The teacher's knowledge of resources for classroom use and for extending one's professional skill is extensive, including those available through the school or district, in the community, through professional organizations and universities, and on the Internet.
1e: Designing Coherent Instruction	Learning activities are poorly aligned with the instructional outcomes, do not follow an organized progression, are not designed to engage students in active intellectual activity, and have unrealistic time allocations. Instructional groups are not suitable to the activities and offer no variety.	Some of the learning activities and materials are aligned with the instructional outcomes and represent moderate cognitive challenge, but with no differentiation for different students. Instructional groups partially support the activities, with some variety. The lesson or unit has a recognizable structure; but the progression of activities is uneven, with only some reasonable time allocations.	Most of the learning activities are aligned with the instructional outcomes and follow an organized progression suitable to groups of students. The learning activities have reasonable time allocations; they represent significant cognitive challenge, with some differentiation for different groups of students and varied use of instructional groups.	The sequence of learning activities follows a coherent sequence, is aligned to instructional goals, and is designed to engage students in high-level cognitive activity. These are appropriately differentiated for individual learners. Instructional groups are varied appropriately, with some opportunity for student choice.
1f: Designing Student Assessments	Assessment procedures are not congruent with instructional outcomes and lack criteria by which student performance will be assessed. The teacher has no plan to incorporate formative assessment in the lesson or unit.	Assessment procedures are partially congruent with instructional outcomes. Assessment criteria and standards have been developed, but they are not clear. The teacher's approach to using formative assessment is rudimentary, including only some of the instructional outcomes.	All the instructional outcomes may be assessed by the proposed assessment plan; assessment methodologies may have been adapted for groups of students. Assessment criteria and standards are clear. The teacher has a well-developed strategy for using formative assessment and has designed particular approaches to be used.	All the instructional outcomes may be assessed by the proposed assessment plan, with clear criteria for assessing student work. The plan contains evidence of student contribution to its development. Assessment methodologies have been adapted for individual students as the need has arisen. The approach to using formative assessment is well designed and includes student as well as teacher use of the assessment information.

Domain 2: The Classroom Environment

Component	Unsatisfactory	Basic	Proficient	Distinguished
2a: Creating an Environment of Respect and Rapport	Patterns of classroom interactions, both between teacher and students and among students, are mostly negative, inappropriate, or insensitive to students' ages, cultural backgrounds, and developmental levels. Student interactions are characterized by sarcasm, put-downs, or conflict. The teacher does not deal with disrespectful behavior.	Patterns of classroom interactions, both between teacher and students and among students, are generally appropriate but may reflect occasional inconsistencies, favoritism, and disregard for students' ages, cultures, and developmental levels. Students rarely demonstrate disrespect for one another. The teacher attempts to respond to disrespectful behavior, with uneven results. The net result of the interactions is neutral, conveying neither warmth nor conflict.	Teacher-student interactions are friendly and demonstrate general caring and respect. Such interactions are appropriate to the ages, cultures, and developmental levels of the students. Interactions among students are generally polite and respectful, and students exhibit respect for the teacher. The teacher responds successfully to disrespectful behavior among students. The net result of the interactions is polite, respectful, and business-like, though students may be somewhat cautious about taking intellectual risks.	Classroom interactions between teacher and students and among students are highly respectful, reflecting genuine warmth, caring, and sensitivity to students as individuals. Students exhibit respect for the teacher and contribute to high levels of civility among all members of the class. The net result is an environment where all students feel valued and are comfortable taking intellectual risks.
2b: Establishing a Culture for Learning	The classroom culture is characterized by a lack of teacher or student commitment to learning, and/or little or no investment of student energy in the task at hand. Hard work and the precise use of language are not expected or valued. Medium to low expectations for student achievement are the norm, with high expectations for learning reserved for only one or two students.	The classroom culture is characterized by little commitment to learning by the teacher or students. The teacher appears to be only "going through the motions," and students indicate that they are interested in the completion of a task rather than the quality of the work. The teacher conveys that student success is the result of natural ability rather than hard work, and refers only in passing to the precise use of language. High expectations for learning are reserved for those students thought to have a natural aptitude for the subject.	The classroom culture is a place where learning is valued by all; high expectations for both learning and hard work are the norm for most students. Students understand their role as learners and consistently expend effort to learn. Classroom interactions support learning, hard work, and the precise use of language.	The classroom culture is a cognitively busy place, characterized by a shared belief in the importance of learning. The teacher conveys high expectations for learning for all students and insists on hard work; students assume responsibility for high quality by initiating improvements, making revisions, adding detail, and/or assisting peers in their precise use of language.
2c: Managing Classroom Procedures	Much instructional time is lost due to inefficient classroom routines and procedures. There is little or no evidence of the teacher's managing instructional groups and transitions and/or handling of materials and supplies effectively. There is little evidence that students know or follow established routines, or that volunteers or paraprofessionals have clearly defined tasks..	Some instructional time is lost due to partially effective classroom routines and procedures. The teacher's management of instructional groups and transitions, or handling of materials and supplies, or both, are inconsistent, leading to some disruption of learning. With regular guidance and prompting, students follow established routines and volunteers and paraprofessionals perform their duties.	There is little loss of instructional time due to effective classroom routines and procedures. The teacher's management of instructional groups and transitions, or handling of materials and supplies, or both, are consistently successful. With minimal guidance and prompting, students follow established classroom routines and volunteers and paraprofessionals contribute to the class.	Instructional time is maximized due to efficient and seamless classroom routines and procedures. Students take initiative in the management of instructional groups and transitions, and/or the handling of materials and supplies. Routines are well understood and may be initiated by students. Volunteers and paraprofessionals make an independent contribution to the class.
2d: Managing Student Behavior	There appear to be no established standards of conduct, or students challenge them. There is little or no teacher monitoring of student behavior, and response to students' misbehavior is repressive or disrespectful of student dignity.	Standards of conduct appear to have been established, but their implementation is inconsistent. The teacher tries, with uneven results, to monitor student behavior and respond to student misbehavior.	Student behavior is generally appropriate. The teacher monitors student behavior against established standards of conduct. Teacher response to student misbehavior is consistent, proportionate, and respectful to students and is effective.	Student behavior is entirely appropriate. Students take an active role in monitoring their own behavior and/or that of other students against standards of conduct. Teacher monitoring of student behavior is subtle and preventive. The teacher's response to student misbehavior is sensitive to individual student needs and respects students' dignity.
2e: Organizing Physical Space	The classroom environment is unsafe, or learning is not accessible to many. There is poor alignment between the arrangement of furniture and resources, including computer technology, and the lesson activities.	The classroom is safe, and essential learning is accessible to most students. The teacher makes modest use of physical resources, including computer technology. The teacher attempts to adjust the classroom furniture for a lesson or, if necessary, to adjust the lesson to the furniture, but with limited effectiveness.	The classroom is safe, and students have equal access to learning activities; the teacher ensures that the furniture arrangement is appropriate to the learning activities and uses physical resources, including computer technology, effectively.	The classroom environment is safe, and learning is accessible to all students, including those with special needs. The teacher makes effective use of physical resources, including computer technology. The teacher ensures that the physical arrangement is appropriate to the learning activities. Students contribute to the use or adaptation of the physical environment to advance learning.

Domain 3: Instruction

Component	Unsatisfactory	Basic	Proficient	Distinguished
3a: Communicating with Students	The instructional purpose of the lesson is unclear to students, and the directions and procedures are confusing. The teacher's explanation of the content contains major errors and does not include any explanation of strategies students might use. The teacher's spoken or written language contains errors of grammar or syntax. The teacher's academic vocabulary is inappropriate, vague, or used incorrectly, leaving students confused.	The teacher's attempt to explain the instructional purpose has only limited success, and/or directions and procedures must be clarified after initial student confusion. The teacher's explanation of the content may contain minor errors; some portions are clear, others difficult to follow. The teacher's explanation does not invite students to engage intellectually or to understand strategies they might use when working independently. The teacher's spoken language is correct but uses vocabulary that is either limited or not fully appropriate to the students' ages or backgrounds. The teacher rarely takes opportunities to explain academic vocabulary.	The instructional purpose of the lesson is clearly communicated to students, including where it is situated within broader learning; directions and procedures are explained clearly and may be modeled. The teacher's explanation of content is scaffolded, clear, and accurate and connects with students' knowledge and experience. During the explanation of content, the teacher focuses, as appropriate, on strategies students can use when working independently and invites student intellectual engagement. The teacher's spoken and written language is clear and correct and is suitable to students' ages and interests. The teacher's use of academic vocabulary is precise and serves to extend student understanding.	The teacher links the instructional purpose of the lesson to the larger curriculum; the directions and procedures are clear and anticipate possible student misunderstanding. The teacher's explanation of content is thorough and clear, developing conceptual understanding through clear scaffolding and connecting with students' interests. Students contribute to extending the content by explaining concepts to their classmates and suggesting strategies that might be used. The teacher's spoken and written language is expressive, and the teacher finds opportunities to extend students' vocabularies, both within the discipline and for more general use. Students contribute to the correct use of academic vocabulary.
3b: Using Questioning and Discussion Techniques	The teacher's questions are of low cognitive challenge, with single correct responses, and are asked in rapid succession. Interaction between the teacher and students is predominantly recitation style, with the teacher mediating all questions and answers; the teacher accepts all contributions without asking students to explain their reasoning. Only a few students participate in the discussion.	The teacher's questions lead students through a single path of inquiry, with answers seemingly determined in advance. Alternatively, the teacher attempts to ask some questions designed to engage students in thinking, but only a few students are involved. The teacher attempts to engage all students in the discussion, to encourage them to respond to one another, and to explain their thinking, with uneven results.	While the teacher may use some low-level questions, he poses questions designed to promote student thinking and understanding. The teacher creates a genuine discussion among students, providing adequate time for students to respond and stepping aside when doing so is appropriate. The teacher challenges students to justify their thinking and successfully engages most students in the discussion, employing a range of strategies to ensure that most students are heard.	The teacher uses a variety or series of questions or prompts to challenge students cognitively, advance high-level thinking and discourse, and promote metacognition. Students formulate many questions, initiate topics, challenge one another's thinking, and make unsolicited contributions. Students themselves ensure that all voices are heard in the discussion.
3c: Engaging Students in Learning	The learning tasks/ activities, materials and, resources are poorly aligned with the instructional outcomes, or require only rote responses, with only one approach possible. The groupings of students are unsuitable to the activities. The lesson has no clearly defined structure, or the pace of the lesson is too slow or rushed.	The learning tasks and activities are partially aligned with the instructional outcomes but require only minimal thinking by students and little opportunity for them to explain their thinking, allowing most students to be passive or merely compliant. The groupings of students are moderately suitable to the activities. The lesson has a recognizable structure; however, the pacing of the lesson may not provide students the time needed to be intellectually engaged or may be so slow that many students have a considerable amount of "down time."	The learning tasks and activities are fully aligned with the instructional outcomes and are designed to challenge student thinking, inviting students to make their thinking visible. This technique results in active intellectual engagement by most students with important and challenging content and with teacher scaffolding to support that engagement. The groupings of students are suitable to the activities. The lesson has a clearly defined structure, and the pacing of the lesson is appropriate, providing most students the time needed to be intellectually engaged.	Virtually all students are intellectually engaged in challenging content through well-designed learning tasks and activities that require complex thinking by students. The teacher provides suitable scaffolding and challenges students to explain their thinking. There is evidence of some student initiation of inquiry and student contributions to the exploration of important content; students may serve as resources for one another. The lesson has a clearly defined structure, and the pacing of the lesson provides students the time needed not only to intellectually engage with and reflect upon their learning but also to consolidate their understanding.
3d: Using Assessment in Instruction	Students do not appear to be aware of the assessment criteria, and there is little or no monitoring of student learning; feedback is absent or of poor quality. Students do not engage in self- or peer assessment.	Students appear to be only partially aware of the assessment criteria, and the teacher monitors student learning for the class as a whole. Questions and assessments are rarely used to diagnose evidence of learning. Feedback to students is general, and few students assess their own work.	Students appear to be aware of the assessment criteria, and the teacher monitors student learning for groups of students. Questions and assessments are regularly used to diagnose evidence of learning. Teacher feedback to groups of students is accurate and specific; some students engage in self-assessment	Assessment is fully integrated into instruction, through extensive use of formative assessment. Students appear to be aware of, and there is some evidence that they have contributed to, the assessment criteria. Questions and assessments are used regularly to diagnose evidence of learning by individual students. A variety of forms of feedback, from both teacher and peers, is accurate and specific and advances learning. Students self-assess and monitor their own progress. The teacher successfully differentiates instruction to address individual students' misunderstandings.
3e: Demonstrating Flexibility and Responsiveness	The teacher ignores students' questions; when students have difficulty learning, the teacher blames them or their home environment for their lack of success. The teacher makes no attempt to adjust the lesson even when students don't understand the content.	The teacher accepts responsibility for the success of all students but has only a limited repertoire of strategies to use. Adjustment of the lesson in response to assessment is minimal or ineffective.	The teacher successfully accommodates students' questions and interests. Drawing on a broad repertoire of strategies, the teacher persists in seeking approaches for students who have difficulty learning. If impromptu measures are needed, the teacher makes a minor adjustment to the lesson and does so smoothly.	The teacher seizes an opportunity to enhance learning, building on a spontaneous event or students' interests, or successfully adjusts and differentiates instruction to address individual student misunderstandings. Using an extensive repertoire of instructional strategies and soliciting additional resources from the school or community, the teacher persists in seeking effective approaches for students who need help.

Domain 4: Professional Responsibilities

Component	Unsatisfactory	Basic	Proficient	Distinguished
4a: Reflecting on Teaching	The teacher does not know whether a lesson was effective or achieved its instructional outcomes, or the teacher profoundly misjudges the success of a lesson. The teacher has no suggestions for how a lesson could be improved.	The teacher has a generally accurate impression of a lesson's effectiveness and the extent to which instructional outcomes were met. The teacher makes general suggestions about how a lesson could be improved.	The teacher makes an accurate assessment of a lesson's effectiveness and the extent to which it achieved its instructional outcomes and can cite general references to support the judgment. The teacher makes a few specific suggestions of what could be tried another time the lesson is taught.	The teacher makes a thoughtful and accurate assessment of a lesson's effectiveness and the extent to which it achieved its instructional outcomes, citing many specific examples from the lesson and weighing the relative strengths of each. Drawing on an extensive repertoire of skills, the teacher offers specific alternative actions, complete with the probable success of different courses of action.
4b: Maintaining Accurate Records	The teacher's system for maintaining information on student completion of assignments and student progress in learning is nonexistent or in disarray. The teacher's records for noninstructional activities are in disarray, the result being errors and confusion.	The teacher's system for maintaining information on student completion of assignments and student progress in learning is rudimentary and only partially effective. The teacher's records for noninstructional activities are adequate but inefficient and, unless given frequent oversight by the teacher, prone to errors.	The teacher's system for maintaining information on student completion of assignments, student progress in learning, and noninstructional records is fully effective. Students contribute information and participate in maintaining the records.	The teacher's system for maintaining information on student completion of assignments, student progress in learning, and noninstructional records is fully effective. Students contribute information and participate in maintaining the records.
4c: Communicating with Families	The teacher provides little information about the instructional program to families; the teacher's communication about students' progress is minimal. The teacher does not respond, or responds insensitively, to parental concerns.	The teacher makes sporadic attempts to communicate with families about the instructional program and about the progress of individual students but does not attempt to engage families in the instructional program. Moreover, the communication that does take place may not be culturally sensitive to those families.	The teacher provides frequent and appropriate information to families about the instructional program and conveys information about individual student progress in a culturally sensitive manner. The teacher makes some attempts to engage families in the instructional program.	The teacher communicates frequently with families in a culturally sensitive manner, with students contributing to the communication. The teacher responds to family concerns with professional and cultural sensitivity. The teacher's efforts to engage families in the instructional program are frequent and successful.
4d: Participating in the Professional Community	The teacher's relationships with colleagues are negative or self-serving. The teacher avoids participation in a professional culture of inquiry, resisting opportunities to become involved. The teacher avoids becoming involved in school events or school and district projects.	The teacher maintains cordial relationships with colleagues to fulfill duties that the school or district requires. The teacher participates in the school's culture of professional inquiry when invited to do so. The teacher participates in school events and school and district projects when specifically asked.	The teacher's relationships with colleagues are characterized by mutual support and cooperation; the teacher actively participates in a culture of professional inquiry. The teacher volunteers to participate in school events and in school and district projects, making a substantial contribution.	The teacher's relationships with colleagues are characterized by mutual support and cooperation, with the teacher taking initiative in assuming leadership among the faculty. The teacher takes a leadership role in promoting a culture of professional inquiry. The teacher volunteers to participate in school events and district projects, making a substantial contribution and assuming a leadership role in at least one aspect of school or district life.
4e: Growing and Developing Professionally	The teacher engages in no professional development activities to enhance knowledge or skill. The teacher resists feedback on teaching performance from either supervisors or more experienced colleagues. The teacher makes no effort to share knowledge with others or to assume professional responsibilities.	The teacher participates to a limited extent in professional activities when they are convenient. The teacher engages in a limited way with colleagues and supervisors in professional conversation about practice, including some feedback on teaching performance. The teacher finds limited ways to assist other teachers and contribute to the profession.	The teacher seeks out opportunities for professional development to enhance content knowledge and pedagogical skill. The teacher actively engages with colleagues and supervisors in professional conversation about practice, including feedback about practice. The teacher participates actively in assisting other educators and looks for ways to contribute to the profession.	The teacher seeks out opportunities for professional development and makes a systematic effort to conduct action research. The teacher solicits feedback on practice from both supervisors and colleagues. The teacher initiates important activities to contribute to the profession.
4f: Showing Professionalism	The teacher displays dishonesty in interactions with colleagues, students, and the public. The teacher is not alert to students' needs and contributes to school practices that result in some students' being ill served by the school. The teacher makes decisions and recommendations that are based on self-serving interests. The teacher does not comply with school and district regulations.	The teacher is honest in interactions with colleagues, students, and the public. The teacher's attempts to serve students are inconsistent, and unknowingly contributes to some students being ill served by the school. The teacher's decisions and recommendations are based on limited though genuinely professional considerations. The teacher must be reminded by supervisors about complying with school and district regulations.	The teacher displays high standards of honesty, integrity, and confidentiality in interactions with colleagues, students, and the public. The teacher is active in serving students, working to ensure that all students receive a fair opportunity to succeed. The teacher maintains an open mind in team or departmental decision making. The teacher complies fully with school and district regulations.	The teacher can be counted on to hold the highest standards of honesty, integrity, and confidentiality and takes a leadership role with colleagues. The teacher is highly proactive in serving students, seeking out resources when needed. The teacher makes a concerted effort to challenge negative attitudes or practices to ensure that all students, particularly those traditionally underserved, are honored in the school. The teacher takes a leadership role in team or departmental decision making and helps ensure that such decisions are based on the highest professional standards. The teacher complies fully with school and district regulations, taking a leadership role with colleagues.

ATTACHMENT-21

Proof of Commitment for Facility by ACD

December 1, 2017

LEAD Academy Inc. C/O Charlotte Meadows, Board Chair of the LEAD Academy, Montgomery, AL

SUBJECT: LETTER OF SUPPORT AND INTENT – LEAD Academy

TRANSMISSION: VIA EMAIL – SIGNATURE BELOW IS AN ELECTRONIC IMAGE

Dear Mrs. Meadows:

American Charter Development (ACD) is pleased to provide this letter of support and intent to the LEAD Academy, supported by Unity School Services. It is because of the capacity of your founding board of trustees and the board's prudent choice to have Unity School Services as your proposed charter schools service and support provider, who's founder has over 15 years of financial, academic and operational capacity to launch and successfully support high performing schools, that ACD is pleased to offer this letter of support and intent to serve.

ACD is a national charter school real estate development and financing organization with a track record of developing and funding charter Schools nationally. ACD can provide 100% financing and turnkey full-service development for your charter school when requested. ACD provides its services with no upfront cost to the school and meets the budgetary and financial obligations required to deliver a fully-functional, customized charter facility to you. Once the facility is complete, it is leased back to the school, with strategic buyout options which enable the school to own its own facility quickly.

For over a decade now, American Charter Development has successfully developed more than 60 charter school facilities nationally ranging from \$5 million to \$25 million in cost. Do to our recent support work in Alabama, we are familiar with the Department of Education facility and budget requirements. As an added benefit to the school, ACD has a diverse capital stack ready to deploy now, for LEAD Academy. As a result of this diverse capital, our lease rates are lower, our lease escalators are less, and our buy-out options can be sooner. This not only provides better prices but, allows the Academy Board to own its facility when it fits into the school's plans, not the lenders or investors.

Our campuses, whether they are design-builds or retrofitted buildings, are attractive, affordable, functional, built to withstand the years of use that lies ahead of them, and are all developed to suit the needs of each individual school. ACD is a strong, well-seasoned organization whose senior leaders have been involved in the charter school moment nationally almost since its inception by starting, running, finding, building and funding schools. We are a reputable organization with the highest of integrity, transparency and values. Please feel free to call on me directly if you have any questions.

Sincerely yours,

Robert Giordano

Robert Giordano
Senior Vice President of Business Development

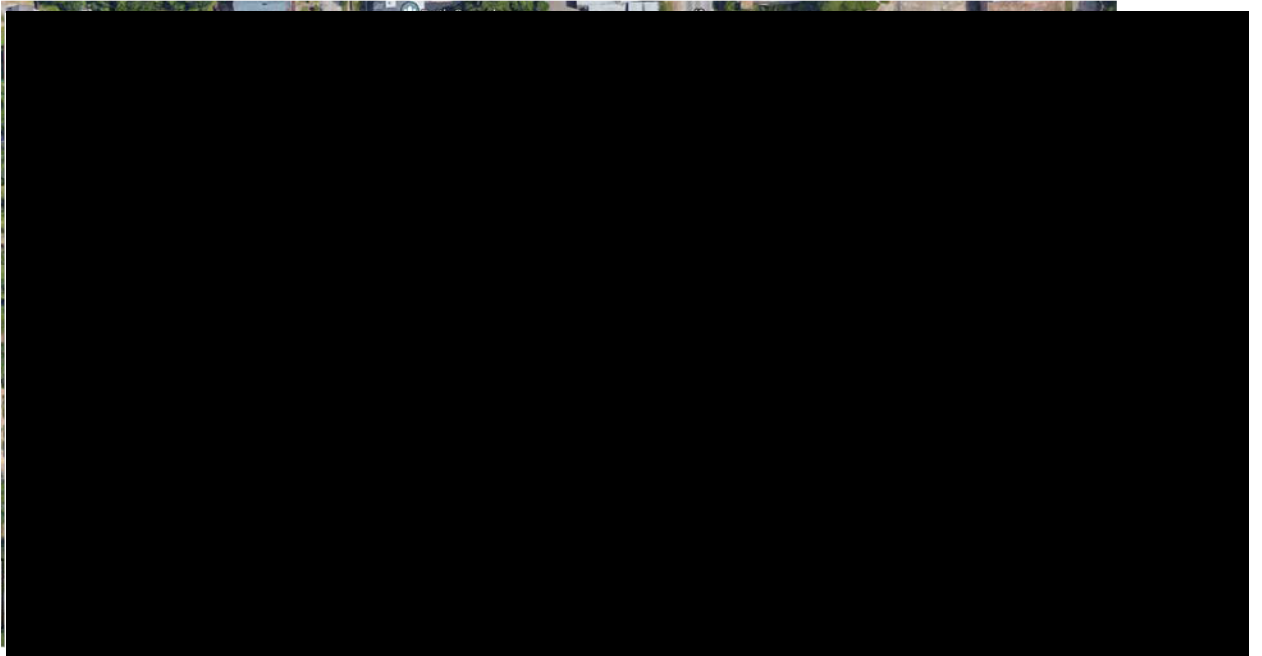
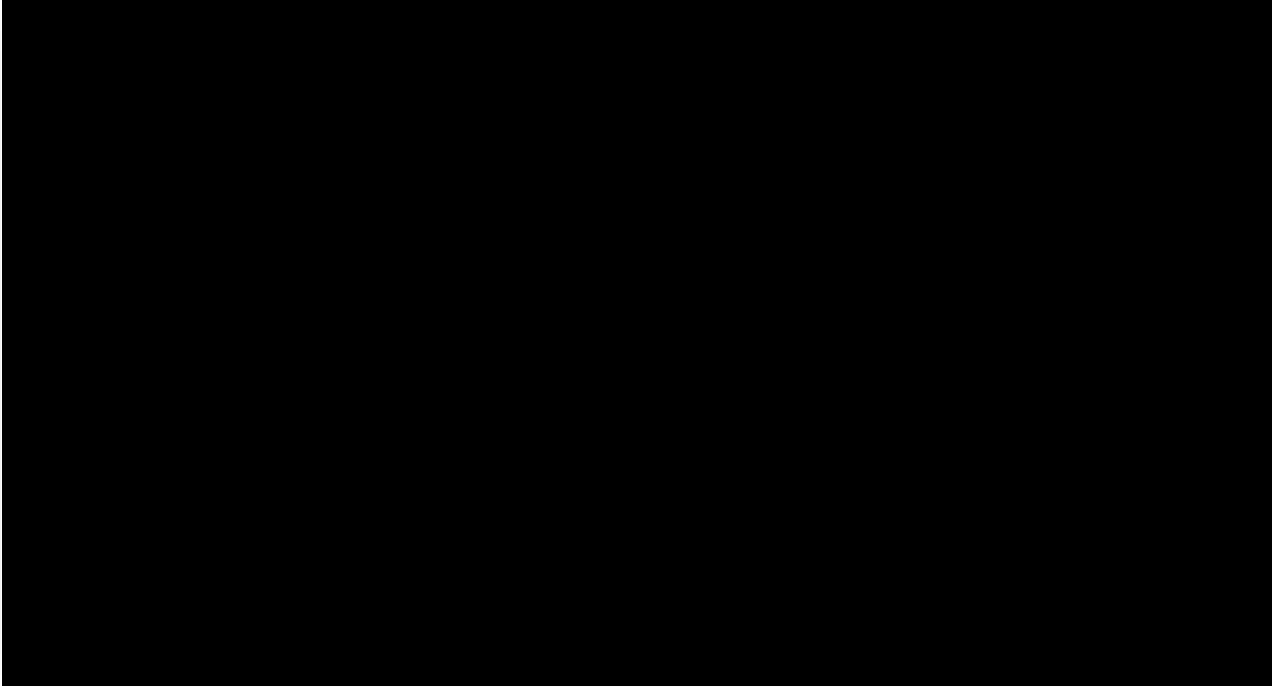


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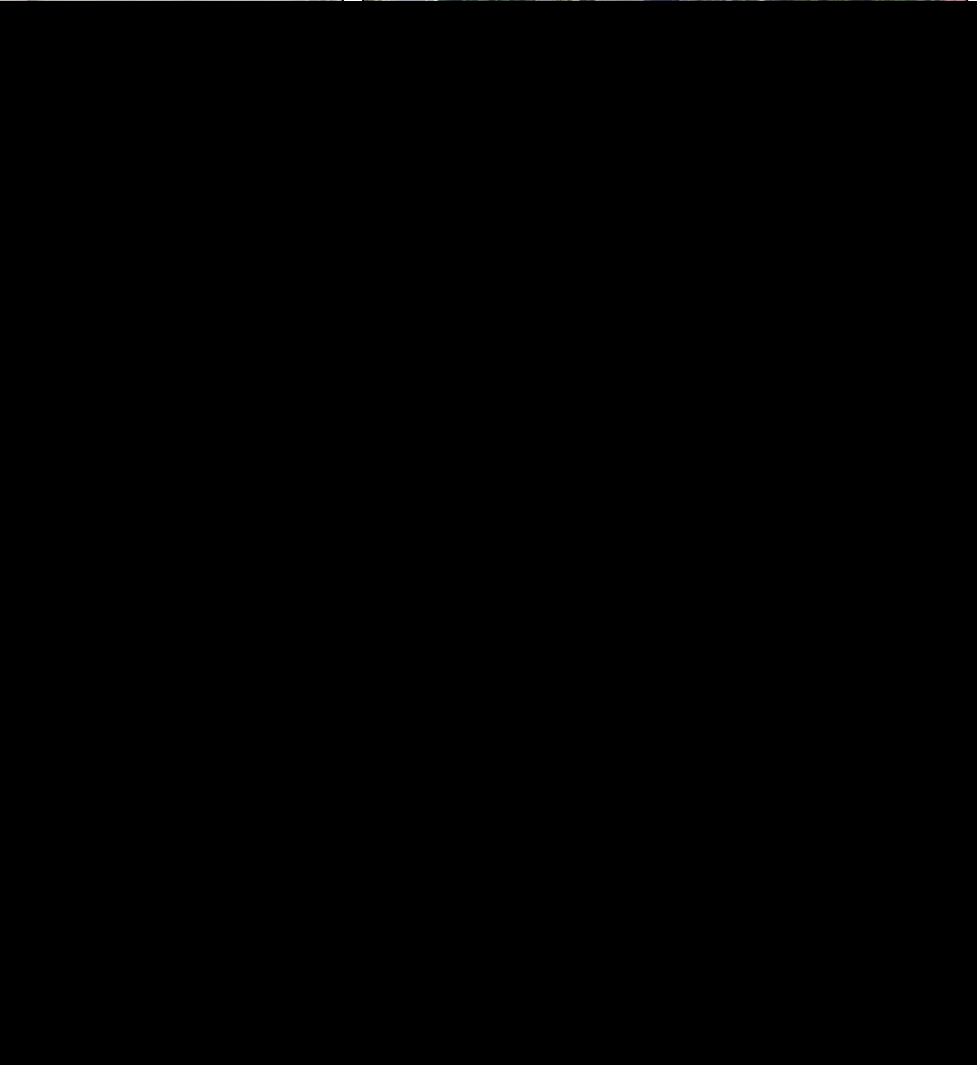
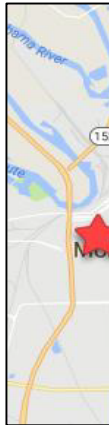
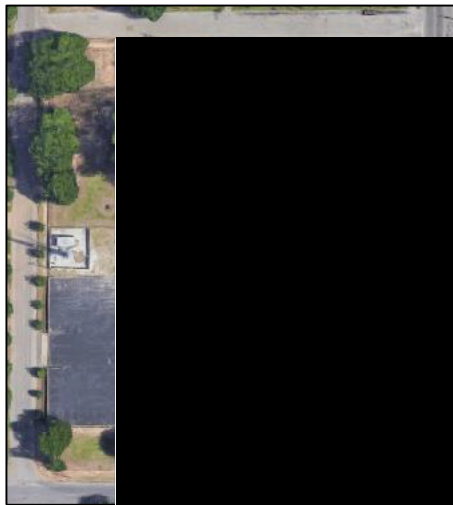
ATTACHMENT-22

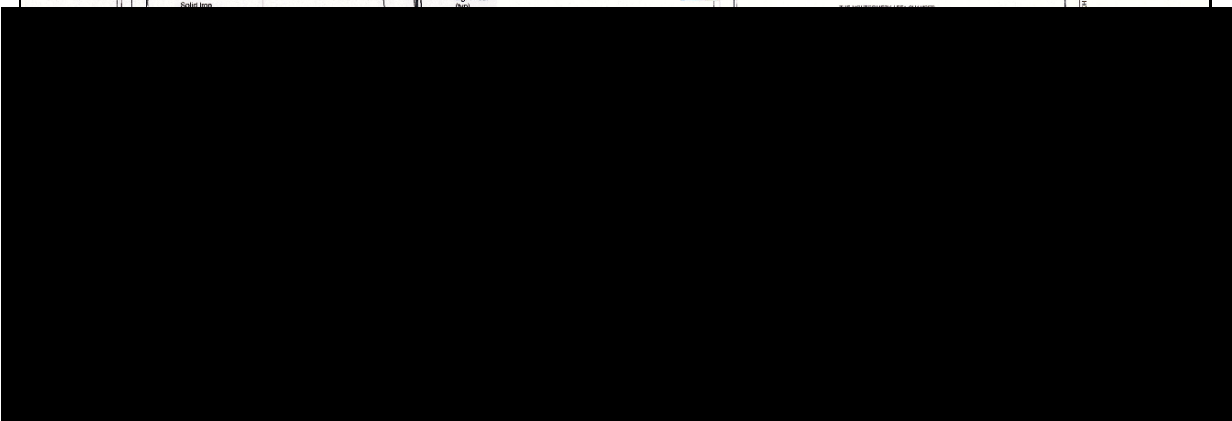
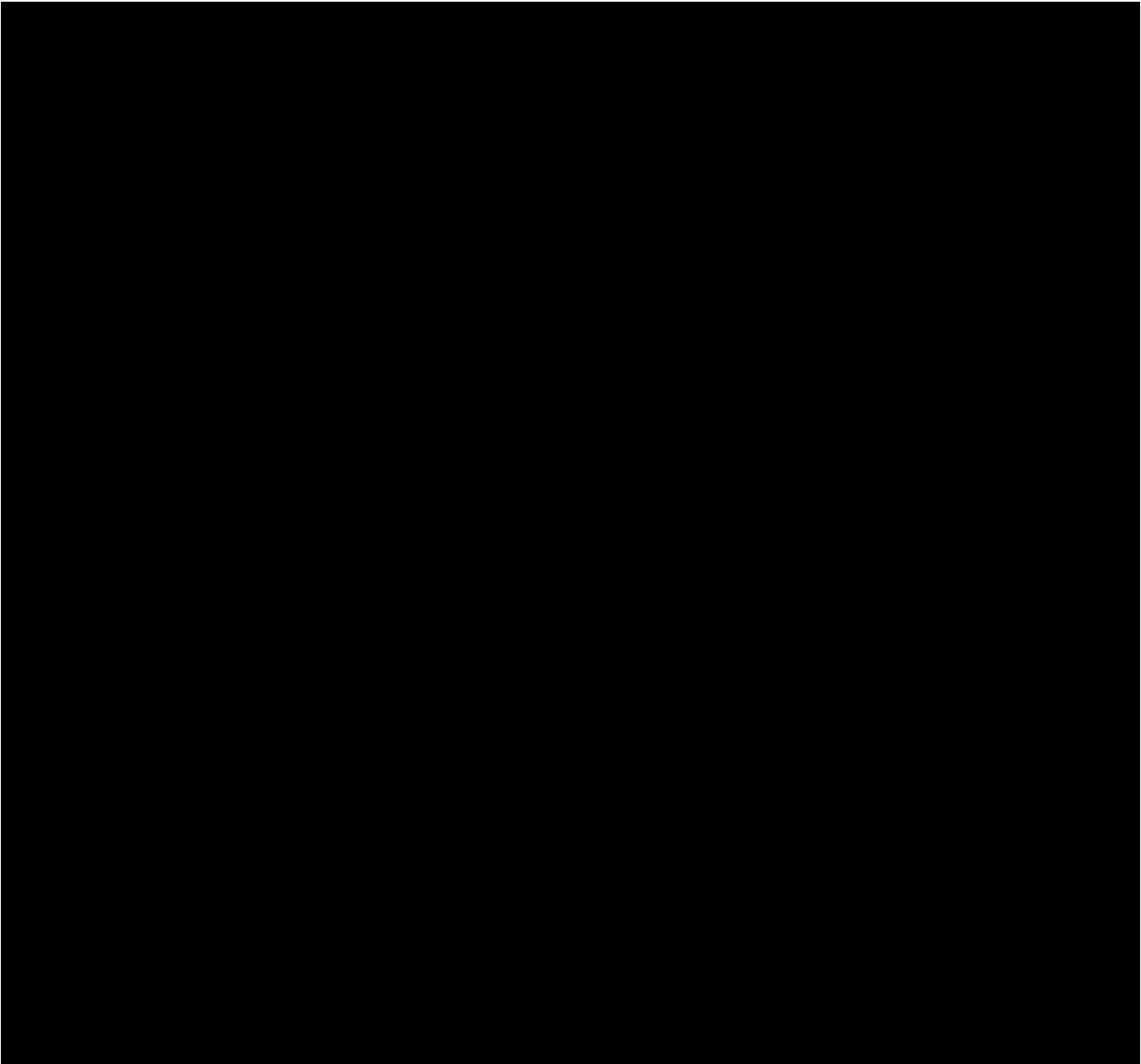
Proposed Facilities

**Proposed Facility for
LEAD Academy
(600 South Court Street)**

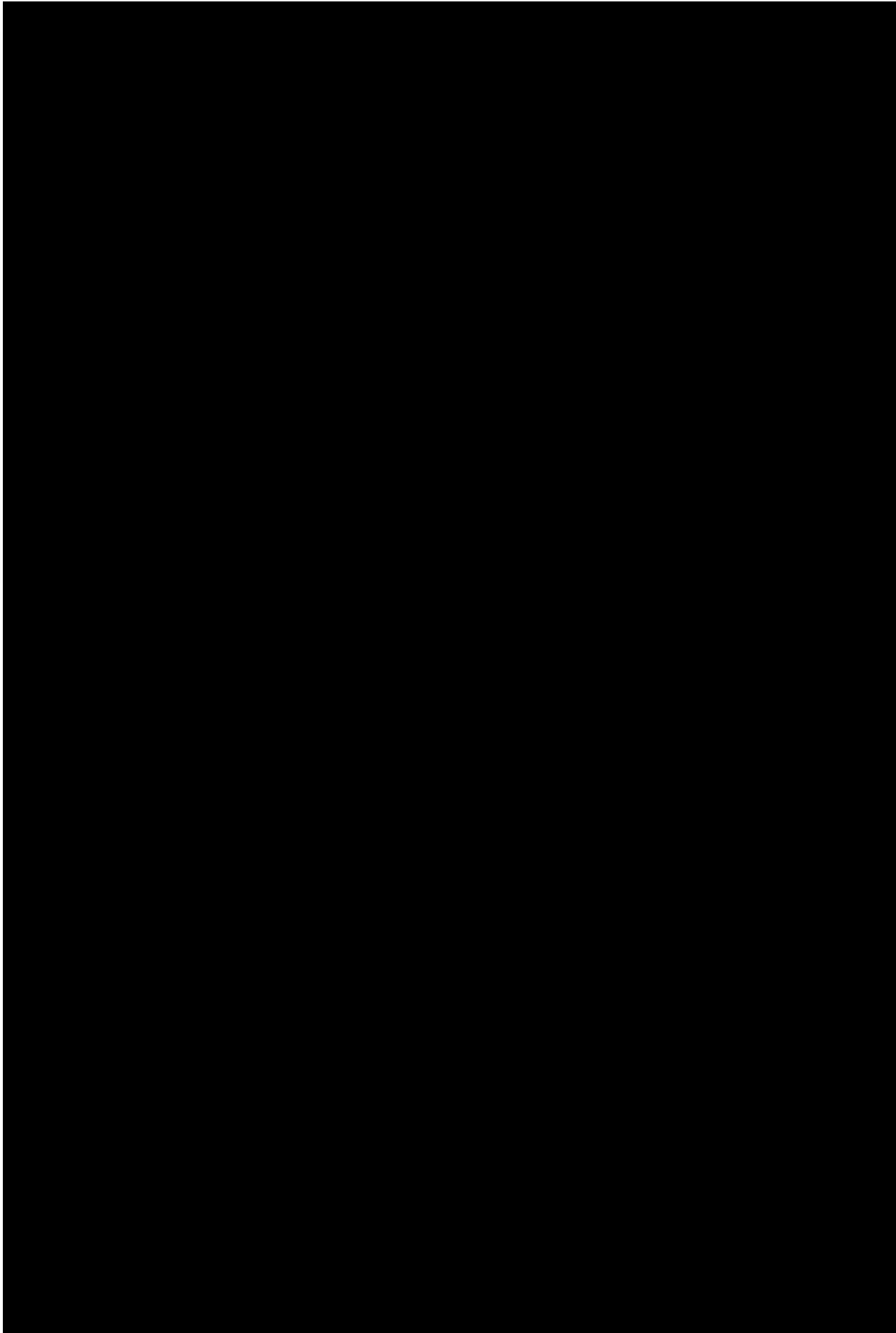


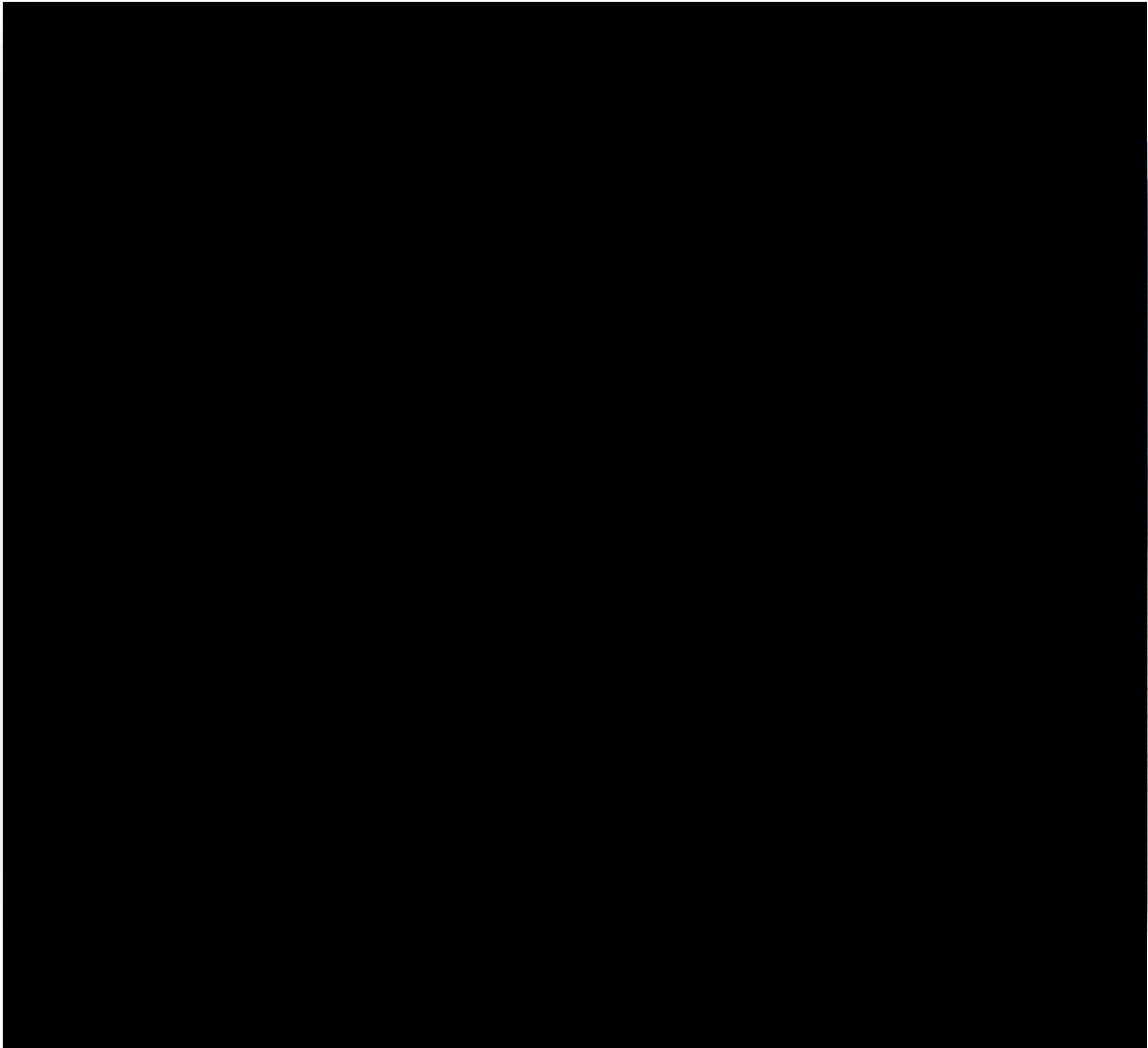
Property Address:	600 South Court Street, Montgomery, AL 36104		
Type of Building:	Office		
On or Off Market	On market		
Purchase Price:	\$1,950,000		
Price per SF:	\$44.42		
Size of Building:	43,904 SF		
Size of Land:	4.7 AC		
APN #	11-06-13-1-012-001.000, 11-06-13-1-012-001.001, 11-06-13-1-012-007.00, 11-06-13-1-012-009.000, 11-06-13-1-012-008.001, 11-06-13-1-012-004.000, 11-06-13-1-012-002.000, 11-06-13-1-012-003.000		
Zoning	T4R		
Zoning Approvals:	Permitted by Right		
Flood Plain:	None		
Demos	1 Mile	2 Mile	3 Mile
Population (2017)	7,869	27,949	55,916
Population Growth (2017-2022)	7,798	27,907	55,873
Average HHI	\$40,072	\$45,574	\$51,115
Median HHI:	\$21,498	\$27,622	\$30,996
% of HH at \$50 -\$75K	11.7%	12.5%	14.3%
% on food stamps	33.7%	32.8%	30.7%
% of HH under \$50,000	73.3%	68.8%	66.3%
% of HH over \$50,000	26.7%	31.2%	33.7%
% of Students grades K	1.3%	1.5%	1.8%
% of Students grades 1-4	1.8%	3.9%	4.9%
% of Students grades 5-8	3.2%	4.7%	4.9%
% of Students grade 9-12	4.2%	5.0%	5.6%
NMTC Area:	Severe Distress or Non-Metropolitan		
# of Parking Stalls:	Ample parking		
Year Built	1966		
Prior Use of Bldg.	Office		
Is the bldg sprinklered:	No		
Is there an elevator:	No		
Traffic Issues:	None known		
Prop Assemblage:	No		
Current Occ. Use:	Office		
# of Stories:	1		
# of Bathrooms:	10 stalls total – 3 male, 7 female		
# of Classrooms:	8 with additional offices that can be converted to classrooms		
Env. Issues:	None known		
Condition of Interior:	Good		
Bldg expansion Possible:	No		
Comments/Notes	Property to be delivered vacant - existing leases terminable within 30 days		





Found 1" Light Print
Edinboro Pa





ATTACHMENT-23

Start-Up Plan

LEAD Academy Start-Up Plan

Task	Start Date	End Date	Responsibility
Application Preparation	November 2017	Dec. 18, 2017	LEF Board and EMO
Community Outreach	March 2017	August 2018	LEF Board and EMO
Zoning/Permitting	February 2018	March 2018	LEF Board and EMO
Secure Facility (Contract)	February 2018	March 2018	LEF Board and EMO
Renovations (if needed)	February 2018	July 2018	LEF Board and EMO
Hire Principal	February 2018	March 2018	LEF Board and EMO
Enrollment Period	February 2018	June 2018	LEF Board and EMO
Lottery (if needed)	July 2018	July 2018	Principal and Staff
Proof of Insurance	June 2018	June 2018	LEF Board and EMO
Compliance relating to Public Records	April 2017	Ongoing	LEF Board and EMO
Governing Board Training	January 2018	May 2018	EMO and Consultants
Staff Recruiting & Hiring	March 2018	July 2018	LEF Board, Principal, and EMO
Marketing	February 2018	August 2018	LEF Board, Principal, and EMO
Contract Food Service and Transportation	June 2018	July 2018	LEF Board, Principal, and EMO
Student Registration	February 2018	August 2018	LEF Board, Principal, and EMO
Admin. Training & Orientation	May 2018	August 2018	LEF Board, Principal, and EMO
Faculty and Staff Training, Development, and Orientation	June 2018	August 2018	LEF Board, Principal, and EMO
Employee Benefits and Payroll Calendar Developed	April 2018	July 2018	LEF Board and EMO
Verification that no religious symbols, status or artifacts on or about the property	June 2018	June 2018	LEF Board and EMO
501c3 Application Filed	November 2017	December 2017	LEF Board and EMO
Fingerprinting	March 2018	August 2018	Principal and EMO
Inspections (ALL) CO, Fire, Health, Traffic Environmental Testing, ADA Safety, etc.	June 2018	August 2018	LEF Board and EMO
Final Site Plan	July 2018	August 2018	LEF Board and EMO
Install Telephones, Internet	May 2018	August 2018	Principal and EMO
Space and Classroom Equipment/Furniture	July 2018	August 2018	Principal and EMO
Professional Development	March 2018	Ongoing	Principal and Staff and EMO
LEAD Academy Opens	August 2018	August 2018	Entire School Community

ATTACHMENT-24

Transportation, Food, and Auxiliary Services

LEAD Academy

Transportation Plan and Auxiliary Services

As a community school, it is expected that the majority of students attending the school will be transported by parents and that older students will drive to school. To the extent feasible, the School will promote parent car-pools. The School will try to contract with the district for transportation services. If a contract cannot be negotiated with the district, the students will utilize the following options:

- Walk
- Ride a bicycle
- Carpool
- Get dropped off by guardian or another driver
- Drive
- Take a public bus

Route maps obtained from the county's public transportation system will be used to find the nearest bus stop from the student's home to the school. The School will also investigate other transportation options, which could include contracting with private providers. Many of the high school students are of driving age and own a car or carpool with someone who drives.

All students for whom it is stipulated in an IEP will receive appropriate transportation in an adequately equipped vehicle to and from school and all school-related functions. The School will contract with licensed transportation service providers for handicap transportation for qualified students. The School will ensure compliance with federal and state regulations. All necessary arrangements may be made to ensure that transportation is not a barrier to equal access. For extracurricular activities such as field trips the School will contract with private providers.

Food Service:

The proposed school would like to negotiate with the district to provide meal service to our students. Otherwise, the School will likely contract out for food services. The School desires a vendor who will provide nutritious, balanced meals that can help students reach and maintain a healthy weight. The meals will be served to students qualifying for free and reduced meals. Food Service will meet the National School Lunch Program requirements and will meet or exceed all of the nutrient standards recommended by The Dietary Guidelines for Americans and the Institute of Medicine.

The Board will require the vendor to supply a monthly menu that meets the requirements of the National School Lunch Program and the Alabama Department of Education. These menus will be published monthly and presented to parents and students. A copy of these menus will be kept with the record(s) of student participation. The food vendor will be required to submit evidence of proper meal balance and portion size.

The local health department will be notified of the School's existence and intent to

provide food service to public school students as described herein. The School or vendor will apply for a "Permit to Operate" and always maintain current certification/licensure. The private vendor will be required to maintain and supply the School with daily records of all lunches served and current copies of inspection and insurance certificates. The School agrees to have two (2) annual inspections as required to maintain the Food Sanitation Certificate from the Alabama Department of Health.

The School will follow the following procedures when distributing and processing Free and Reduced Meal Applications:

- The School will distribute a Free and Reduced Meal Application to all of its students within the first five (5) days of school.
- Applications will be available in multiple languages and on our website.
- Returned applications will be evaluated by the School's administrators on the basis of the current table for income and number of persons in the household to determine free or reduced price status.
- A response will be sent to the student's parent/guardian. In accordance with the National School Lunch Act (42 U.S.C. 1751(b)(2)(c)), a confidential list is then compiled and forwarded to the Director.
- Meal benefits begin the day the application is approved, continue through the school year in which the application is approved, and extend for approximately the first twenty (20) days of the next school year. All students approved for free or reduced price lunch will be entitled to receive a breakfast in the same category.
- Applications will be retained for three (3) years beyond the current eligibility year.
- Audit checks will be completed to compare the number of free and reduced price meals claimed to the number of approved active applications.
- Applications will be kept confidential as per USDA requirements.
- The School will collaborate with the district to process as many students as possible via a Direct Certification Method using data provided to the district by the ALDOE.
- Records will be kept regarding how applications were selected for verification, the date(s) notices were sent, notes on contacts made, the results, reasons for any changes in eligibility, and the official's signature.

Appropriate nondiscrimination notices will be made including the prominent posting of the USDA nondiscrimination poster.

LEAD Academy

Insurance

The LEAD Academy will obtain all required health, worker's compensation general liability, property insurance and directors and officer's liability coverage in accordance with the Charter Contract that will be signed once this application is approved. The School shall meet all applicable state and local health, safety and civil rights requirements. A description of procedures that identify various risks and provide for a comprehensive approach to reduce the impact of losses; plans to identify, minimize, and protect others from violent or disruptive student behavior; and the manner in which the school will be insured, including whether or not the school will be required to have liability insurance, and, if so, the terms and conditions thereof and the amounts of coverage.

The proposed school will comply with requirements specified by the state statutes regarding insurance and liability coverage. The school will maintain appropriate Commercial General Liability Insurance, Automobile Liability Insurance, Workers' Compensation Insurance with appropriate limits, and Professional Liability Insurance. The school will provide proof of insurance to the before the initial opening day of classes for each school year. We will comply with the school district's insurance requirements.

Acceptable Insurance Providers:

Insurance providers must be authorized by subsisting certificates of authority by the Department of Financial Services of the State of Alabama, or (II) an eligible surplus lines insurer under Alabama Statutes. In addition, the insurer or the providers with which the insurer contracts must have a Best's Rating of "A" or better and a Financial Size Category of "VI" or better, according to the latest edition of Best's Key Rating Guide, published by A.M. Best Company.

Coverage; The school's insurance shall cover the school (and its subcontractors, to the extent that it is not otherwise insured) for those sources of liability which would be covered by the latest edition of the standard Workers' Compensation Policy, as filed for use in Alabama by the National Council on Compensation Insurance, without restrictive endorsements.

The school will obtain and maintain insurance at a minimum in the following amounts:

1. Errors and omission: one million dollars (\$1,000,000) per claim;
2. General liability: one million dollars (1,000,000) per occurrence;
4. Real and personal property: the appraisal value of the building and content;
5. Fidelity bonds: no less than two hundred fifty thousand dollars (\$250,000) to cover employee dishonesty;
6. Automobile liability: one million dollars (1,000,000) per occurrence; and
7. Workers compensation: as specified by law

(Please, see the following page)

5251 Hampstead High St.
Unit 200
Montgomery, AL 36116



P: 334.270.6824
F: 334.270.6797

www.assuredptrnl.com

Charlotte Meadows
LEAD Academy of Montgomery County
600 Court St.
Montgomery, AL 36104

December 13, 2017

Re: Insurance Indications for Budgeting Purposes

Charlotte,

It was very nice to speak with you today regarding LEAD Academy. As we discussed, the figures provided herein are ballpark indications based on estimated exposures and current rates. When we get within 120 days out from the proposed effective date, we can start working on applications and begin the quoting process.

Here are the insurance companies we would approach for quotes: Great American, Cincinnati, Philadelphia, The Sheffield Fund, Benchmark, and AlaCOMP

If you have any questions or need anything else, please let me know.

Thank you,

David Peel, CIC
Assured Partners
(334) 270-6595
david.peel@assuredpartners.com

ATTACHMENT-26

Budget Narrative for Start-up and 5-year Budget

LEAD Academy

Budget Narrative

Start-up Budget and Assumptions

The Board of Directors of the foundation is committed to balancing the school's start-up budget and operation on a solid financial foundation. These efforts are based on a mixture of fund-raising, donations, and loans. Currently, the basic sources of start-up revenue will come from loans American Development Corporations (Attachment 21).

Assumptions: LEAD Academy will be leasing all of its school furniture, computers for lab, teacher laptops, projectors, printers, and copiers. Lease payments will be differenced and will not start until two months after the first day of school. Based on our relationships and the working relationship of the EMO with many vendors, these similar arrangements were done before. The building lease will also start in September 2018.

Salary expense assumptions are listed below:

- During the start-up year, we will hire one principal, one, assistant principal, one administrative assistant/registrar upon approval of this application.
- The principal, assistant principal and the secretary will be hired 6 months prior to the school opening. Total administrative cost is \$114,560.
- Teachers will be hired 3 months prior to the school to help registration, meeting with parents and preparation of academic programs. Cost is \$43,200.
- Total salaries and benefits for administrative and teachers cost are \$157,760.

We will lease a temporary office space to do enrollment and advertisement, until our proposed school building is ready. We anticipate to spend \$10,250 on facility expenses. Total start-up cost will be around 193,000.

ACD will provide funds to complete our start-up tasks. We will receive \$200,000 from ACD. This amount was pledged based on one of our Board members personal credit and good working relationships. Board of Directors and the principal will play important roles collectively to accomplish some of the following start-up tasks during the start-up year.

Budget Projections and Assumptions from Year-1 to Year-5

Although the proposed school has no financial history and capital, Board members of the LEF have a great deal of expertise and background in finance and banking. Board members will be committed to providing their personal credit whenever necessary to carry out the mission and vision of the charter schools.

Upon approval of this proposal, the board members will organize an aggressive fundraising campaign. The fundraising plan will include the following strategies:

- Soliciting funds from corporations and local businesses,
- Soliciting funds from private foundations,
- Conducting business roundtable meetings with lenders and potential donors,

- Soliciting donations from national organizations.

We anticipate to receive donations of \$100,000 in the form of cash and goods such as computers and/or school furniture. This amount was not included in the budget because there is no firm commitment yet. Additionally, several grant applications will be made to local and national philanthropic organizations.

The proposed budget is geared towards achieving high academic standards while ensuring financial sustainability. The main source of funding for the proposed school will come from state, federal, and local funds. First year's revenue (\$2,697,169) is estimated based on an average daily membership of 360 students receiving an average of \$7,211. We anticipate to receive \$5,130, \$1,556, and \$786 from state, federal, and local funds, respectively. As we add new grade levels, our enrollment increase from 360 to 1032 students in year-five. The school will participate in the National Lunch Program.

Enrollment Projections first 5-years and at capacity:

Grades	Number of Students					
	Year 1 2018-19	Year 2 2019-20	Year 3 2020-21	Year 4 2021-22	Year 5 2022-23	At Capacity 2024-25
K	96	96	96	96	96	96
1	72	96	96	96	96	96
2	48	72	96	96	96	96
3	48	48	72	96	96	96
4	48	48	48	72	96	96
5	48	48	48	48	72	96
6		96	96	96	96	96
7			96	96	96	96
8			0	96	96	96
9			48	48	96	96
10				48	48	96
11					48	96
12						96
Total	360	504	696	888	1032	1248

Staffing Projections

Based on the above enrollment growth, we will have 25.5 FTE in our first year. The proposed school will have both full and part-time teachers to accommodate our proposed enrollment growth. Staff to student ratios will be approximately 13 to 1. We will acquire a second building to house our growing high school enrollment. Thus rent amount increase drastically in the fourth year. Below table summarizes our staffing need in the next five years.

Staffing Chart (FTE)						
#	Position	YEAR-1	YEAR-2	YEAR-3	YEAR-4	YEAR-5
1	Executive Director	0	0	1	1	1
2	Principal	1	1	1	2	2
3	V. Principal	1	1	1	2	3
4	Business Manager	0	0	1	1	1
5	Teacher	17	25	34	50	62
6	Teacher Aide	2	4	4	4	4
7	Secretary/Admin Assist.	1	2	2	3	4
8	Sp. Ed Teacher	1	2	2	2	3
9	ESL Teacher	0	1	1	1	1
10	Counselor (SEL)	0	1	1	2	2
11	Medical Assistant	1	1	2	2	2
12	Librarian	1	1	2	2	2
13	IT Tech	0.5	1	1	1	1
Total		25.5	40	53	73	88

Benefits and Insurance:

Salary ranges listed below. Faculty and staff benefits will be calculated to be 28% of the total personnel salaries. The LEF Board may opt out from the state retirement system. Final decision will be made by the board before the school opening. Benefit package will be evaluated annually to determine what is best for our employees.

Salary Range			
#	Position	Minimum	Maximum
1	Executive Director	\$90,000	\$125,000
2	Principal	\$80,000	\$110,000
3	V. Principal	\$50,000	\$75,000
4	Business Manager	\$45,000	\$60,000
5	Teacher	\$35,000	\$60,000
6	Teacher Aide	\$20,000	\$35,000
7	Secretary/Admin Assist.	\$22,000	\$45,000
8	Sp. Ed Teacher	\$40,000	\$65,000
9	ESL Teacher	\$40,000	\$65,000
10	Counselor (SEL)	\$40,000	\$65,000
11	Medical Assistant	\$25,000	\$45,000
12	Librarian	\$25,000	\$45,000
13	IT Tech	\$35,000	\$60,000

Debt Services:

The ACD will provide financing for the start-up and first year of operation, if needed. ACD will also help our facility acquisitions. The proposed school will pay this loan back within 60 months.

Management:

Board of Directors of the LEAD Education Foundation will contract with Unity School Services to receive comprehensive education management services that include: Facility, equipment procurement, Management consulting, Teacher training, Educational programing, enrollment, hiring and firing, and operational support. The annual contract amount will be 15% of the school operational budget.

Facility

We will enter a lease to purchase agreement. We will use only 25,000 sq. ft. space for the first year of operation. As we increase enrollment, we will expand and occupy rest of the building. Our goal is to expand to a second building nearby to house our high school students.

Transportation:

The school will not provide bus service to its students except Special education students whose IEP requires that service. There may be bus transportation for field trips and school related academic or athletics competitions.

Attachment-26: Start-Up Budget

		Start-Up Feb. 2018-Aug. 2018	
#	SUMMARY		Assumptions
1	Total Revenue	\$200,000	
2	Total Expenses	\$193,010	
3	Net Income	\$6,990	
4	Revenue per Pupil	N/A	
5	Expenses per Pupil	N/A	

#	REVENUE
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Local Revenues \$200,000 Loan from ACD will for Start-up expenses

State Revenues

Federal Revenues

TOTAL REVENUES	\$200,000
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#	EXPENSES
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Personnel Salaries and Benefits	
----------------------------------------	--

6	Principal	\$45,000	P. will be hired 6 months prior school opening
7	Exec. Director	\$0	ED is hired in 3rd year
8	Asst Principals	\$28,000	AP will be hired 4 months prior school opening
9	Business Manager		
10	Teachers Salaries	\$33,750	3 teachers will be hired 3 months prior to school opening
11	Teacher Aides		
12	Sp Ed Teacher		
13	ESL Teacher		
14	Secretary	\$16,500	will be hired 6 Months prior school opening
15	Medical Assistant		
16	Librarian		
17	IT Tech		
18	Counselor		
19	Employee Benefits	\$34,510	28% of annual salary
20	Staff Development Costs		
21	Sub teachers		
22	Subtotal	\$157,760	

School Operation	
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23	Student Supplies and Classromm Materials	
24	Textbooks	
25	Library and Media Center Materials	
26	Computers and Materials	\$3,000
27	IT & Network	
28	Classroom Furnishings and Supplies	
29	Student Assessment Materials	
30	Contracted Student Services	
31	Student Recruitment	\$20,000
32	Subtotal	\$23,000

For advertisement

Facility Expenses	
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33	Rent for Building	\$9,000
34	Building Maintenance and Repairs	
35	Utilities	\$1,000
36	Janitorial Supplies	\$250
37	Equipment Rental and Maintenance	
38	Contracted Building Services	
39	Subtotal	\$10,250

Temporary office space for enrolment purposes

Office Expenses and Contracted Services	
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40	Office Supplies and Materials	\$2,000
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41	Office Furnishings and Equipment (lease)	
42	Legal	
43	Board Training & Misc.	
44	Postage	
45	Insurance	
46	Loan & Interest Payments	
47	Transportation	
48	Food Service	
49	EMO Fee	
50	Accounting and Payroll Services	
51	Other General Expense	
52	Subtotal	\$2,000
53	TOTAL EXPENSES	\$193,010

Attachment-26: Budget

		YEAR-1 2018-19	YEAR-2 2019-20	YEAR-3 2018-20	YEAR-4 2019-21	YEAR-5 2018-21	Assumptions
#	SUMMARY						
1	Total Revenue	\$2,616,464	\$3,660,253	\$5,051,973	\$6,443,692	\$7,487,482	
2	Total Expenses	\$2,511,397	\$3,621,061	\$4,792,124	\$6,345,113	\$7,429,000	
3	Net Income	\$105,067	\$39,192	\$259,848	\$98,579	\$58,482	
4	Revenue per Pupil	\$7,268	\$7,262	\$7,259	\$7,256	\$7,255	
5	Expenses per Pupil	\$6,976	\$7,185	\$6,885	\$7,145	\$7,199	
Enrollment Projections		360	504	696	888	1032	
#	REVENUE						
	Local Revenues	281,461	391,250	537,634	684,019	793,807	Incl. carry over of \$6,990
	State Revenues	1,791,396	2,507,954	3,463,366	4,418,777	5,135,335	
	Federal Revenues	543,607	761,049	1,050,973	1,340,896	1,558,339	
TOTAL REVENUES		\$2,616,464	\$3,660,253	\$5,051,973	\$6,443,692	\$7,487,482	
#	EXPENSES						
		YEAR-1	YEAR-2	YEAR-3	YEAR-4	YEAR-5	
Personnel Salaries and Benefits							
6	Principal	90,000	91,800	93,636	185,000	188,700	2% Increase annually
7	Exec. Director	0	0	110,000	112,200	114,444	ED is hired in 3rd year
8	Asst Principals	70,000	141,000	143,820	146,696	300,000	
9	Business Manager	0	0	55,000	56,100	57,222	
10	Teachers Salaries	680,000	1,050,000	1,428,000	2,150,000	2,666,000	Average Salary is \$40K
11	Teacher Aides	60,000	124,000	126,480	129,010	131,590	\$30K/per year
12	Sp Ed Teacher	50,000	51,000	52,020	53,060	54,122	
13	ESL Teacher	0	50,000	51,000	52,020	53,060	
14	Secretary	32,000	65,000	66,300	97,000	129,000	
15	Medical Assistant	28,000	28,560	29,131	29,714	30,308	
16	Librarian	35,000	35,700	72,000	73,440	74,909	
17	IT Tech	25,000	50,000	51,000	52,020	53,060	
18	Counselor	60,000	61,200	62,424	123,600	126,072	
19	Employee Benefits	316,400	489,513	655,427	912,761	1,113,976	28% of annual salary
20	Staff Development Costs	12,000	12,240	12,485	12,734	12,989	
21	Sub teachers	8,000	8,160	8,323	8,490	8,659	
22	Subtotal	1,466,400	2,258,173	3,017,046	4,193,845	5,114,112	
School Operation							
23	Student Supplies and Materials	\$9,000	\$12,600	\$17,400	\$22,200	\$25,800	\$25/per student
24	Textbooks	\$27,000	\$37,800	\$52,200	\$66,600	\$77,400	\$75/per student
25	Library and Media Center Materials	\$9,000	\$12,600	\$17,400	\$22,200	\$10,320	\$25/per student
26	Computers and Materials (lease)	\$48,660	\$48,660	\$48,660	\$48,660	\$48,660	60 mo. Lease payment
27	IT & Network	\$6,000	\$12,000	\$15,000	\$15,000	\$15,000	
28	Classroom Furnishings and Supp. (lease)	\$24,324	\$24,324	\$24,324	\$24,324	\$24,324	
29	Student Assessment Materials	\$3,600	\$5,040	\$6,960	\$8,880	\$10,320	\$10/per student
30	Contracted Student Services	\$30,000	\$40,000	\$45,000	\$50,000	\$60,000	Sp. Ed services
31	Student Recruitment & Advertisement	\$25,000	\$25,000	\$20,000	\$0	\$0	
32	Subtotal	\$182,584	\$218,024	\$246,944	\$257,864	\$271,824	
Facility Expenses							
33	Rent for Building	\$300,000	\$420,000	\$600,000	\$750,000	\$750,000	lease rate \$12/sq.ft
34	Building Maintenance and Repairs	\$15,000	\$15,000	\$15,000	\$15,000	\$25,000	
35	Utilities (Water, Gas, Power)	\$60,000	\$80,000	\$95,000	\$120,000	\$120,000	
36	Janitorial Supplies	\$5,000	\$6,000	\$7,500	\$12,000	\$15,000	
37	Equipment Rental and Maintenance	\$2,000	\$3,000	\$3,000	\$3,000	\$50,000	
38	Contracted Building Services	\$32,000	\$34,000	\$36,000	\$60,000	\$65,000	Cleaning&Costodial
39	Subtotal	\$414,000	\$558,000	\$756,500	\$960,000	\$1,025,000	

General Expenses & Contracted Services							
40	Office Supplies and Materials	\$12,000	\$15,000	\$20,000	\$24,000	\$27,000	
41	Office Furnishings and Equipment (lease)	\$24,324	\$24,324	\$24,324	\$24,324	\$24,324	60 mo. Lease payment
42	Legal	\$5,000	\$7,000	\$10,000	\$10,000	\$10,000	
43	Board Training & Misc.	\$1,000	\$2,500	\$3,500	\$5,000	\$7,500	
44	Postage	\$5,000	\$2,500	\$3,000	\$4,000	\$5,000	
45	Insurance	\$8,500	\$9,000	\$12,000	\$15,000	\$17,500	
46	Loan & Interest Payment	\$48,660	\$48,660	\$48,660	\$48,660	\$48,660	\$200K payments to ACD
47	Transportation	\$5,000	\$7,000	\$12,000	\$15,000	\$20,000	
48	Food Service	\$4,000	\$6,000	\$8,000	\$10,000	\$13,000	
49	EMO Fee	\$310,929	\$434,881	\$600,150	\$765,419	\$830,080	
50	Accounting and Payroll Services	\$24,000	\$30,000	\$30,000	\$12,000	\$15,000	
51	Other General Expense						
52	Subtotal	\$448,413	\$586,865	\$771,634	\$933,403	\$1,018,064	
53	TOTAL EXPENSES	\$2,511,397	\$3,621,061	\$4,792,124	\$6,345,113	\$7,429,000	

ATTACHMENT-27

**Letters of Support from the Community Leaders
and Prospective Parents**

Congress of the United States
House of Representatives
Washington, DC 20515-0102

December 7, 2017

Alabama Department of Education
Alabama Public Charter School Commission
ATTN: The Honorable Mac Buttram
50 North Ripley St,
Montgomery, AL 36130

Dear Alabama Public Charter School Commission:

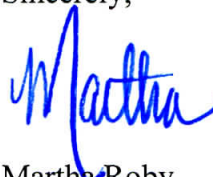
I am writing today in regards to the application of LEAD Elementary Academy to become a charter school in Montgomery County. I was recently informed by a constituent that LEAD is seeking approval to open in August 2018.

If approved by your commission, it is my understanding that the LEAD Elementary Academy will be a K-5th grade STEAM charter school focused on four core values: Leading, Engaging, Achieving, and Developing children to reach their greatest potential. According to the information sent to me, the school plans to engage each student in the education process, equipping them with the tools necessary to succeed and become leaders in the community.

I am a strong supporter of school choice and am grateful for your work to increase the number of public charter schools in our state. As you review the qualifications of LEAD Elementary Academy, please note my interest in the application receiving full and fair consideration.

Thank you for all you do to better the lives of the children in our state. If you have any questions or if I can ever be of assistance, please do not hesitate to reach out to me or my staff.

Sincerely,



Martha Roby
Member of Congress



ALABAMA
HOUSE OF REPRESENTATIVES

11 S. UNION STREET, MONTGOMERY ALABAMA 36130

REP. TERRI COLLINS
DISTRICT NO. 8
POST OFFICE BOX 21
DECATUR, ALABAMA 35602

STATE HOUSE: 334-242-7693
DISTRICT: 256-227-0360
EMAIL: terri.collins@alhouse.gov

November 27, 2017

Alabama Public Charter School Commission
Alabama State Department of Education
Attention: The Honorable Mac Buttram
PO Box 302101
Montgomery, AL 36130

Dear Mr. Buttram:

I am pleased to provide a letter of support for LEAD Elementary Academy of Montgomery County. Its core values are Lead, Engage, Achieve and Develop our students to the highest levels of their abilities. I believe these priorities will encourage the students in their life path.

Many students and families will benefit from this excellent program focusing on academic goals to ensure future success. There is a tremendous need in Montgomery County for this program and many more like it.

As State Representative for District 8 and a sponsor of the School Choice Act, I recognize that LEAD Elementary Academy will be an asset to the community and surrounding area, and I fully endorse this school.

Sincerely,

A handwritten signature in cursive script that reads "Terri Collins".

Terri Collins

TC:cm

November 29, 2017

The Honorable Mac Buttram
Alabama Public School Charter Commission
Alabama Department of Education
PO Box 302101
Montgomery AL 36130

Mr. Buttram:

I write to urge the Public School Charter Commission to authorize the LEAD Elementary Academy in Montgomery. I am a former four-term member of Congress, and in 2015, I ran for Mayor of Montgomery. My wife and I are residents of the city, where I have spent 34 years of my life. I am also a graduate of Montgomery's public school system: that system was once strong enough that a conventional non-magnet school could still prepare me to excel at Harvard College and Harvard Law School and to embark on a life in public service.

I will be frank with the Commission: during the last mayoral campaign, each of the five of us who ran found occasion to criticize charter schools. I was in the relative middle, never denouncing charters across the board, but raising concerns that a headlong rush toward charters could divert energy from the mission of improving all schools and urging a more dedicated effort to improve what we already had.

Sadly for Montgomery, the progress I hoped for has yet to raise its head. *Montgomery's non-magnet public schools* today represent a collective failure. MPS consistently leads the state in the number of failing schools. Parents are abandoning our community for better systems east and north of us. Corporations are declining to expand here because our schools rank so low. The Department of Education has officially taken control of half the schools, and progress still remains impossible to detect.

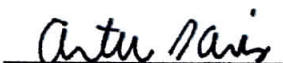
And when progress is demanded, its champions are too often derided as being anti-teacher, as if teachers require or prefer mediocrity. Or the subject is changed to race or partisan politics.

That lack of progress or chance of progress leads me to agree that Montgomery urgently needs an alternative: *some new option that can benefit at least some students and serve as a template that can be scaled to the wider system.* LEAD represents that much needed new idea and I think it can work.

I admire a number of things about its approach. First, the model LEAD follows is one that has achieved results in Houston, a city recognized for its innovation in education. Second, the STEM focus is in sync with where Montgomery is headed as an economy: this community has the tools to be the next Chattanooga if we provide a workforce to match that future. Third, the LEAD model has a track record in succeeding with kids from low income backgrounds. Fourth, *LEAD will not duplicate or compete with our magnet program, as it is currently structured.*

The team sponsoring LEAD in Montgomery knows they have their work cut out. They must sell LEAD to parents who don't need their kids to just be a "test case". They must win over community leaders who are skeptics. They will have to build a model that is accountable to every parent and they will have to recruit a first class principal who has *supreme diplomatic skills and a sense of imagination.*

I am hoping and urging you to hope with me. That means giving LEAD a chance.



Artur Davis
Former US Congressman
Jefferson Davis HS, 1986



City of **Montgomery**, Alabama

Office of the
CITY COUNCIL

Todd Strange, Mayor

City Council Members

Charles W. Jinright, President

Tracy Larkin – Pres. Pro Tem

Fred F. Bell

Richard N. Bollinger

David M. Burkette

William A. Green, Jr.

Arch M. Lee

Brantley W. Lyons

Glen O. Pruitt, Jr.

November 28, 2017

Alabama Public Charter School Commission
Alabama State Department of Education
P.O. Box 302101
Montgomery, Alabama 36130-2101

Attn: The Honorable Mac Buttram

Dear Hon. Buttram:

The purpose of this letter is to provide my support for the *LEAD Elementary Academy*, a K-5th grade STEM charter school in Montgomery County. The focus of the school will be on four core areas of Leading, Engaging, Achieving, and Developing each child to their greatest potential.

They will be working with an education service provider who has experience with a successful STEM network since 1990. I believe this will provide each student with tools to help them become leaders in their community, engaged in the education process so they can achieve their highest potential and develop into productive citizens. They will emphasize the areas of Science, Technology, Engineering and Math with arts infused into the curriculum to engage students in learning.

As President of the Montgomery City Council and District 9 Representative, I recognize that LEAD Elementary Academy will be an asset to the community and surrounding area. I fully endorse this school.

Sincerely,

Charles W. Jinright, President
Montgomery City Council
Council District 9



MONTGOMERY COUNTY COMMISSION

ELTON N. DEAN, SR.

CHAIRMAN

RONDA M. WALKER

VICE CHAIRMAN

DANIEL HARRIS, JR.

ISAIAH SANKEY

DOUG SINGLETON

December 12, 2017

Honorable Mac Buttram
Alabama Public Charter School Commission
P O Box 302101
Montgomery, Al 36130-2101

Dear Honorable Buttram:

As Vice Chairman of the Montgomery County Commission, education in Montgomery County is a *significant priority and concern for me. As you are aware, the Montgomery County Public School system is currently facing overwhelming challenges and the best efforts of the Montgomery County Board of Education have proven insufficient to meet these challenges.*

As a parent of two children currently enrolled in non-magnet Montgomery public schools, I have first-hand knowledge of the weaknesses and failures of the system. Although a long-standing advocate of public schools, I see clearly the need for and 'all of the above' approach to meeting our education needs. *Traditional public schools are no longer able to serve the needs of every student, therefore it is irresponsible for leadership to continue insist on squeezing square pegs into round holes. We must expand opportunities for parents and students in an effort to meet the needs of every child.*

To that end, I am writing to express my support for the efforts of *LEAD Elementary Academy* of Montgomery County's mission to provide an innovative academic program for the students of Montgomery County. This out of the box approach is needed to fill the learning gap and provide new opportunities.

I know the founders of the *LEAD Elementary Academy* personally and believe they have the professionalism, intelligence, and passion to make this endeavor a success. They have already demonstrated a desire for transparency and communication with the public, a necessary component I know will continue. *This is an exciting possibility for Montgomery!*

Thank you for considering my strong support of the *LEAD Elementary Academy* of Montgomery County. Please do not hesitate to contact me with any questions, (334) 201-7608.

Sincerely,

Ronda M. Walker
Vice-Chairman

- A COUNTY OLDER THAN THE STATE -

P.O. Box 1667 MONTGOMERY, ALABAMA 36102-1667 PHONE: 334.832.1210



David C. Montiel, M.D.
Terry D. Williams, M.D.
Joseph M. Bailey, M.D.
Thomas S. Moore, M.D.
Jason H. Dorey, M.D.

Byron C. Machen, M.D.
Mark H. LeQuire, M.D.
Gordon V. Smith, M.D.
Philip S. Piasecki, M.D.
David M. Downs, M.D.
Roland Ng, M.D.

Justin W. Phillpott, M.D.
W. Stanley French III, M.D.
Ronald A. Stanton, Jr., M.D.
Mary M. Karst, M.D.
Johnathan L. Hadley, M.D.
Bryan I. Johnston, M.D.

Lauren Thorington, D.O.
Matthew D. Dobbs, M.D.
Greyson L. McGowin, M.D.
Robert W. Williams, Jr., M.D.
Krystal Smith, D.O.

November 30, 2017

Alabama Public Charter School Commission
Alabama State Department of Education
Attn: Dr. Ed Richardson
P.O. Box 302101
Montgomery, AL 36130-2101

Dear Colleagues:

This letter is in support of the LEAD Academy, a K-5 grade charter school. It is imperative that we improve the public school situation in Montgomery. I'm a past president of the Medical Association of the state of Alabama and also am a past president of the Alabama Academy of Radiology. I currently serve as president of Montgomery Radiology Associates, a local radiology practice.

We have many times recruited doctors to the Montgomery area only to find they would not come because of the dismal school situation. We currently have more than one doctor who lives in Auburn (for their school system) and works here in Montgomery.

I believe that Montgomery as a city cannot grow properly without an improvement in our public school system. The charter school system which will properly educate our children is a first step, and I hope that you take my letter of support to heart.

Sincerely,

A handwritten signature in black ink that reads "David C. Montiel". The signature is written in a cursive, flowing style.

David C. Montiel, M.D., FACR
President, Montgomery Radiology Associates, PA

DCM/jc

December 12th, 2017

Alabama Public Charter School Commission
Alabama State Department of Education
Attention: Mac Buttram
P.O. Box 302101
Montgomery, AL 36130-2101

Re: LEAD Elementary Academy

Dear Mr. Buttram:

This letter is in *strong* support of the application of the **LEAD Elementary Academy** to be designated as a charter school in Montgomery, AL.

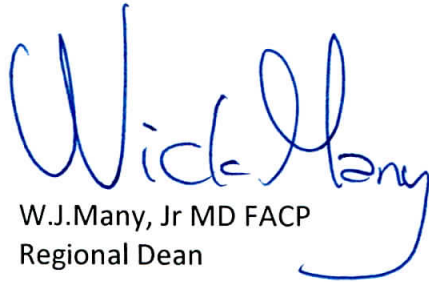
I have been involved in medical education in Montgomery for almost four decades and have come to appreciate the absolute necessity for a strong educational background beginning very early in a child's schooling. All too often, children who have the intellectual aptitude to aspire to professional careers do not have an adequate educational foundation – commencing as early as their elementary years of education. This is due to many factors - lack of motivated qualified teachers, poor leadership, the absence of a strong curriculum - making it very difficult for these students to eventually compete with their peers who were fortunate to have much more positive experiences. Based on the stated mission of the LEAD Elementary Academy and the dedicated individuals serving in leadership positions, I am confident that the students who attend this institution will succeed and achieve their greatest potential due to the mentoring, structure, and exposure to innovative and diverse opportunities.

The need for exceptional educational options also has far reaching implications in regards to economic development in Montgomery. Businesses contemplating locating to Montgomery consider the availability of high quality public education for their employees as a significant factor in their decision. The current status of the Montgomery Public School system is an indeed a major negative aspect in the recruitment of new business to our community. In addition, as my role as Dean of the Montgomery Regional Medical Campus of the UAB School of Medicine, I am keenly aware of a unique impact that poor quality traditional public education has on our community. At present, students graduating from institutions of higher learning have a tremendous amount of educational debt. Specifically, for medical students who will graduate this academic year, the average amount of educational debt approaches \$ 200,000!!! Therefore, when they consider where they will eventually practice, having high quality public education in a community is very important as they cannot afford the additional burden of private school tuition. Thus, we are challenged in the recruitment of new physicians (and other professionals) because of the state of traditional public schools in Montgomery.

Therefore, I wish to reiterate my *strong* support of the application of the LEAD Elementary Academy and trust that its impact on Montgomery will be very beneficial to the students who are fortunate to matriculate there.

Please feel free to contact me (334) 551-2000 or (334) 857-3622 should you wish to discuss this issue further.

Respectfully,

A handwritten signature in blue ink that reads "W. J. Many, Jr." in a cursive style. The signature is positioned above the typed name and title.

W.J. Many, Jr MD FACP
Regional Dean

STEVE GULLEDGE

Post Office Box 242335
Blount Boulevard Station
Montgomery, Alabama 36124-2335 U.S.A.
334-277-2896

December 7, 2017

The Honorable Mac Buttram
Alabama Public Charter School Commission
Alabama State Department of Education
Post Office Box 302101
Montgomery, Alabama 36130-2101

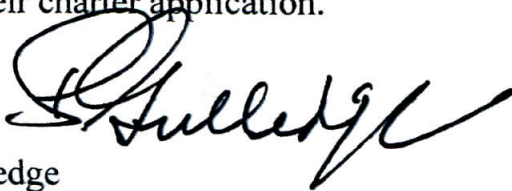
Dear Mr. Buttram :

I am a product of the public school systems of North Carolina, Wisconsin, Iowa and Florida and earned an undergraduate degree from Florida State University in 1971 and an MBA degree from Auburn University in 1974. I have been a resident of Montgomery since the early 70's and started my business here in 1978 which is still operating today. It seems to me that many of the issues I heard discussed concerning public education in Montgomery when I first moved here are still with us today and I am greatly concerned that the effectiveness and value of local public education here has declined significantly over the past 40 plus years.

In consideration of my continued concern for the state of local public education and the effective preparation of young people to enter the workforce, I could not be more happy to learn of the pending foundation of a new charter school in Montgomery to be called LEAD Elementary Academy to serve grades K through 5. I am familiar with the mission, instructional model and leadership of this STEM charter school and it is encouraging that Montgomery may soon have a new elementary school with an innovative and creative academic program tailored to the individual needs of each student to provide the foundation necessary to prepare these students to become a productive member of the local workforce.

I have no doubt that the LEAD Elementary Academy will meet a critical educational need in our community and I would encourage the Alabama Public Charter School Commission to approve their charter application.

Sincerely,



Steve Gullledge

TIJUANNA ADETUNJI

December 7, 2017

Alabama Public Charter School Commission
Alabama State Department of Education
P. O. Box 302101
Montgomery, AL 36130-2101

To the Honorable Mac Buttram:

I understand that *LEAD Elementary Academy*, for grades K-5th has made application to become a charter school in Montgomery County. I believe that this will be a positive asset for families aspiring to give their children better opportunities to learn. As a parent of four children, obtaining quality education in the Montgomery Public School system has been challenging over the years. Failing schools in our zone left us and many other parents with limited choices.

I believe that *LEAD Elementary Academy* will see immediate success because parents are starving for better educational opportunities for their children, especially in this area. The schools focus will be in Leading, Engaging, Achieving, and Developing each child to its highest potential in the core areas of STEM. In an article from my Alma Mata Liberty University where I obtained a Master's in Public Policy notes,

Across the nation, an emphasis on STEM education — science, technology, engineering, and mathematics — is preparing young people to meet the rising demand in critical career fields, many of which are experiencing a shortage of competent candidates. These jobs require specialized skills, prompting governments and organizations to implement initiatives ensuring that educational institutions, from elementary schools to community colleges, universities, and specialized programs, are providing adequate training.

I sincerely hope that you will approve the *LEAD Elementary Academy*, for grades K-5th charter school application. This will place Alabama one step closer to providing our children adequate training to succeed in the future.

All the best,



Tijuanna Adetunji, MPP
The Adetunji Group



HARVEST
FAMILY CHURCH

December 12, 2017

Alabama Public Charter School Commission
Alabama State Department of Education
Post Office Box 302101
Montgomery, AL 36117
Attn: the Honorable Mac Buttram

RE: LEAD Elementary Academy of Montgomery

Dear Mr. Buttram,

I am writing to offer my support for the proposed charter school for Montgomery. As a community spiritual leader, a parent and a grandparent, I believe this learning institution would provide encouraging and up building *learning opportunities for students in Montgomery.*

One of the founding board members, Mrs. Charlotte Meadows, has been a member of our congregation for 23 years. Charlotte's attention and devotion toward the successful education of the youth of Montgomery County and the state of Alabama has motivated her for many years. The other founding board members have also exhibited similar devotion toward the same cause. With this understanding, I believe they are highly qualified to create an outstanding elementary school. I encourage your support and endorsement of this endeavor.

Thank you for your consideration.

Sincerely,

Bill McNeese, Pastor

Yes!

I support Montgomery's S.T.E.M Focused Charter School

Name

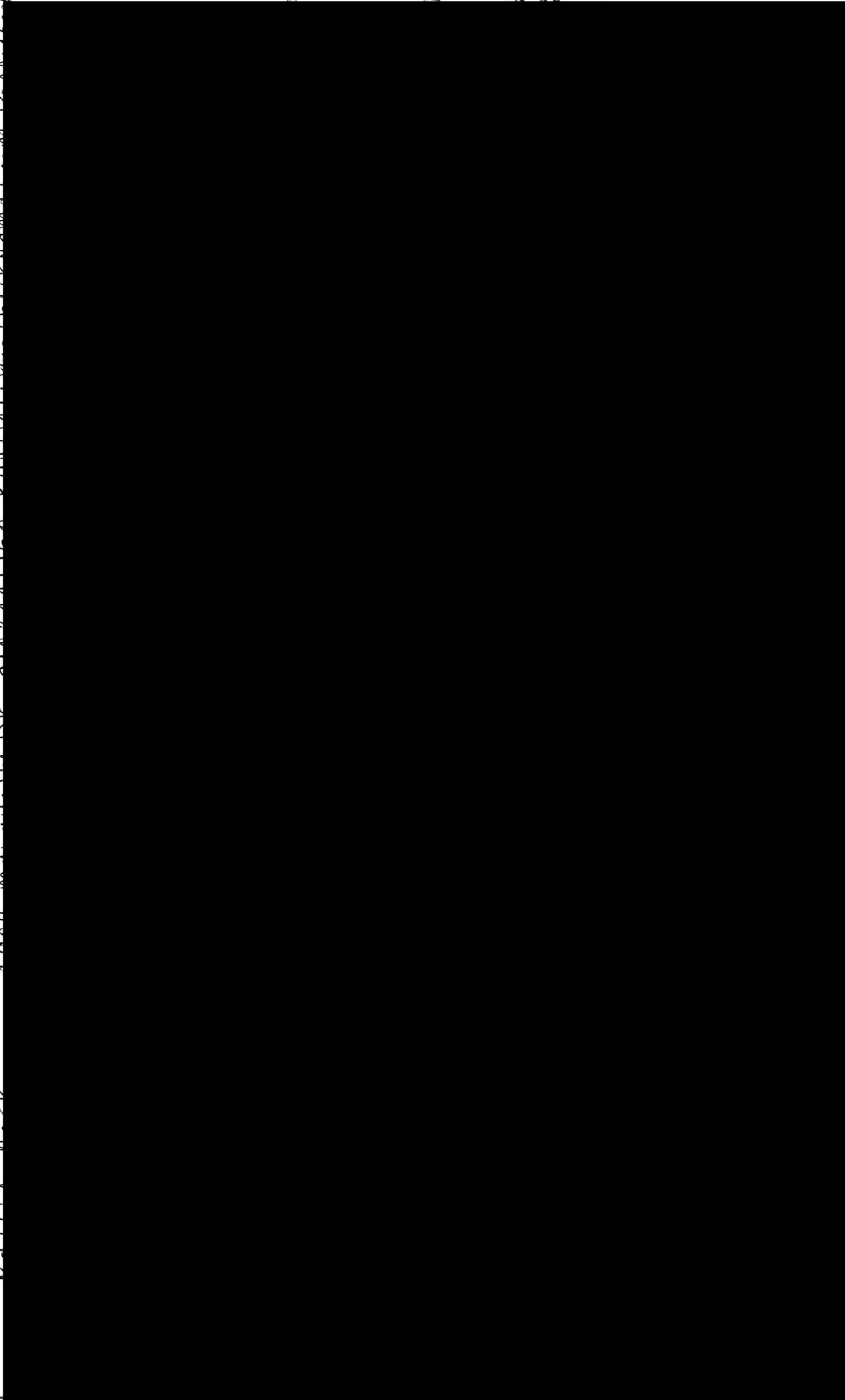
Address

phone

Email

Signature

I have a child in _grade



Yes!

I support Montgomery's S.T.E.M Focused Charter School

Name

Address

phone

Email

Signature

I have a child in _ grade

[Redacted Name] [Redacted Address] [Redacted Phone] [Redacted Email] [Redacted Signature]

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Yes!

I support Montgomery's S.T.E.M Focused Charter School

Name

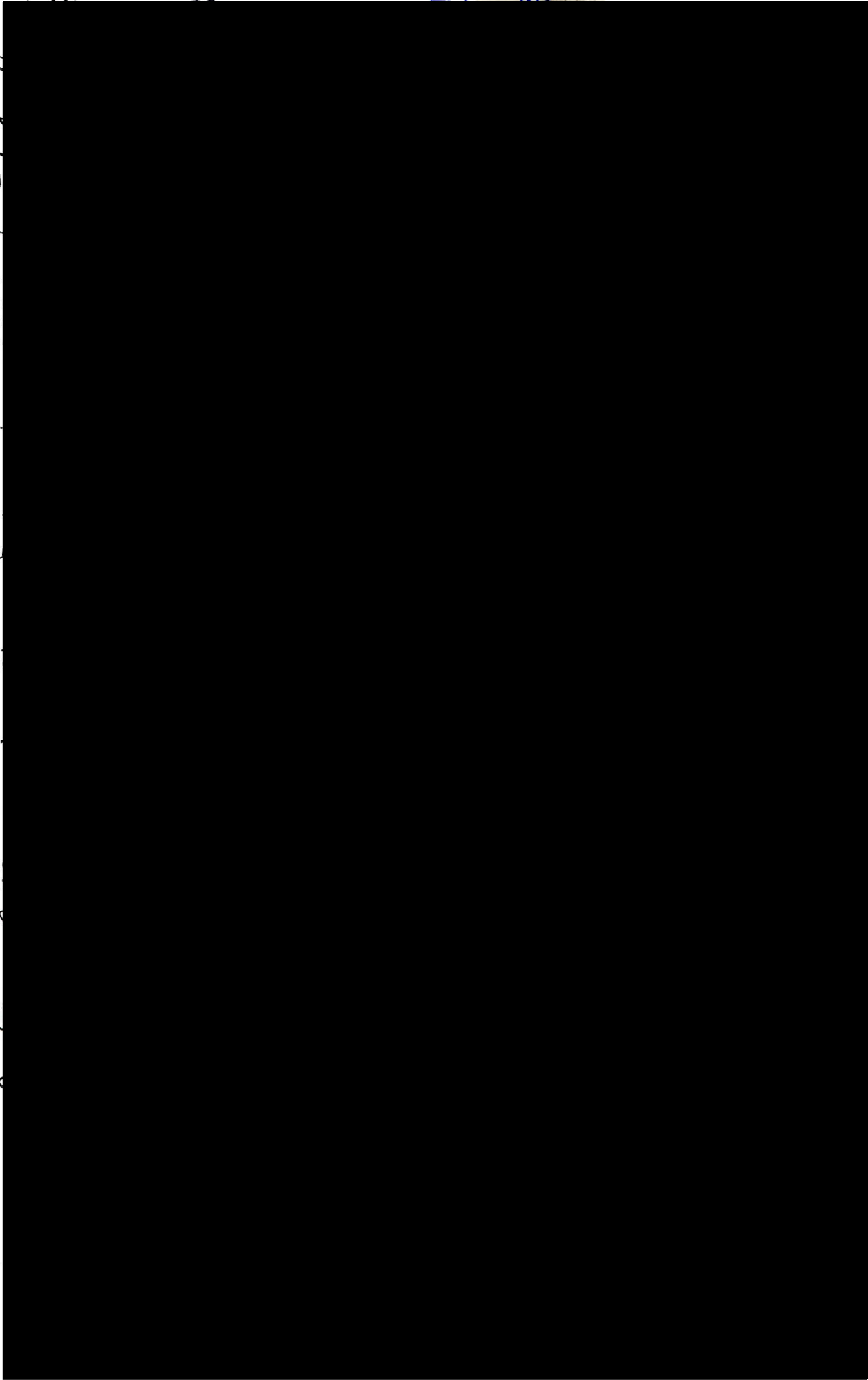
Address

phone

Email

Signature

I have a child in _ grade



05

and

15

1

Yes!

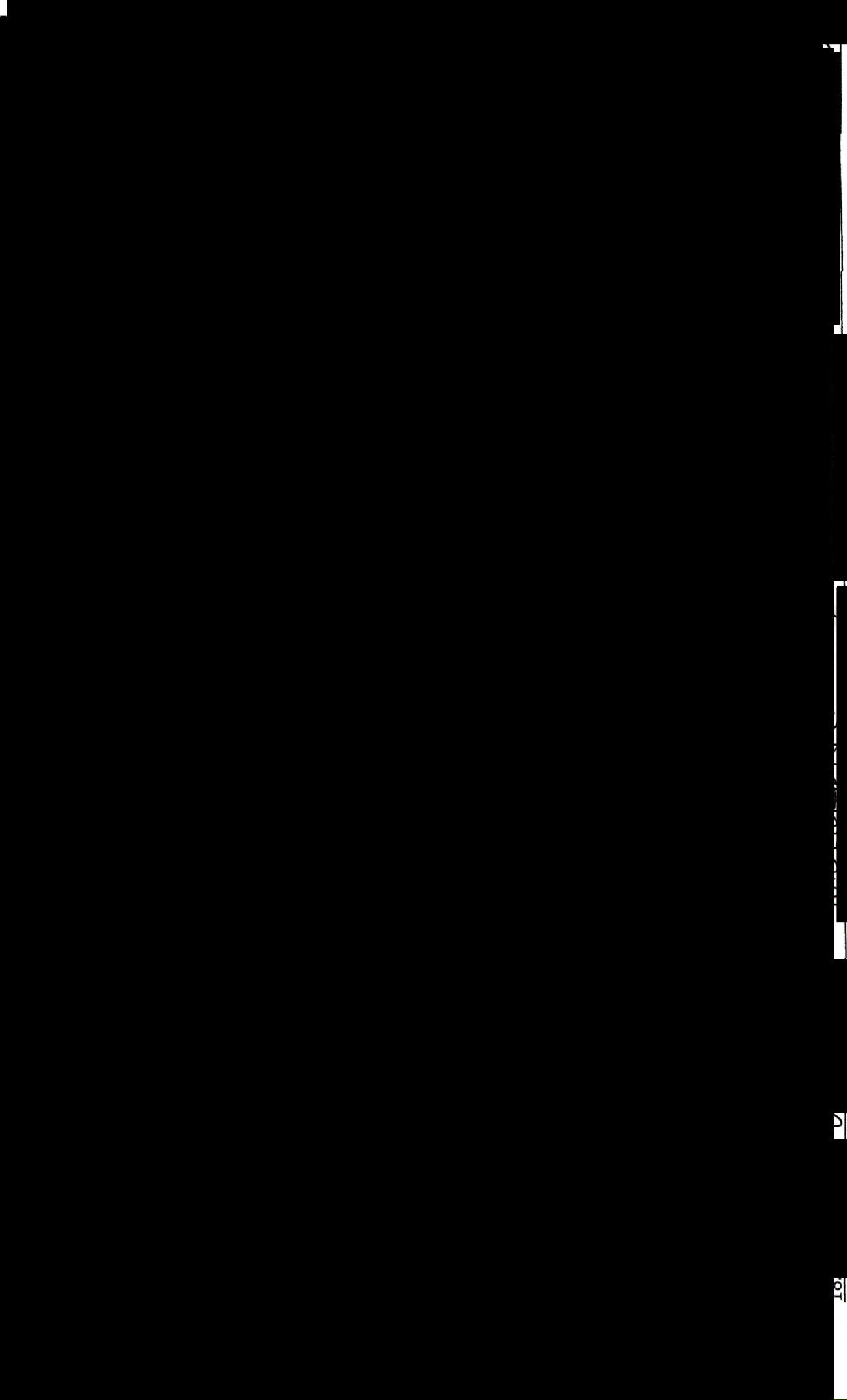
I support Montgomery's S.T.E.M Focused Charter School

Name

Address *Montgomery, AL 36117* phone

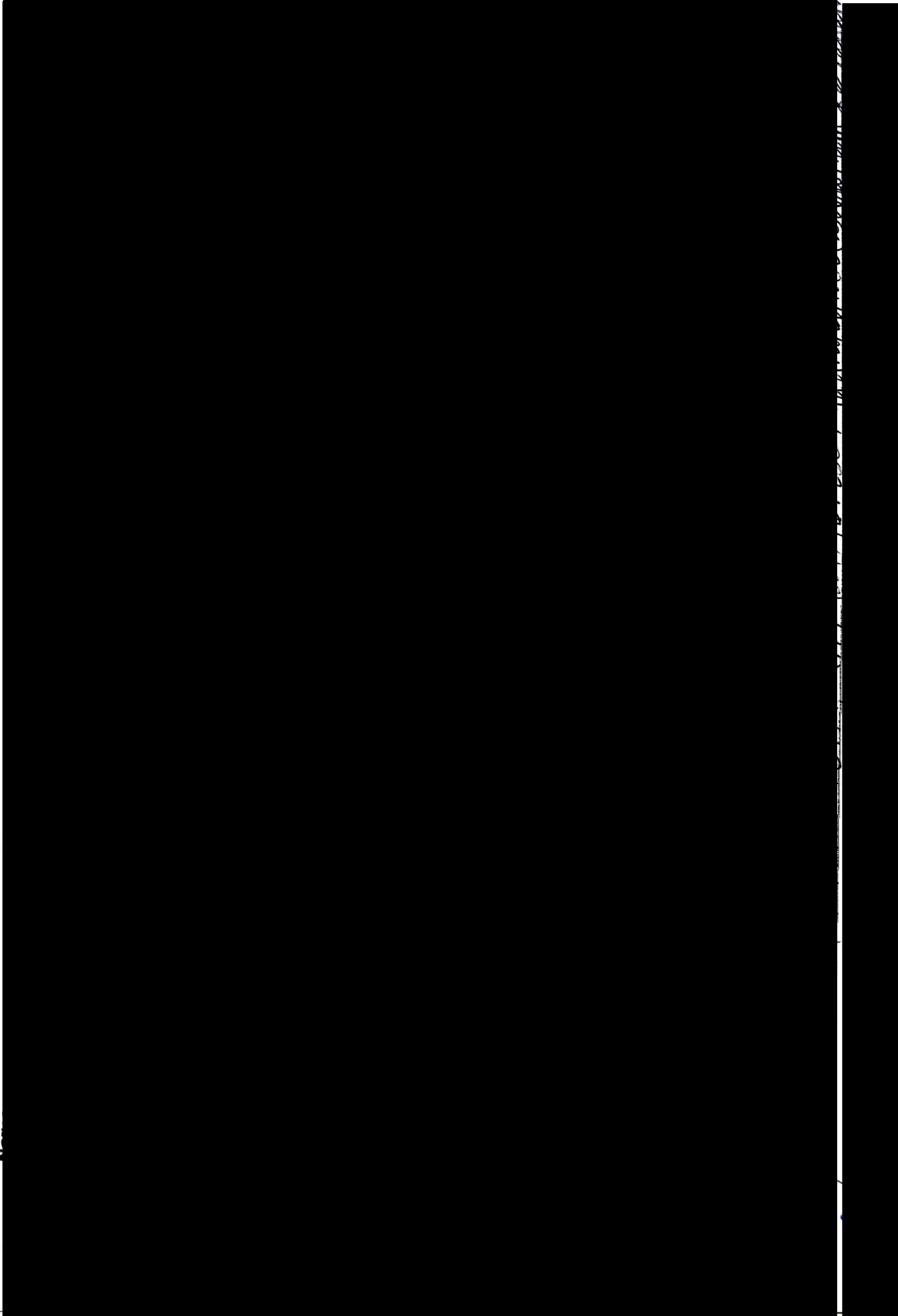
Email

Signature *[Signature]*



Yes!

I support Montgomery's S.T.E.M Focused Charter School



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A vertical line of small, illegible text or a signature running along the right edge of the page, partially obscured by the redaction.

Yes!

I support Montgomery's S.T.E.M Focused Charter School

Name

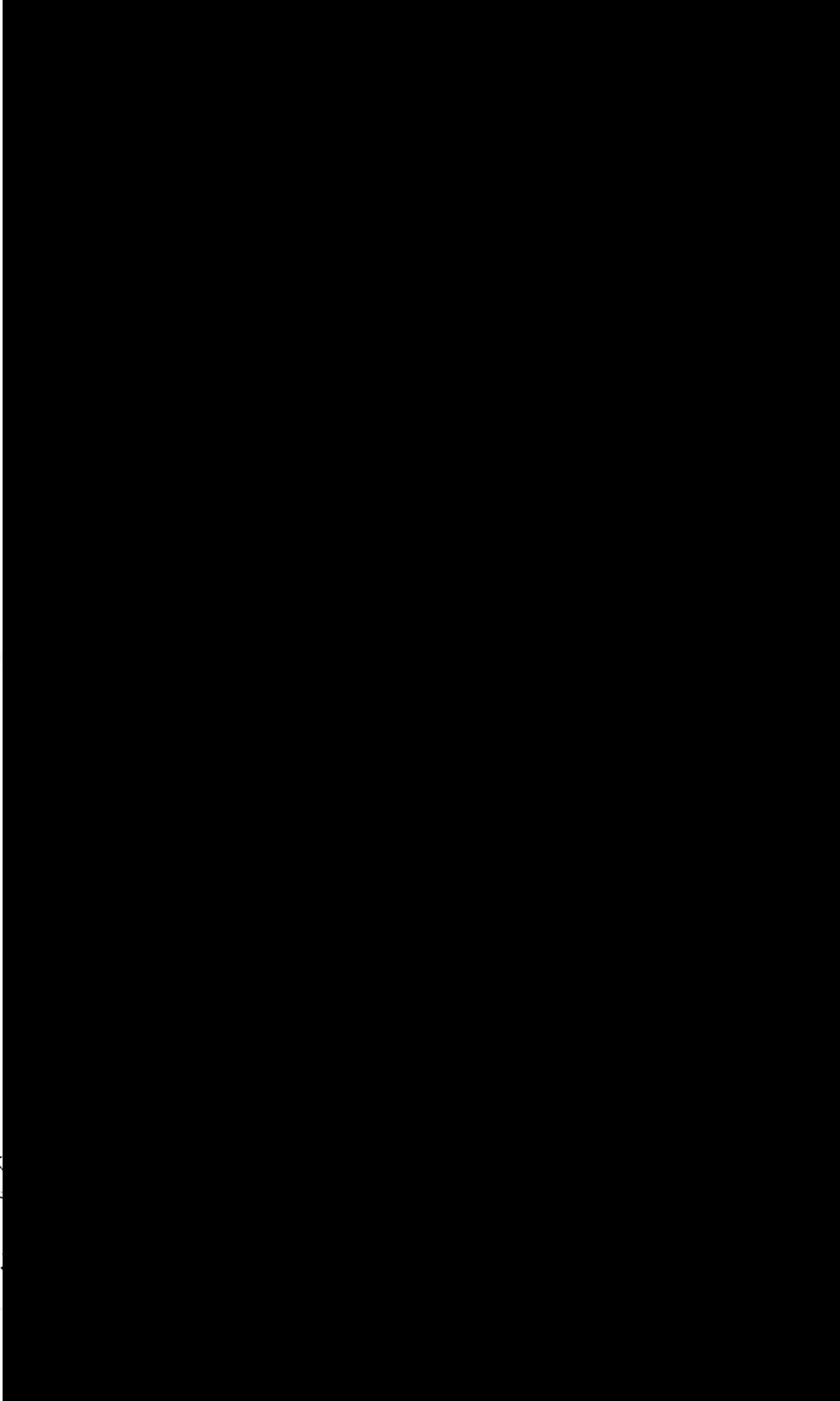
Address

phone

Email

Signature

I have a child in _ grade



Yes!

I support Montgomery's S.T.E.M Focused Charter School

I have a child in _ grade

Signature

Email

phone

Address

Name

[Redacted content]

- 16.
- 17.
- 18.

ATTACHMENT-28

Letter of Credit / Loan from a Local Bank



December 13, 2017

Charlotte Meadows
539 Paddock Lane
Montgomery, AL 36109

Re: Lead Education Foundation

Dear Charlotte:

I am pleased to tell you River Bank & Trust is willing to lend up to \$150,000.00 to Lead Education Foundation for startup funds. As you know we have a long standing banking relationship with you and many others on the board. Because of this relationship, we are grateful to assist you with this endeavor.

Please let me know if you need additional information. I look forward to working with you on this!

Sincerely,

A handwritten signature in blue ink, appearing to read "Janet R. Roberts", is written over the word "Sincerely,".

Janet R. Roberts
Senior Vice President
334.315.0774

Montgomery Office
7075 Halcyon Park Drive, Montgomery, AL 36117
P.O. Box 240938, Montgomery, AL 36124
334.396.6565 Office
334.396.6566 Fax

Prattville Office
2611 Legends Drive, Prattville, AL 36066
P.O. Box 680249, Prattville, AL 36068
334.290.1012 Office
334.290.1013 Fax

Wetumpka Office
10 Cambridge Drive, Wetumpka, AL 36093
P.O. Box 1090, Wetumpka, AL 36092
334.514.7373 Office
334.514.7374 Fax