

Parent Guide to Elementary Curriculum



Quaker Valley School District

Department of Instruction and Learning

Introduction

The Quaker Valley School District's curriculum goal is to provide all students with a rigorous educational program that sets high expectations while allowing students to develop individual talents.

This curriculum guide will provide a general overview of Quaker Valley's elementary curriculum and is arranged by grade level. Parents are encouraged to speak with their child's teacher for more detailed information about course objectives. This guide is also available at www.qvsd.org under the Academics tab. Curriculum questions that cannot be answered at the building level should be referred to the Director of Instruction and Learning.

Kindergarten..... 4
First Grade..... 18
Second Grade 34
Third Grade..... 52
Fourth Grade 73
Fifth Grade 94
Appendix..... 117
Tier 2 Vocabulary Words (K-5) 118
No Excuse Words 119

Kindergarten

Language Arts

Students should know and be able to demonstrate mastery in the following skills by the end of kindergarten:

Phonological Awareness

- Count, pronounce, blend, and segment syllables in spoken words
- Blend and segment onsets and rimes
- Identify and produce rhyming words
- Isolate phonemes - identify beginning, middle, ending sounds
- Blend two to three phonemes to make a word
- Segment two to three phonemes in a word
- Change beginning, ending, and middle sounds in words
- Manipulate sounds - substitute and delete phonemes in words

Phonics

- Identify letters that come before and after a letter in the alphabet
- Match upper and lower case letter pairs
- Identify upper case and lower case letters
- Write all upper and lowercase letters of the alphabet
- Recognize and name all upper and lowercase letters of the alphabet
- Identify consonant sounds
- Identify short and long vowel sounds
- Read common high-frequency words
- Read simple, decodable text
- Spell simple short vowel words
- Use digraphs: sh, th, ch, wh
- Identify two sounds of c and g
- Blend CVC words
- Blend CVCC, CVCe, and CVVC words
- Write simple words phonetically

Comprehension:

Concepts of print

- Identify front cover, back cover, spine, and title page of a book
- Distinguish left, right, top, and bottom
- Match spoken word to written word

Structures

- Recognize and use interrogatives
- Distinguish story from poetry
- Know the jobs of an author and illustrator
- Know the purpose of the table of contents in a book
- Sequence 3-4 events chronologically from a story
- Recognize repetition or rhyme in text
- Discern real from fantasy
- Describe relationship between illustrations and text
- Match appropriate picture to a given text
- Recognize verb tense (present/past)

Literature/Informational Text

- Retell familiar stories
- Recognize the subject of a sentence
- Identify main characters
- Identify main setting
- Determine key details of a text
- Interpret adjectives to develop an accurate understanding
- Describe connections/relationships between two characters, events, or pieces of information
- Make connections between text and the world
- Determine explicit main ideas
- Understand that printed material provides information
- Understand and use the terms “fiction” and “nonfiction”
- Determine motives of the main character
- Make simple inferences
- Draw conclusions
- Identify basic similarities and differences between two

texts on the same topic

- Compare and contrast characters and events in familiar stories
- Make connections from text to world

Writing:

Grammar

- Recognize and categorize nouns – person, place, or thing
- Use correct gender and number agreement
- Recognize action verbs
- Understand relationship between an action verb and the noun
- Orally use the conjunction “and” to combine sentences with similar ideas
- Speak and write complete sentences
- Use correct subject/verb agreement when speaking

Mechanics

- Print first and last name with proper capitalization
- Capitalize the first word of a sentence
- Capitalize the word “I”
- Use a period for end punctuation
- Use correct spacing between words
- Write legibly
- Orient writing correctly (left-right/top-bottom)
- Recognize and name all end punctuation

Composition

- Participate in shared research and writing projects
- Edit and add details to strengthen writing
- Communicate ideas through drawing and writing
- Use invented spelling
- Write three complete simple sentences while staying on topic with a prompt
- Use a combination of drawing, dictating, and writing to compose opinion, informational, and narrative pieces

Communication (Speaking and Listening)

- Follow three-step directions
- Express ideas, needs, thoughts and feelings effectively
- Use complete coherent sentences when sharing ideas and information
- Participate in group discussions
- Pose questions to gather additional information
- Respond appropriately to questions
- Understand frequent prepositions (in/out, above/below)
- Use correct verb tense for past/present (walked/walk)
- Follow agreed-upon rules for discussions
- Continue a discussion through multiple exchanges
- Orally recount familiar stories

Literary Devices

- Recognize onomatopoeia and intentional alliteration
- Interpret simple forms of figurative language

Vocabulary

- Use context clues to approximate word meaning
- Know and use 25 tier II vocabulary words
- Recognize unknown words in a text
- Recognize synonyms for common words
- Recognize antonyms for common words
- Recognize words/phrases in a story that suggest emotions or appeal to the senses
- Categorize words (i.e. farm animals, types of cereal)
- Learn definitions for common multi-meaning words (i.e. duck)

Research (ongoing) - Guided

- Distinguish between fiction and nonfiction
- Identify elements of KWL chart (prior knowledge, need for knowledge)
- Identify and use the parts of a nonfiction text (shared research

facts, labels, captions, font, fact box)

- Locate and discuss facts in nonfiction text
- Name parts of title page (source of information for bibliography)
- Identify the types of sources used to gather information (print, electronic, image)

Math

In Kindergarten, learning focuses on procedures, concepts, and applications in two critical areas:

- Representing and comparing whole numbers, initially with sets of objects.
- Describing shapes and space.

Students should know and be able to demonstrate mastery in the following skills by the end of kindergarten:

Counting, Cardinal, & Ordinal Numbers

- Count to 100 by ones and by tens
- Count forward to 100 beginning from numbers other than 1.
- 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).
- When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
- 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.
- Understand that each successive number name refers to a quantity that is one larger.
- 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.
- 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.
- Compare two numbers between 1 and 10 presented as written numerals.

Operations & Algebraic Thinking

- Represent addition and subtraction concretely (e.g., with objects, fingers, mental images, drawings, sounds, acting out situations), verbally and symbolically (with expressions or equations).
- Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- 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 $5 = 4 + 1$)
- 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.
- Fluently add and subtract within 5.

Number & Operations in Base Ten

- 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 (such as $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Measurement & Data

- Describe various measurable attributes of objects, including length, weight, and capacity. Describe several measurable attributes of a single object.
- Directly compare various measurable attributes of objects, such as length, weight, and capacity, and describe the comparisons.
- Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Geometry

- Describe objects in the environment using names of 2- and 3-dimensional shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
- Correctly name shapes regardless of their orientations or overall size.
- Identify shapes as 2-dimensional or 3-dimensional.
- Analyze and compare 2- and 3-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and

- other attributes (e.g., having sides of equal length).
- Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
 - Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”

In Kindergarten, students will work towards proficiency of the following mathematical practices:

- Make sense of problems and persevere in solving them.
 - Make sense of your problem.
 - Reflect on your thinking as you solve the problem.
 - Keep trying when your problem is hard.
 - Check whether your answer makes sense.
 - Solve problems in more than one way.
 - Compare the strategies you and others use.
- Reason abstractly and quantitatively.
 - Create mathematical representations using numbers, words, pictures, symbols, gestures, tables, graphs, and concrete objects.
 - Make sense of the representations you and others use.
 - Make connections between representations.
- Construct viable arguments and critique the reasoning of others.
 - Make mathematical conjectures and arguments
 - Make sense of others’ mathematical thinking.
- Model with mathematics.
 - Model real-world situations using graphs, drawings, tables, symbols, numbers, diagrams, and other representations.
 - Use mathematical models to solve problems and answer questions.
- Use appropriate tools strategically.
 - Choose appropriate tools.
 - Use tools effectively and make sense of your results.
- Attend to precision.
 - Explain your mathematical thinking clearly and precisely.
 - Use an appropriate level of precision for your problem.
 - Use clear labels, symbols, and mathematical language.
 - Think about accuracy and efficiency when you count, measure, and calculate.

- Look for and make use of structure.
 - Look for mathematical structures such as categories, patterns, and properties.
 - Use structures to solve problems and answer questions.
- Look for express regularity in repeated reasoning.
 - Create and justify rules, shortcuts, and generalizations.

Science

Students should know and be able to demonstrate mastery in the following skills by the end of kindergarten:

Subject: Earth Science

Content: Wood and Paper

- Observe the properties of a variety of woods and papers in a systematic way
- Discover what happens when they subject these materials to a number of tests and interactions with other materials
- Understand that wood and paper can be recycled to create new forms of paper or wood that have new properties
- Use what they know about the properties of these materials as they change wood and paper into a variety of products
- Make comparisons between different kinds of wood, different types of paper, and wood and paper
- Recognize the concept of trees as natural resources and become aware of the need to conserve and reuse natural resources

Subject: Physical Science

Content: Push Pull Go

- Explores motion and the forces that make things move
- Students build toys that move and investigate the forces that move them
- Student-constructed toys are utilized to explore systems, how parts of a system interact, and how missing parts change a system.
- Students track the path of a moving ball and measure distance traveled with nonstandard measurement
- Lessons link the invisible force of gravity to moving objects
- Understand the crosscutting concepts: patterns; cause and effect; structure and function; and systems and system models

Health

Students should know and be able to demonstrate mastery in the following skills by the end of kindergarten:

Content: Fundamentals of Good Health

- Demonstrate basic hygiene routines independently
- Discuss the role hygiene plays in keeping us healthy
- Describe the people, practices, and tools that keep us healthy
- Describe how fundamental practices keep us healthy

Content: Body Functions

- Describe function of basic body parts and organs
- Relate how healthy practices support body development and function

Content: Safe Practices

- Demonstrate and describe the importance of rules to ensure safety
- Explain how to modify behavior to assure safe practice

Content: Nutrition

- Identify how specific food keeps us healthy
- Identify the foods to include in specific food groups

Social Studies

Students should know and be able to demonstrate mastery in the following skills by the end of kindergarten:

Content (taught throughout the year):

- Character-building lessons
- Types of Families
- Community Helpers
- Symbols of American Freedom

Over the course of the year, students will be able to:

- Understand purpose of a rule
- Understand responsibilities at school

- Learn problem/resolution skills
- Identify positions of authority
- Understand equal distribution
- Distinguish wants and needs
- Identify elements of maps, globes, photographs
- Describe different types of homes
- Locate places in the school and community
- Compare and contrast customs and traditions
- Identify how environmental changes impact people
- Compare children and families of today with past
- Know where to locate information

Art

Students should know and be able to demonstrate mastery in the following skills by the end of kindergarten:

Identify the following tools, and know the expectations for appropriate and safe use:

- Use Cutting tools (Scissors) appropriately and safely
- Drawing tools (Markers, Crayons, Paint brushes)
- Adhesives (Glue sticks, White glue, Tape)
- Know that Art is used to help celebrate or help record events and occasions
- Use art skills that helps celebrate or record and event

Know that Art is used for different purposes including: (decoration, objects for use, tell a story)

- Sort, differentiate, and categorize different functions of art
- Create art for a specific purpose
- Know what makes “good” 2 and 3 dimensional art
- Talk about what makes “good” art
- Know that people have opinions about art
- Express their own opinion about art and listen to other opinions

Guidance/Personal/Social Education

Students should know and be able to demonstrate mastery in the following skills by the end of kindergarten:

- Distinguish between appropriate and inappropriate behaviors
- Understand the need for self-control and how to practice it
- Demonstrate cooperative behavior in groups
- Recognize that everyone has rights and responsibilities
- Use effective communication skills
- Learn how to make and keep friends
- Develop effective coping skills for dealing with problems
- Demonstrate when, where and how to seek help for solving problems and making decisions

Career Education

- Recognize that individuals have unique interests
- Identify current personal interests and understand that the things we like and the things we are good at may lead to a future career
- Recognize the roles of individuals at home, in the workplace and in the community are constantly changing
- Identify the range of jobs available in the community

Technology

Students will be able to:

Technology Basics

- identify and explain the functions of computer parts
- navigate the operating system, windows and applications
- use a mouse/trackpad appropriately
- create, open and save files
- use peripheral devices

Word Processing

- use keyboard to type simple words and sentences
- insert images
- format text
- print documents

Computational Thinking: Code.org Course 1 part 1

Digital Design

- use drawing and painting tools
- create a picture based on a theme

Web Browsers

- use browser buttons and tools
- navigate websites

Presentations

- create simple, multi-slide presentations
- add and edit text

Ethics and Online Safety

- use technology in an ethical manner
- demonstrate age-appropriate online safety practices

Library

Students will be able to:

Behaving as a Digital Citizen

- Identify and practice ethical and safe online behavior.
- Identify potential consequences of unethical, unsafe and inappropriate behavior.

Book Handling

- Demonstrate proper book handling skills and correct procedures for using eReader devices (e.g., how to turn device on and off, turn pages, protect screen).

Demonstrating Technology Etiquette & Safety

- With prompting and support, demonstrate proper etiquette while using and handling technology (e.g., technology basic care).
- With prompting and support, answer questions about importance of safe, legal and responsible use of technology.

Describing Key Ideas and Details

- Ask and answer questions about key details in text read aloud or presented orally.

Drawing Evidence: Using Primary & Secondary Sources

- Engage in reading activities relate to non-fiction with purpose and understanding.

Evaluating Arguments

- With support, identify why author uses certain details to support points in text.

Evaluating Diverse Media

- Describe relationships between illustrations and text.

Evaluating Sources

- Support opinion with reasons.
- With help and support, use web browser to locate content-specific websites.

Explaining Different Types of Text

- Compare and contrast differences between fiction and non-fiction.

Identifying Author and Illustrators Roles

- Define roles of author and illustrator.

Identifying Literary Elements

- Find connections between words and illustrations in book read aloud or read alone.
- Identify characters in familiar stories.
- Identify similarities and differences among characters from different stories.

Identifying Text Features

- Identify parts of book (e.g., title, author) and parts of text (e.g., beginning, end, details).

Producing and Publishing with Technology

- With guidance and support, explore information to produce and publish writing in collaboration with peers.

Recalling Information

- With help, recall information from past experience or information provided to answer question.

Research Process: Effective Inquiry

- Participate in individual or guided shared research. **Research**

Process: Accessing, Identifying and Evaluating Resource

- Will develop understanding of searching, locating, and understanding print and electronic resources to gather information from reliable sources.

Research Process: Developing Research Topic and Question(s)

- Will understand need for information
- Will understand need for different resources

Research Process: Synthesizing Information

- With guidance will develop an age appropriate use of information to create reports

Selecting Informational Texts & Literary Non-Fiction

- Engage in reading activities related to non-fiction with purpose and understanding.

Selecting Literary Fiction

- With assistance, select grade-level-appropriate literature.
- Use illustrations and familiar words to create meaning from text by questioning, reflecting, responding and evaluating.

Using Digital Media

- With help and support, identify similarities and differences between text, graphics, audio, animation and video.

Using Information Ethically

- Understand the need to use own words to avoid plagiarism

First Grade

Language Arts

Students should know and be able to demonstrate mastery in the following skills by the end of first grade:

Phonemic Awareness:

- Count, pronounce, blend, and segment syllables in spoken words
- Blend and segment onsets and rimes in single-syllable spoken words
- Recognize, isolate, change, and produce initial, final, and medial sounds
- Identify and produce rhyming words
- Blend phonemes to make words
- Segment phonemes in words
- Auditory word recall
- Recognize and produce final blends
- Categorize and classify words by sounds

Phonics and Word Recognition:

Blend and segment words with the following sounds:

- Short Vowels
- Blends: r, l, s
- Long vowel patterns and vowel teams
- Consonants: soft c, soft g
- Digraphs and diphthongs
- Use R-controlled vowels: ar, or, ore, er, ur, ir
- Use inflected endings: -s, -ing, -es, -ed, -er, -est, change y to i before adding endings
- Use possessive endings: 's
- Use contractions: 's, n't, 'll, 'd, 've, 're
- Master high-frequency words
- Phonograms: -ing, -ang, -ong, -ink, -ank
- Prefixes and suffixes: -ful, -ly, -y, un-, re-
- Read simple, decodable text with specific target sounds
- Read and write grade appropriate sight words

Comprehension:

- Distinguish fiction from non-fiction text
- Identify text structure: sequence, description, problem/solution, cause/effect, compare/contrast
- Recognize when the action is happening (past, present, future)
- Follow dialogue of speakers in text
- Use headings and table of contents to locate information
- Connect pronouns to correct character or object for sense-making
- Recognize and use onomatopoeia, intentional alliteration, similes, personification
- Identify author's purpose
- Identify genre – narrative, non-fiction, poetry, play, biography, realistic fiction, fantasy
- Identify main character(s)
- Identify main setting(s) – time and place
- Recognize how setting and characterization affect plot
- Determine explicit and common implicit motives of primary characters
- Make inferences about characters, plot, or setting
- Conclude meaning of figurative language
- Draw reasonable conclusions
- Link sequence of events that move the action of the story
- Make associations between texts
- Determine explicit main ideas and key details
- Distinguish between rudimentary fact or opinion statements in text
- Use and interpret simplistic graphics/illustrations with textual information
- Recognize elements of poetry (rhyme, repetition), types: acrostic, cinquain, diamante

Writing:

Grammar:

- Identify and distinguish between common and proper nouns
- Produce plural nouns ending with –s, -es

- Understand the noun as the subject of the sentence
- Recognize the state-of-being verbs and use correctly (am, is, are, will, was, were, have, has, had)
- Produce present and past tense action verbs ending with –ed
- Understand the relationship between a noun and the adjective
- Use “quality” adjectives (ex. shiny, furry)
- Recognize and use comparative adjectives (big, bigger)
- Use personal pronouns maintaining gender agreement
- Use correct form of a/an articles
- Understand that articles announce the noun(s) of a sentence
- Recognize and use *and*, *but*, *or* to establish relationships between ideas
- Understand the relationship between the preposition and the noun
- Recognize and use frequently occurring prepositions
- Identify sentence fragments and write complete simple sentences
- Differentiate between sentence fragments and complete sentences
- Identify full subject and full predicate
- Use correct subject/verb agreement in present tense
- Identify four types of sentences (declarative, interrogative, exclamatory, command)
- Identify and produce singular possessive nouns and possessive pronouns
- Identify and use irregular verbs

Mechanics:

- Capitalize the first word in a sentence
- Capitalize the word “I”
- Capitalize proper nouns (days, months, seasons, names)
- Capitalize text titles and words in an address
- Identify and use correct end punctuation
- Accurately use periods most of the time
- Write legibly
- Use commas in a series and in a date

- Spell words correctly

Composition:

- Participate in the writing process: pre-write, draft, edit, revise, publish
- Write a paragraph with a topic sentence, details, and a closing that stays on topic and makes sense
- Write: Personal narrative, descriptive, explanatory, procedural, opinion, poetry, response to literature, and journal entries

Vocabulary:

- Recognize grade appropriate sight words
- Know and apply tier 2 vocabulary words
- Use context clues to determine meaning of unknown words
- Recognize and determine the meaning of simple figurative language
- Identify multiple-meaning words in text
- Categorize/classify words
- Recognize synonyms and antonyms
- Identify common homophones and use them correctly in writing

Communication (Speaking/Listening)-

- Participate in collaborative discussions
- Pose questions to gather additional information
- Use complete sentences to express coherent thoughts
- Orally recount an experience, speaking audibly and in complete sentences

Math

In First Grade, learning focuses on procedures, concepts, and applications in four critical areas:

- Understanding addition, subtraction, and strategies within 20.
- Understanding whole number relationships and place value, including grouping by tens and ones.
- Understanding linear measurement as iterating length units.

- Composing and decomposing geometric shapes and reasoning about the attributes of shapes.

Students should know and be able to demonstrate mastery in the following skills by the end of first grade:

Operations & Algebraic Thinking

- 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.
- 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.
- Apply properties of operations as strategies to add and subtract. 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.)
- Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.
- Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- 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 $6 + 6 + 1 = 12 + 1 = 13$).
- Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.
- Determine the unknown whole number in an addition or

subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.

Number & Operations in Base Ten

- 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.
- Understand that the two digits of a two-digit number represent amounts of tens and ones.
- 10 can be thought of as a bundle of ten ones—called a “ten.”
- The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- 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).
- Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.
- 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.
- Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
- 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.

Measurement & Data

- Order three objects by length; compare the lengths of two objects indirectly by using a third object.
- 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.
- Tell and write time in hours and half-hours using analog and digital clocks.
- 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.

Geometry

- 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.
- 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.
- 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.

In First Grade, students will work towards proficiency of the following mathematical practices:

- Make sense of problems and persevere in solving them.

- Make sense of your problem.
- Reflect on your thinking as you solve the problem.
- Keep trying when your problem is hard.
- Check whether your answer makes sense.
- Solve problems in more than one way.
- Compare the strategies you and others use.
- Reason abstractly and quantitatively.
 - Create mathematical representations using numbers, words, pictures, symbols, gestures, tables, graphs, and concrete objects.
 - Make sense of the representations you and others use.
 - Make connections between representations.
- Construct viable arguments and critique the reasoning of others.
 - Make mathematical conjectures and arguments.
 - Make sense of others' mathematical thinking.
- Model with mathematics.
 - Model real-world situations using graphs, drawings, tables, symbols, numbers, diagrams, and other representations.
 - Use mathematical models to solve problems and answer questions.
- Use appropriate tools strategically.
 - Choose appropriate tools.
 - Use tools effectively and make sense of your results.
- Attend to precision.
 - Explain your mathematical thinking clearly and precisely.
 - Use an appropriate level of precision for your problem.
 - Use clear labels, symbols, and mathematical language.
 - Think about accuracy and efficiency when you count, measure, and calculate.
- Look for and make use of structure.
 - Look for mathematical structures such as categories, patterns, and properties.
 - Use structures to solve problems and answer questions.
- Look for express regularity in repeated reasoning.
 - Create and justify rules, shortcuts, and generalizations.

Science

Students should know and be able to demonstrate mastery in the

following skills by the end of first grade:

Subject: Earth and Space Science

Content: Air and Weather

- Experience air as a material that takes up space and can be compressed into a smaller space.
- Observe the force of air pressure pushing on objects and materials.
- Observe and describe changes that occur in weather over time.
- Become familiar with instruments used by meteorologists to monitor air and weather conditions.
- Compare monthly and seasonal weather conditions using bar graphs.
- Observe the location of the Sun and the Moon in the sky over a day and the change in the appearance of the Moon over a month.
- Organize and communicate observations through drawing and writing.
- Acquire vocabulary associated with properties of air and weather conditions.

Subject: Life Science

Content: Organisms

- Discuss the basic needs of organisms that are met by their environments
- Observe plants and animals in natural and model settings
- Begin to understand the interdependence between organisms and their environment
- Observe and discuss the life cycle of organisms

Subject: Physical Science

Content: Sound and Light

- Develop an understanding of how to observe and manipulate sound and light.
- Explore these dimensions of the natural world using simple tools and musical instruments
- Understand that sound comes from vibrating objects; explore how to change sound volume and pitch, and develop simple models for how sound travels from a source to a receiver.
- Explore how to use sound and light devices to communicate information and compare the ways that animals use their senses (ears and eyes) to gather information about their environment

- Engage in science and engineering practices by collecting data and designing tools to solve problems and answer questions
- Understand the crosscutting concepts: patterns; cause and effect; and systems and system models

Social Studies

Students should know and be able to demonstrate mastery in the following skills by the end of first grade:

Content (taught throughout the year):

- Families, Homes, Working Together, Celebrations, Native Americans, Holidays around the world, Black History, Globe and map skills, Land forms, Rules/Citizenship

Over the course of the year, students will be able to:

- Understand chronological thinking and distinguish between past, present, and future time
- Identify contributions of individuals and groups to United States history
- Identify and describe primary historic sites important in United States history
- Identify ethnic and racial relations
- Understand early exploration – Christopher Columbus
- Identify how conflict and cooperation among social groups and organizations affected world history
- Identify elements on a map, globe, graph, diagram, and photograph
- Identify the characteristics of places and regions as well as human features
- Identify and compare means of payment
- Identify who supplies a product and who demands a product
- Explain how self-interest influences choice
- Identify different occupations
- Explain the purposes of rules, laws, and being respectful
- Identify authority figures

Music

Students should know and be able to demonstrate mastery in the following skills by the end of first grade:

- Read rhythmic notation using q ryQ
- Create rhythmic patterns using q ryQ
- Sing mi sol la patterns using hand signs
- Identify and perform melody
- Assign pitches (mi sol la) to rhythmic patterns to create a melody
- Differentiate between and perform beat and rhythm
- Recognize and perform AB form
- Improvise 2- and 4-beat rhythmic and melodic patterns
- Match pitch
- Mallet technique for barred instruments
- Snap
- Label and perform quarter notes, eighth notes, and quarter rests
- Notate rhythmic patterns from dictation (using quarter notes, eighth notes, and quarter rests)
- Notate melodic patterns (mi sol la) on a two-line staff
- Sing, play, and move to music from various places and times
- Reflect on performance of others
- Share opinions about music
- Listen to opinions of others

Physical Education

Students should know and be able to demonstrate mastery in the following skills by the end of first grade:

- Soccer, Team Handball, Educational Gymnastics, Floor Hockey, Basketball, Volleyball, Badminton, Baseball, Flag Games, Frisbee, Lacrosse, Track & Field/Olympics, President's Fitness Challenge, Jump Rope/Hula Hoop, Cooperative

Games, Climbing Wall, Scooters/Parachute,
Balance/Coordination/Agility

Over the course of the year, students will be able to:

- Work with and compete against others in a variety of movement experiences, which emphasize teamwork, cooperation, and fair play
- Learn how to learn new skills.
- Understand the rules for each modified game played within each unit
- Know how to use strategy to be successful in modified games.
- Use manipulative skills such as kicking, throwing, catching, dribbling, striking to achieve success within a specific unit
- Use motor skills such as running, jumping, leaping, hopping, sliding, galloping, skipping to achieve success within a specific unit
- Use balance, coordination and agility exercises to achieve success within a specific unit
- Develop a respect for individual differences
- Display appropriate sportsmanship
- Understand and apply primary principles of physical fitness
- Understand the benefits associated with regular physical activity

Art

Students should know and be able to demonstrate mastery in the following skills by the end of first grade:

- Content: Painting, Drawing, Weaving, Sculpture (clay), Mixed-media, Art History
- Know that Art requires practice
- Engage in repeated practice and explain the benefits of repeated practice
- Know that there are differences between traditional and non-traditional materials
- Identifying, categorize and use traditional and non-traditional materials
- Know that Artists use elements and principles in combination to

- convey feelings and emotions in a work of art
- Students make artistic choices to convey specific emotions
- Know that Artists have depicted aspects of everyday life (Working, School, Play, Celebrations, Rituals, Traditions, Customs)
- Identify the aspects of everyday life as subject matter in works of art
- Develop vocabulary to describe quality in a work of art
- Use vocabulary to describe quality in a work of art
- Know that People have opinions about art
- Express their own opinion about art and listen to other opinions

Guidance/Personal/Social Education

Students should know and be able to demonstrate mastery in the following skills by the end of first grade:

- Distinguish between appropriate and inappropriate behaviors
- Recognize personal boundaries, rights, and privacy needs
- Understand the need for self-control and how to practice it
- Demonstrate cooperative behavior in groups
- Recognize that everyone has rights and responsibilities
- Use effective communication skills
- Learn how to make and keep friends
- Understand consequences of decisions and choices
- Develop effective coping skills for dealing with problems
- Demonstrate when, where and how to seek help for solving problems and making decisions

Career Education

- Recognize that individuals have unique interests
- Identify current personal interests and understand that the things we like and the things we are good at may lead to a future career
- Recognize the roles of individuals at home, in the workplace and in the community are constantly changing
- Identify the range of jobs available in the community

- Learn about the variety of traditional and non-traditional occupations
- Develop an awareness of personal abilities, skills, interests, and motivations
- Learn how to interact and work cooperatively in teams
- Develop a positive attitude toward work and learning
- Understand the importance of responsibility, dependability, etc. in the workplace

Technology

Technology Basics

- navigate the operating system, windows and applications
- create, open, save and retrieve files
- use peripheral devices

Computational Thinking:

- Code.org Course 1 part 2
- Basic computer-based programming intro—Scratch cards part 1

Word Processing

- format text
- insert images
- use spelling and grammar check
- print documents

Presentation

- create presentations with multiple slides
- add and format text
- import and insert images into slides

Digital Design

- use drawing and painting tool
- create a document (painting, drawing, or book)
- create concept map

Web Browsers

- use browser buttons and tools
- navigate websites
- view multiple pages and tabs
- use a search engine

Ethics & Online Safety

- use technology in an ethical manner
- demonstrate age-appropriate online safety practices

Library

Students will be able to:

Behaving as a Digital Citizen

- Demonstrate proper care of technology and equipment.
- Discuss safe and ethical online behavior.

Demonstrating Technology Etiquette & Safety

- With prompting and support, demonstrate proper etiquette while using and handling technology (e.g., technology basic care).
- With prompting and support, answer questions about importance of safe, legal and responsible use of technology.

Describing Key Ideas and Details

- Confirm understanding of text read aloud or presented orally by asking and answering questions about key details.

Drawing Evidence: Using Primary & Secondary Sources

- Independently locate and select literary non-fiction on grade level.

Evaluating Arguments

- Identify details author uses to support points in text.

Evaluating Diverse Media

- Describe key ideas through illustrations and text.

Evaluating Sources

- Support opinion with reasons.
- With help and support, use web browser to locate content-specific websites.

Explaining Different Types of Text

- Explain differences between fiction and non-fiction texts.

Identifying Literary Elements

- Identify characters, setting and events that occur in story and describe based on illustrations and details.
- Identify characters in stories read aloud or read alone.
- Identify similarities and differences among characters from different stories.

Identifying Text Features

- Identify text features to locate key facts or information in text.

Presentations

- Add drawing or other visual display to presentation to clarify ideas, thoughts and feelings.

Producing and Publishing with Technology

- With guidance and support, produce and publish writing in collaboration with peers.

Recalling Information

- Recall information from past experience or information provided to answer question and, with help, use this information to write answer to question.

Research Process: Effective Inquiry

- Participate in individual or guided shared research. **Research**

Process: Accessing, Identifying and Evaluating Resource

- Will develop understanding of searching, locating, and understanding print and electronic resources to gather information from reliable sources.

Research Process: Developing Research Topic and Question(s)

- With guidance, will understand need for information to answer questions about chosen topic.
- Will understand that there are print and electronic resources

Research Process: Synthesizing Information

- With guidance will develop an age appropriate use of information to create reports

Selecting Informational Texts & Literary Non-Fiction

- Independently locate and select literary non-fiction on grade level.

Selecting Literary Fiction

- Independently select grade-level-appropriate literature in variety of genres.
- With guidance apply strategies to create meaning from literature.
- Read literature presented in any format to gain meaning by questioning, reflecting, responding and evaluating.

Using Digital Media

- With help and support, identify similarities and differences

between text, graphics, audio, animation and video.

Using Information Ethically

- Understand the need to use own words to avoid plagiarism

Second Grade

Language Arts

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

Phonemic Awareness:

- Isolate and change beginning, medial and final sounds
- Use digraphs and blends
- Rhyme
- Auditory word recall
- Categorize and classify words based on sounds
- Manipulate sounds in words

Phonics and Word Recognition:

Decode words with the following sounds:

- Short vowels, soft and hard consonant sounds (c/g), schwa
- Initial and final blends
- Digraphs and diphthongs
- Open and closed syllables
- Long vowel patterns and vowel teams
- R-controlled vowels
- Read common prefixes and suffixes
- Read possessive nouns, compound words, and contractions
- Read and write common high frequency words

Spelling:

- Short vowels, long vowels (VCe), blends (r, l, s), final blends, double consonants, /ck/
- Digraphs (see above)
- Base word plus –ed, -ing, -s, -es
- Contractions
- ai, ay, ee, ea, o, oa, ow, au, aw, al, ew, ue

- Compound words and y as e/i
- Long i: -i, -igh, -ie, -y
- Two sounds of /oo/, ou, ow
- R-controlled vowels
- Base words with –er, -est
- Homophones
- Suffixes (-ly, -ful, etc.)
- Prefixes (re-, un-, etc.)

Fluency

- Read at grade appropriate benchmarks with accuracy, fluency and prosody

Comprehension –

- Link sequence of events that move the action of the story
- Make inferences about character, setting, and plot
- Clarify key details or character motives of the story through questions
- Distinguish fiction from non-fiction
- Identify author's purpose
- Identify main character(s), main setting
- Explain who is telling the story (point of view)
- Identify text structure: sequence, description, cause/effect, compare/contrast, problem/solution
- Identify graphic features (heading, photographs, bold words, captions, glossary, table of contents, index, graphics)
- Determine central message/theme/moral of a story
- Summarize using only essential story elements
- Draw reasonable conclusions
- Identify main idea and key details
- Identify genre – narrative, non-fiction, poetry, play, biography, realistic fiction, fantasy
- Recognize elements of poetry (rhyme, repetition)
- Literary devices: simile, alliteration, onomatopoeia, personification, idioms, hyperbole, metaphor, flashback
- Understand characterization developed through words and actions
- Identify fact and opinion
- Make associations between texts (similar character types, plots,

motives or lessons learned, information presented)

Vocabulary –

- Recognize and produce synonyms and antonyms
- Recognize homonyms, homophones, homographs
- Categorize and classify words
- Use context clues to determine meaning
- Determine how prefixes/suffixes change meaning or tense
- Understand multiple meaning words
- Know and use tier 2 vocabulary words
- Use various resources to locate definitions when necessary
- Recognize simple literary devices and understand meaning of figurative language

Writing

Grammar –

- Produce singular and possessive nouns
- Distinguish between singular and plural nouns
- Produce plural nouns ending with –ies
- Identify and capitalize proper nouns
- Produce common irregular nouns
- Use collective nouns correctly
- Recognize which noun is the subject of the sentence
- Recognize state-of-being verbs and use correctly: first grade list AND be, being, been, do, does, did, can
- Produce present and past tense action verbs ending with –ied
- Produce common, irregular verb forms
- Use adjective placement in correct relationship to the noun (ex. “a small red bag” rather than “a red small bag”)
- Use “quantity” adjectives (ex. enough, few)
- Recognize and use comparative and superlative adjectives (ex. bigger, biggest)
- Recognize and use adverbs of manner (ex. slowly)
- Form and use comparative adverbs (ex. more slowly)
- Discern when to use a personal or object pronoun
- Use reflexive and indefinite pronouns correctly
- Use possessive pronouns correctly

- Discern between definite and indefinite articles
- Recognize and use first grade list of conjunctions and add *for, nor*
- Use transitional chains to sequence order of ideas (ex. first, second)
- Use prepositions of place correctly (ex. between)
- Recognize sentence fragments and write complete simple sentences
- Identify full subject and full predicate
- Use correct subject/verb agreement in present and past tenses

Mechanics –

- Identify and write four types of sentences
- Capitalize salutations and closings in letters
- Capitalize proper nouns, titles, streets, cities, and states
- Use periods and question marks accurately most of the time
- Accurately use apostrophe in singular possessives
- Accurately use commas after sequence transitions, in a letter, in date, city, and state, in a series, after yes/no at the beginning of a sentence, and after a coordinating conjunction
- Capitalize text titles
- Identify parts of a letter
- Indent a paragraph
- Write legibly with appropriate spacing
- Use correct capitalization and end punctuation in sentences
- Spell words correctly

Composition –

- Write: Letter, creative fiction, descriptive, procedural, compare/contrast, research/explanatory, opinion, response to literature, and in journals

Communication (Speaking/Listening)-

- Participate in collaborative discussions
- Pose questions that clarify comprehension or deepen understanding of a topic

- Use complete sentences to express coherent thoughts
- Orally recount an experience, speaking audibly and in complete sentences

Math

In Second Grade, learning focuses on procedures, concepts, and applications in four critical areas:

- Understanding of base-10 notation.
- Building fluency with addition and subtraction.
- Using standard units of measure.
- Describing and analyzing shapes.

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

Operations & Algebraic Thinking

- 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.
- Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
- 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.
- 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.

Number & Operations in Base Ten

- 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 that 100 can be thought of as a bundle of ten tens — called a “hundred.”
- Understand that 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).
- Count within 1000; skip-count by 5s, 10s, and 100s.
- Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

- Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- Add up to four two-digit numbers using strategies based on place value and properties of operations.
- 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.
- Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
- Explain why addition and subtraction strategies work, using place value and the properties of operations.

Measurement & Data

- Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- 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.
- Estimate lengths using units of inches, feet, centimeters, and meters.
- Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
- 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.
- 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.
- Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?
- 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.
- 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.

Geometry

- Recognize and draw shapes having specified attributes, such as a given number

of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

- Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- 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, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

In Second Grade, students will work towards proficiency of the following mathematical practices:

- Make sense of problems and persevere in solving them.
 - Make sense of your problem.
 - Reflect on your thinking as you solve the problem.
 - Keep trying when your problem is hard.
 - Check whether your answer makes sense.
 - Solve problems in more than one way.
 - Compare the strategies you and others use.
- Reason abstractly and quantitatively.
 - Create mathematical representations using numbers, words, pictures, symbols, gestures, tables, graphs, and concrete objects.
 - Make sense of the representations you and others use.
 - Make connections between representations.
- Construct viable arguments and critique the reasoning of others.
 - Make mathematical conjectures and arguments.
 - Make sense of others' mathematical thinking.
- Model with mathematics.
 - Model real-world situations using graphs, drawings, tables, symbols, numbers, diagrams, and other representations.
 - Use mathematical models to solve problems and answer questions.
- Use appropriate tools strategically.
 - Choose appropriate tools.
 - Use tools effectively and make sense of your results.
- Attend to precision.
 - Explain your mathematical thinking clearly and precisely.
 - Use an appropriate level of precision for your problem.
 - Use clear labels, symbols, and mathematical language.
 - Think about accuracy and efficiency when you count, measure, and calculate.
- Look for and make use of structure.
 - Look for mathematical structures such as categories, patterns, and properties.
 - Use structures to solve problems and answer questions.
- Look for express regularity in repeated reasoning.
 - Create and justify rules, shortcuts, and generalizations.

Science and Health

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

Subject: Life Science

Content: Insects

- Observe that insects have unique structures and behaviors
- Develop an understanding that insects are all related to each other, yet exhibit variations and complex life cycles
- Discuss the basic needs of organisms that are met by their environments such as food, water, air and waste removal
- Observe insects in natural and model settings
- Begin to understand the interdependence between organisms and their environment
- Observe and discuss the life cycle of organisms

Subject: Earth Science

Content: Pebbles, Sand and Silt

- Observe the properties of rocks of various sizes
- Study the components of soil and the results of weathering and erosion
- Locate natural sources of water
- Determine how to represent the shapes and kinds of land and bodies of water on Earth
- Understand the important role that earth materials have as natural resources
- Collect and interpret data to answer science questions
- Develop models to communicate interactions and processes
- Define problems to understand solutions
- Gain experiences to develop the crosscutting concepts of patterns; cause and effect; scale, proportion and quantity; energy and matter; and stability and change

Subject: Physical Science**Content: Changes**

- Discuss how familiar objects change
- Compare rates of change
- Observe that different mixtures of materials may change their properties by chemical or physical processes
- Understand that materials may react with each other and change to form new substances
- Understand that some substances may be changed from one state to another by heating and cooling
- Test properties of substances and design a plan to explore a particular change

Subject: Health Content:**Dental Health**

- Describe healthy tooth care
- Describe different types of teeth

Subject: Health**Content: Mental and Emotional Health**

- Recognize and resolve conflict situations using “I messages”
- Describe bullying and the appropriate responses to it using the “HA HA SO” methods

Subject: Health**Content: Diet and Exercise**

- Categorize food by type (breads/grains, protein/dairy, fruits/vegetables)
- Describe nutrients generally found in different food types (vegetables-vitamins)
- Describe importance of exercise in daily lives

Social Studies

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

Content (taught throughout the year):

- National and patriotic symbols/landmarks
- Map skills and landforms
- Our Families Now and Then
- The World of Work
- We are Citizens
- Our Country's Past
- Living in Our World
- People and Celebrations

Over the course of the year, students will be able to:

- Understand the purpose of a map
- Identify key parts of a map
- Identify all continents and major oceans
- Identify and differentiate between types of major landforms
- Compare and contrast different countries and cultures
- Understand that communities are part of cities, which are part of states, which are parts of countries, which make up the continents that make up the world
- Understand the basic history of our country's beginning
- Understand the role of important figures in shaping our world

Music

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

- Read rhythmic notation using h H
- Create rhythmic patterns using h H
- Sing do re mi sol la patterns using hand signs
- Assign pitches (do re mi sol la) to rhythmic patterns to create a melody
- Label A, B, and C sections
- Label and demonstrate introduction and coda
- Perform and differentiate between piano and forte
- Recognize difference between solo and ensemble
- Classify families and put instruments into families

- Identify string instruments
- Perform on unpitched percussion instruments with correct technique
- Perform on pitched percussion instruments with correct technique
- Label and perform half notes and half rests
- Notate rhythmic patterns from dictation (using half notes and half rests)
- Notate melodic patterns (do re mi sol la) on a three-line staff
- Identify and notate bar lines, double bar lines, and measures
- Perform and identify characteristics of patriotic songs, songs from play parties, and work songs
- Describe the quality of a performance
- Share opinions about music using music vocabulary
- Listen to opinions of others and acknowledge opinions that are different

Physical Education

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

- Soccer, Team Handball, Educational Gymnastics, Floor Hockey, Basketball, Volleyball, Badminton, Baseball, Flag Games, Frisbee, Lacrosse, Track & Field/Olympics, President's Fitness Challenge, Jump Rope/Hula Hoop, Cooperative Games, Climbing Wall, Scooters/Parachute, Balance/Coordination/Agility

Over the course of the year, students will be able to:

- Work with and compete against others in a variety of movement experiences, which emphasize teamwork, cooperation, and fair play
- Learn how to learn new skills
- Understand the rules for each modified game played within each unit
- Know how to use strategy to be successful in modified games
- Use manipulative skills such as kicking, throwing, catching, dribbling, striking to achieve a level of success within a specific unit

- Use motor skills such as running, jumping, leaping, hopping, sliding, galloping, skipping to achieve a level of success within a specific unit
- Use balance, coordination and agility exercises to achieve success within a specific unit
- Develop a respect for individual differences
- Display appropriate sportsmanship
- Understand and apply primary principles of physical fitness
- Understand the benefits associated with regular physical activity

Art

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

- Content: Painting, Drawing, Sculpture (clay), Mixed-media, Papermaking, Art History
- Know that artists work hard to make their work better by thinking about it and working to make it better.
- Re-work their own artwork
- Think about their own artwork compared to peers.
- Know that art can be made about their own experiences and can speculate about how others' experiences could inspire their art
- Create a composition that reflects their own experiences.
- De-code a work of art and hypothesize about the inspiration.
- Know that artists record the present
- Make art that communicates an idea about a contemporary event
- De-code a piece of artwork to hypothesize the artist's opinions about a contemporary event
- Know that art reflects the artist's culture
- De-code a piece of artwork to hypothesize about the artist's culture and/or traditions or customs
- Know that there is an appropriate vocabulary to discuss a work of art
- Use appropriate vocabulary to discuss a work of art
- Know that everyone is entitled to his or her own opinion
- Respect other opinions, even if they are different than your own

- Present opinions in a respectful way

Guidance/Personal/Social Education

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

- Develop positive attitudes toward self as a unique and worthy person
- Identify and express feelings
- Distinguish between appropriate and inappropriate behaviors
- Recognize personal boundaries, rights, and privacy needs
- Understand the need for self-control and how to practice it
- Demonstrate cooperative behavior in groups
- Recognize that everyone has rights and responsibilities
- Respect alternate points of view
- Recognize, accept, respect and appreciate individual differences
- Use effective communication skills
- Learn how to make and keep friends
- Develop effective coping skills for dealing with problems
- Know how to apply conflict resolution skills

Career Education

- Recognize that individuals have unique interests
- Identify current personal interests and understand that the things we like and the things we are good at may lead to a future career
- Recognize the roles of individuals at home, in the workplace and in the community are constantly changing
- Identify the range of jobs available in the community
- Learn about the variety of traditional and non-traditional occupations
- Develop an awareness of personal abilities, skills, interests, and motivations
- Learn how to interact and work cooperatively in teams
- Develop a positive attitude toward work and learning
- Understand the importance of responsibility, dependability, etc. in the workplace

Technology

Students will be able to:

Technology Basics

- navigate the operating system, windows and applications
- create, open, save, retrieve, and organize files
- use peripheral devices

Word Processing

- format text
- copy, cut and paste text
- insert and modify images
- use spelling and grammar check
- print documents

Presentations

- create presentations with multiple slides
- add and format text
- add media to slides
- modify slide backgrounds
- add transitions between slides
- create audio recordings

Spreadsheets

- navigate cells
- enter, copy and fill data into cells
- format cells
- create charts or graphs from data
- use Autosum function

Digital Design

- use drawing and painting tools
- create a document (painting, drawing, book, brochure, or flyer)
- organize information using a concept map

Web Browsers

- accurately type URLs independently
- use browser buttons and menus
- navigate websites
- view multiple pages and tabs
- use search engines

- refine searches to narrow results

Ethics & Online Safety

- use technology in an ethical manner
- demonstrate age-appropriate online safety practices
- identify copyrighted material

Keyboarding

- use proper posture for typing
- locate home row position

Library

Students will be able to:

Behaving as a Digital Citizen

- Demonstrate proper care of technology and equipment.
- Discuss safe and ethical online behavior.

Demonstrating Technology Etiquette & Safety

- With prompting and support, demonstrate proper etiquette while using and handling technology (e.g., technology basic care).
- With prompting and support, answer questions about importance of safe, legal and responsible use of technology.

Describing Key Ideas and Details

- Describe key ideas from text read aloud or presented orally or in another media format.

Drawing Evidence: Using Primary & Secondary Sources

- Independently locate and select literary non-fiction and information texts on grade level.
- With support, use library catalog to locate non-fiction and informational texts.

Evaluating Arguments

- Describe text that supports author's points.

Evaluating Diverse Media

- Explain how graphic representations contribute to and clarify meaning of text.

Evaluating Sources

- Support opinion with reasons.
- With help and support, use web browser to locate content-specific websites.

Identifying Literary Elements

- Identify characters and settings in story (either in text or digital form) and understand their impact on story by using information from illustrations and words in text.
- Explain plot in story (either in text or digital form) by using information from illustrations and words in text.

Identifying Story Elements

- Identify similarities and differences between two or more similar stories written by different authors or that come from different cultures.

Identifying Text Features

- Use various text features and search tools to locate key facts or information in text efficiently in print and digital sources.

Presentations

- Add drawing or other visual display to presentation to clarify ideas, thoughts and feelings.

Producing and Publishing with Technology

- With guidance and support, produce and publish writing in collaboration with peers.

Recalling Information

- Recall information from past experience or information provided to answer question and use this information to write answer to

Research Process: Effective Inquiry

- Participate in individual or guided shared research. **Research**

Process: Accessing, Identifying and Evaluating Resource

- Will develop understanding of searching, locating, and understanding print and electronic resources to gather information from reliable sources.

Research Process: Developing Research Topic and Question(s)

- With guidance, given a resource, will choose topic for research and understand resources available (print/electronic)
- Will gather information to answer pre-set questions

Research Process: Synthesizing Information

- With guidance will develop an age appropriate use of information to create reports

Selecting Informational Texts & Literary Non-Fiction

- Independently locate and select literary non-fiction and information texts on grade level.

- With support, use library catalog to locate non-fiction and informational texts.
- Independently use library catalog to locate non-fiction and informational texts.

Selecting Literary Fiction

- Independently select grade-level-appropriate literary fiction in a variety of genres.
- Develop independent strategies to create meaning from literary fiction.
- Read literary fiction presented in any format to gain meaning by questioning, reflecting, responding and evaluating.
- Independently select grade-level-appropriate literature in variety of genres.
- With guidance apply strategies to create meaning from literature.
- Read literature presented in any format to gain meaning by questioning, reflecting, responding and evaluating.

Using Digital Media

- With help and support, identify similarities and differences between text, graphics, audio, animation and video.

Using Information Ethically

- Understand the need to use own words to avoid plagiarism

Third Grade

Language Arts

Students should know and be able to demonstrate mastery in the following skills by the end of third grade:

Phonemic Awareness

- Isolate and change beginning blends, medial sounds
- Correctly use word endings (-ed, -er, -le)

Phonics and Word Recognition:

Decode words with the following sounds:

- Long vowel, digraph, and diphthong patterns
- Closed and open syllables
- Common homophones
- Prefixes and suffixes
- Read grade appropriate sight words

Word Study/Spelling

- Three letter clusters (scr-, spr-, str-, thr-)
- Short vowels, schwa
- Long vowels: CVCe, -ai, -ay, -ee, -ea, -oa, -ow, -i, -ie, -igh
- Sounds of y
- Silent letter combinations
- Vowel patterns: -ui, -ue, -ew, -oo, -ow, -ou, -au, -aw, -al, -oi, -oy
- R-controlled vowels: -ar, -or, -ore, -oar, -er, -ir, -ur, -air, -ear, -are
- Contractions with n't, 'd, 've
- Hard and soft "g" and "c",
- -ch (/ch/, /k/), -tch, k, ck, qu
- Compound words
- Word endings: -ed, -ing, -s, -es, -er, -le
- Prefixes and suffixes: il-, in-, im-, ir-, dis-, un-, re-, pre-, post-, de-, non-, -ful, -ly, -able, -er, -or, -less, -ness, -ment, -hood, -ship
- Double consonants (bot/tle)
- -ough, -augh
- Nonnegotiable Spelling List - a lot, again, because, does, favorite, have, our, said, says, their, they, until, were

Fluency

- Read at grade level appropriate benchmarks with accuracy, fluency and prosody

Comprehension

- Describe character, setting, events/plot in a story based on specific details
- Draw logical conclusions from explicit and implicit information in a text
- Make inferences using textual support regarding character, setting, and plot
- Describe characters in a story and explain how their actions contribute to the sequence of events.
- Compare and contrast characters and setting within a text to determine motivation
- Determine the influence of setting on characterization and plot
- Determine cause and effect relationships in the development of concepts, historical events, or to drive the action of a story
- Determine and provide characteristics of a given genre
- Identify the author's purpose of a selection
- Interpret parts of text: phrase/sentence/paragraph/chapter as it relates to the entire text
- Identify point of view (1st or 3rd person)
- Describe the relationship between a series of events in a story using language that pertains to time, sequence, and cause/effect
- Analyze and evaluate graphics and illustrations
- Recognize common themes in literature
- Recognize ordinate setting/s and understand its influence
- Discern between relevant and irrelevant information
- Compare and contrast the themes, settings, and plots of stories written by the same author.
- Compare and contrast the most important points and key details presented in two texts on the same topic
- Determine the main idea(s) of a text; recount the key details and explain how they support the main idea
- Discern between facts and opinions within a piece of text to

develop an informed understanding

- Determine message, theme, or mood of a piece of poetry
- 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
- Distinguish their own perspective from that of the narrator or those of the characters
- Describe the logical connection between particular sentences and paragraphs in a text
- Recognize text structure: description, sequence, compare/contrast, cause/effect, or problem/solution
- Recognize how word choice influences/impacts message
- Examine literary devices: simile, metaphor, hyperbole, personification, alliteration, onomatopoeia, idiom, imagery, symbolism, flashback, foreshadowing, repetition

Vocabulary

- Use context clues to determine word meaning
- Use structure of compound words to determine meaning
- Identify synonyms and antonyms with a direct association to target word
- Identify base word in various word structures
- Interpret and use affixes
- Know and use tier II vocabulary words
- Use of resources for definition and associations (i.e. dictionary, thesaurus - both hard back and electronic)
- Categorize words by type or concept
- Interpret common idiomatic language using context
- Recognize and differentiate meaning between common homophones
- Distinguish degrees of word meaning and relationships through analogy
- Interpret common Greek/Latin roots from meaning
- Use structure of compound words to determine meaning

Writing

Grammar

- Use abstract nouns correctly (ex. imagination)

- Produce plural possessive nouns
- Identify subject and object pronouns
- Use and punctuate appositives correctly to rename the noun
- Produce nouns by adding common noun suffixes (-ment, -hood, -ness, -ship)
- Recognize compound subjects and compound predicates in a sentence
- Recognize the state-of-being verbs and use correctly: first and second grade lists AND could, would, should, shall, may, might, must
- Produce past, present, and future tense action verbs
- Produce common, irregular verb forms in multiple tenses
- Use adjective placement in correct relationship to the noun
- Use interrogative adjectives (what, which, whose)
- Limit adjectives in a sequence to three
- Recognize and use adverbs of time correctly (ex. next)
- Recognize and use interrogative pronouns (what/whatever, which/whichever)
- Use distributive pronouns correctly (either/or, neither/nor)
- Use possessive pronouns correctly
- Discern between definite and indefinite articles
- Recognize and use conjunctions for, and, nor, but, or, yet, so
- Recognize and use correlative conjunction pairs (either/or, neither/nor)
- Recognize common subordinating conjunctions and understand how they link ideas
- Use transitional chains to sequence order of ideas
- Use prepositions of time correctly (ex. next, before, after)
- Write complete simple, compound, and complex sentence types
- Recognize phrases and clauses in sentences
- Use appositives in sentences correctly
- Identify simple subject and simple predicate
- Use collective nouns correctly with verb agreement (singular)

Mechanics

- Capitalize abbreviations and honorifics (ex. Dr.)

- Capitalize all appropriate words in proper nouns
- Capitalize appropriate words in titles
- Accurately use end punctuation
- Accurately use apostrophe in plural possessives
- Accurately use hyphens in numbers
- Accurately use a comma after sequence transitions, in simple dialogue, after “yes” or “no” in the beginning of a sentence, in simple appositives, and before or after a person’s name in the beginning or end of a sentence

Composition

Write: Summaries, research/explanatory, procedural, opinion/argument, compare/contrast, biography, advertisement, note-taking, and in journals

Communication (Speaking/Listening)-

- Participate in collaborative discussions
- Pose questions that enhance the dialogue
- Use complete sentences to express coherent thoughts
- Give a minimum of 2 oral presentations per year at teacher’s discretion

Research (ongoing) – Guided/Self-guided

- Identify a research topic
- Distinguish and use print and electronic reference materials
- Recognize source validity
- Identify questions for chosen research topic
- Summarize important points and key details presented in informational text to answer research questions
- Organize information
- Practice simplified MLA bibliography (title, author, copyright)
- Create basic research project

Math

In Third Grade, learning focuses on procedures, concepts, and applications in four critical areas:

- Understanding of multiplication and division and strategies within 100.
- Understanding of fractions, especially unit fractions.
- Understanding of the structure of rectangular arrays and of area.
- Describing and analyzing two-dimensional shapes.

Students should know and be able to demonstrate mastery in the following skills by the end of third grade:

Operations & Algebraic Thinking

- Interpret multiplication in terms of equal groups. For example, describe a context in which a total number of objects can be expressed as 5×7 .
- Interpret division in terms of equal shares or equal groups. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.
- Use multiplication and division to solve number stories. Model number stories involving multiplication and division.
- Determine the unknown in multiplication and division equations. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = _ \div 3$, $6 \times 6 = ?$.
- Apply properties of operations to multiply or divide. 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.)
- Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.
- 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.
- 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.

- Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For 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 & Operations in Base Ten

- Use place value understanding to round whole numbers to the nearest 10 or 100.
- 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.
- 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.

Number & Operations - Fractions and Decimals

- 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 of size $\frac{1}{b}$.
- Understand a fraction as a number on the number line; represent fractions on a number line diagram. 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.
- Understand a fraction as a number on the number line; represent fractions on a number line diagram. Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a length $\frac{1}{b}$ 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.
- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
- Explain equivalence of fractions in special cases, and compare

fractions by reasoning about their size. Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.

- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point of a number line diagram.
- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 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.

Measurement & Data

- 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.
- Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). 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.
- 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. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
- 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.

- Recognize area as an attribute of plane figures and understand concepts of area measurement. 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.
- Recognize area as an attribute of plane figures and understand concepts of area measurement. 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.
- Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
- Relate area to the operations of multiplication and addition. 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.
- Relate area to the operations of multiplication and addition. 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.
- Relate area to the operations of multiplication and addition. 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.
- Relate area to the operations of multiplication and addition. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
- 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.

Geometry

- 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.

- Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For 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.

In Third Grade, students will work towards proficiency of the following mathematical practices:

- Make sense of problems and persevere in solving them.
 - 30. Make sense of your problem.
 - 31. Reflect on your thinking as you solve the problem.
 - 32. Keep trying when your problem is hard.
 - 33. Check whether your answer makes sense.
 - 34. Solve problems in more than one way.
 - 35. Compare the strategies you and others use.
- Reason abstractly and quantitatively.
 - 30. Create mathematical representations using numbers, words, pictures, symbols, gestures, tables, graphs, and concrete objects.
 - 31. Make sense of the representations you and others use.
 - 32. Make connections between representations.
- Construct viable arguments and critique the reasoning of others.
 - 30. Make mathematical conjectures and arguments.
 - 31. Make sense of others' mathematical thinking.
- Model with mathematics.
 - 30. Model real-world situations using graphs, drawings, tables, symbols, numbers, diagrams, and other representations.
 - 31. Use mathematical models to solve problems and answer questions.
- Use appropriate tools strategically.
 - 30. Choose appropriate tools.
 - 31. Use tools effectively and make sense of your results.
- Attend to precision.
 - 30. Explain your mathematical thinking clearly and precisely.
 - 31. Use an appropriate level of precision for your problem.

- 32. Use clear labels, symbols, and mathematical language.
- 33. Think about accuracy and efficiency when you count, measure, and calculate.
- Look for and make use of structure.
 - 30. Look for mathematical structures such as categories, patterns, and properties.
 - 31. Use structures to solve problems and answer questions.
- Look for express regularity in repeated reasoning.
 - 30. Create and justify rules, shortcuts, and generalizations.

Science and Health

Students should know and be able to demonstrate mastery in the following skills by the end of third grade:

Subject: Biological Science

Content: Plant Growth and Development

- Identify parts of a bean seed
- Discuss the purpose of planning and thinning
- Create bar graphs to keep records of growth of plants
- Measure and record plant height
- Make predictions about plant growth
- Apply science and math skills to analyze data and interpret graphs
- Understand that plants are part of an organized system that regulates their life cycles and their interactions with the environment
- Understand that plants can grow and develop only in environment in which their needs are met
- Describe the life cycle of plants

Subject: Earth Space Science

Content: How do Weather and Climate Affect Our Lives

- Ask questions about the structure of weather instruments in order to determine the function of the instrument
- Carry out an investigation by measuring air temperature, wind speed and direction, precipitation, and cloud cover to determine if weather can vary over short distances
- Build an anemometer and analyze its function in order to adjust the structure and improve function
- Represent data on high and low temperature and precipitation over several years in a graph
- Combine information from a map and a reading to describe how

- climates differ in different places in the world
- Combine information from cards and a map to describe the different climates of Northern and Southern Hemisphere cities
 - Define the problem of hazardous weather causing damage to homes, trees, power lines and roads.
 - Use evidence such as location and type of damage to make an argument about the cause of weather-related problems.
 - Carry out an investigation to determine how different roof materials are affected by water.
 - Design and build a roof to withstand the effects of climate and heavy precipitation
 - Use evidence from an investigation to make an argument about the merit of different roof designs to withstand a climate with heavy precipitation
 - Analyze and interpret patterns in climate data in order to make a claim about which month would be best to host a kids' soccer tournament in a particular city
 - Communicate recommendations based on patterns in climate data for the best month to host a kids' soccer tournament in a particular city
 - Gain experiences to develop the crosscutting concepts of structure and function; scale, proportion, and quantity; patterns; stability and change; and cause and effect

Subject: Physical Science

Content: Chemical Tests

- Describe the properties of unknown materials
- Use observation skills to describe common objects
- Examine solubility of solids
- Summarize the effects of heat on solids
- Compare test data with verified data from chemists to identify unknown solids
- Design, conduct, and analyze results of tests to identify two solids in a mixture
- Test common liquids and classify them as acids, bases, and neutrals
- Order materials into groups or systems that display common chemical and physical behaviors
- Understand that the properties of materials may be identified by the use of physical and chemical tests

Subject: Health

Content: Mental and Emotional Health

- Name and identify the 3 types of health: Physical, Mental and Emotional, and Family and Social
- Recognize ways to make responsible decisions
- Recognize and resolve conflict situations using “I messages”
- Describe bullying and the appropriate responses to it using the “HA HA SO” methods
- Identify both helpful and harmful stress and some of its effects
- Identify and have knowledge of the “Food Plate”/Pyramid

Subject: Health**Content: Cardiovascular System**

- Describe the function and workings of the cardiovascular system
- Identify the main parts of the cardiovascular system
- Define key vocabulary terms (blood, red blood cells, white blood cells, oxygen, veins, arteries, heart)

Subject: Health**Content: Communicable Diseases**

- Identify ways to prevent the spread of communicable diseases (good hygiene practices, especially hand-washing)
- Identify our body’s defenses against pathogens (the skin, white blood cells, antibodies)
- List common communicable diseases

Subject: Health**Content: Drugs**

- Differentiate between medicine and illegal drugs; between prescription drugs and over-the-counter drugs; between drug misuse and drug abuse
- Describe rules for taking medicine safely
- Explain drug abuse’s unhealthy effects on people

Subject: Health**Content: Safety & Injury Prevention**

- Be able to use and identify reasons for using the 911 calling system
- Identify common first aid items and their use
- Identify safety rules that will prevent the chance of fire, electrical shock, poisoning, and abduction
- Identify safe practices in transportation (bicycle use, pedestrian, seatbelt use, school bus)

- Identify outdoor safety rules that will prevent injuries

Social Studies

Students should know and be able to demonstrate mastery in the following skills by the end of third grade:

Content: Geography

- Read and interpret information from maps, globes, graphs, diagrams, and timelines
- Identify different types of communities and develop an awareness of their own individual communities within the world
- Identify major landforms (i.e. coasts, river, peninsula, ocean, etc.)
- Identify the seven continents, four oceans, hemispheres, equator, and the United States on a globe or world map

Content: Government

- Identify the principles of government including liberty/freedom
- Identify key ideas about the government and interpret the Preamble of the United States Constitution
- Identify the roles of the three branches of government
- Explain the purposes of rules, laws, and consequences
- Explain rules and laws for the classroom, school, and community

Content: History

- Describe the voyage of the Mayflower and the purpose of the Pilgrim's settlement
- Describe the daily life and culture of the Wampanoag Indians and compare/contrast to Pilgrim's culture
- Describe the influence of African Americans on the evolution of music (i.e. spirituals, rag time, and jazz)

Content: Economics

- Describe the purpose of a bank
- Identify different zones in city planning and examples of each zone

Music

Students should know and be able to demonstrate mastery in the following skills by the end of third grade:

- Read rhythmic notation using h. wH. W
- Create rhythmic patterns using h. wH. W
- Sing sol, la, do re mi sol la do' patterns using hand signs
- Assign pitches (sol, la, do re mi sol la do') to rhythmic patterns to create a melody
- Label and perform harmony
- Identify ABACA form
- Use the notes of the pentatonic scale to perform, improvise, and compose
- Describe the qualities of major and minor
- Use do as the tonic for major and la as tonic for minor
- Label and perform crescendo and decrescendo
- Identify and perform a note with a fermata
- Differentiate between echo and question & answer
- Perform call and response
- Read and perform music with repeat signs
- Recognize difference between solo and ensemble, duet and trio
- Identify characteristics of woodwind and brass instruments
- Recognize and label members of the woodwind and brass families
- Play the soprano recorder using correct technique
- Read and perform B, A, and G on recorder
- Label and perform whole notes, dotted half notes, and whole rests
- Notate rhythmic patterns from dictation (using whole notes, dotted half notes, and whole rests)
- Read and notate melodic patterns (sol, la, do re mi sol la do') on a five-line staff
- Identify and label the letter names of the treble clef staff
- Identify the purpose of a time signature
- Match the time signature to the number of beats in a measure
- Read and perform tied notes
- Identify, demonstrate, and create within duple and triple meter
- Compare and contrast characteristics of pieces from various cultural groups
- Describe the quality of a performance using formal elements
- Articulate personal opinions of musical works and support those opinions with evidence

Physical Education

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

- Soccer, Team Handball, Educational Gymnastics, Floor Hockey, Basketball, Volleyball, Badminton, Baseball, Flag Games, Frisbee, Lacrosse, Track & Field/Olympics, President's Fitness Challenge, Jump Rope/Hula Hoop, Cooperative Games, Climbing Wall, Scooters/Parachute, Balance/Coordination/Agility

Over the course of the year, students will be able to:

- Work with and compete against others in a variety of movement experiences, which emphasize teamwork, cooperation, and fair play
- Apply learned skills in game situations
- Apply strategy to be successful in game play
- Understand and apply the rules, scoring during game play
- Use manipulative skills such as kicking, throwing, catching, dribbling, striking to achieve a level of success within a specific unit
- Use motor skills such as running, jumping, leaping, hopping, sliding, galloping, skipping to achieve a level of success within a specific unit
- Use balance, coordination and agility exercises to achieve success within a specific unit
- Display respect for individual differences
- Display appropriate sportsmanship
- Understand and apply primary principles of physical fitness
- Understand the benefits associated with regular physical activity

Art

Students should know and be able to demonstrate mastery in the following skills by the end of second grade:

- Content: Painting, Drawing, Sculpture (clay), Mixed-media, Art History
- Know when making art, it is useful to seek others' opinions to get

feedback on their own work.

- Engage in formal and informal discussions that benefit their artwork
 - Listen and be receptive to feedback from others
 - Know that artists make use of traditional and non-traditional materials to make art
 - Create artwork using traditional and non-traditional materials
 - Make intentional choices about the use of traditional and non-traditional materials
 - Know art can be used to tell a story
 - Use artwork to tell a story
 - Know that the tools, materials, traditions and customs of a culture can affect the artwork
 - Analyze the artistic traditions evident in a variety of cultural artifacts
- Know that it is important to look closely at a work of art to be able to judge the quality of the work
- Use Visual Literacy: observe a work of art to form a response.
 - Know that Closely observing a work of art can help the observer to make personal meaning
 - Develop observation skills, including the ability to describe what you see

Guidance/Personal/Social Education

Students should know and be able to demonstrate mastery in the following skills by the end of third grade:

- Develop positive attitudes toward self as a unique and worthy person
- Identify values, attitudes, and beliefs
- Identify and express feelings
- Distinguish between appropriate and inappropriate behaviors
- Recognize personal boundaries, rights, and privacy needs
- Understand the need for self-control and how to practice it
- Demonstrate cooperative behavior in groups
- Recognize that everyone has rights and responsibilities
- Respect alternate points of view

- Recognize, accept, respect and appreciate individual differences
- Use effective communication skills
- Learn how to make and keep friends
- Identify alternative solutions to a problem
- Develop effective coping skills for dealing with problems
- Demonstrate when, where and how to seek help for solving problems and making decisions
- Differentiate between situations requiring peer support and situations requiring adult professional help
- Learn how to cope with peer pressure
- Learn techniques for managing stress and conflict

Career Education

- Students will acquire the skills to investigate the world of work in relation to knowledge of self to make informed career decisions
- Students will employ strategies to achieve future career goals with success and satisfaction
- Students will understand the relationship between personal qualities, education, training and the world of work
- Identify current personal interests
- Learn how to set goals
- Understand the importance of planning
- Explain how workers in their careers use what is learned in the classroom
- Identify attitudes and work habits that contribute to success at home and school
- Explore how people prepare for careers
- Explain why education and training plans are important to careers
- Explain how workers in their careers use what is learned in the classroom

Technology

Students will be able to:

Technology Basics

- create, open, save, retrieve, organize and back-up

- use external storage devices (file server, flash drive)
- use peripheral devices

Computational Thinking:

- Code.org course 2 part 2
- Programming—Scratch

Intro to Google Drive

- Docs
- Presentation
- Sheets

Word Processing

- format text
- copy, cut and paste text
- create bullet & number lists
- insert and modify tables
- insert and modify images
- use spelling and grammar check
- print documents

Presentations

- create presentations with multiple slides
- add and format text
- create slide backgrounds
- add media to slides (clipart, photos, sound effects)
- animate slide objects
- add transitions
- organize and edit photos
- add titles and credits
- save presentation in another format
- create engaging audio recordings

Spreadsheets

- navigate cells
- enter, copy, and fill data into cells
- format cells
- create charts or graphs from data
- enter formulas and functions

Web Browsers

- use browser buttons and tools

- view multiple pages with tabs
- navigate websites
- bookmark favorite sites
- use different types of search engines
- refine searches to narrow results

Podcasting

- create a podcast
- add pictures, sound effects, and music
- adjust volume level on audio tracks
- export podcast for sharing

Ethics & Online Safety

- use technology in an ethical manner
- demonstrate age-appropriate online safety practices
- identify copyrighted material

Keyboarding

- use proper posture for typing
- apply correct keyboarding techniques using home row position
- increase accuracy and words-per-minute speed

Library

Students will be able to:

Behaving as a Digital Citizen

- Identify and practice ethical and safe online behavior. Identify potential consequences of unethical, unsafe and inappropriate behavior.

Demonstrating Technology Etiquette & Safety

- Apply proper etiquette when using technology (e.g., cyber safety).
- Explain importance of safe, legal and responsible use of technology.

Determining Author's Point of View (Perspective)

- Identify information about author to explain point of view.

Drawing Evidence from Text

- Identify wide range of texts that tell a story to make a point, express personal opinion or provide enjoyable experience as examples of grade-level-appropriate literary texts.

- Identify reference sources and information texts that are appropriate to grade level.

Drawing Evidence: Using Primary & Secondary Sources

- Independently locate and select literary non-fiction and information text on grade level.
- Independently use library catalog to locate non-fiction and informational texts.

Evaluating Arguments

- Identify text that supports author's points.

Evaluating Diverse Media

- Explain how information from various sources contributes to understanding text.

Evaluating Sources

- Understand need to support credibility of sources.
- Discuss criteria for evaluating a website: credibility, relevance, bias, accuracy and currency.

Evaluating, Analyzing & Integrating Information

- Research and understand information from different media
- Explain how information can be used to explain topic

Identifying Main Ideas

- Identify main ideas and supporting details of text read aloud or presented orally or in other media formats.

Identifying Text Features

- Use text features and search tools to locate and interpret information in print and digital sources.

Presentations

- Collaborated instruction: Library provides selection strategies and grade level appropriate materials while classroom teacher does technical recording
 1. Record stories or poems aloud to demonstrate reading fluently and at an understandable pace.
 2. Record stories or poems in engaging manner.
- Add drawing or other visual display to recording to emphasize or enhance facts or details.

Producing and Publishing with Technology

- With some guidance and support, produce and publish product and interact and collaborate with others.

Research Process: Note-taking Strategies and Presenting Research Findings

- Recall information from past experiences.
- Gather information from sources, including both print and digital.
- Use information to answer questions.
- Write answer(s) to question(s) in note-taking format.
- Organize information by sorting it into provided categories.

Research Process: Effective Inquiry

- Participate in individual or guided shared research.
- Conduct short as well as in-depth research projects.

Research Process: Note-taking Strategies

- Draw evidence from text to answer an information need using age-appropriate note-taking skills.

Research Process: Evaluating Sources (See Also Critical Thinkers Big Idea)

- Use literacy strategies to determine readability of source (e.g., five-finger rule for vocabulary). Make conclusions about information in sources.

Research Process: Accessing, Identifying and Evaluating Resource

- Will develop understanding of searching, locating, and understanding print and electronic resources to gather information from reliable sources.

Research Process: Developing Research Topic and Question(s)

- Choose topic to research
- With guidance, develop questions to be answered about topic

Research Process: Synthesizing Information

- Will create age appropriate use of information, note-taking skills, and bibliographic citation formats to create reports

Selecting Informational Texts & Literary Non-Fiction

- Independently, locate and select literary non-fiction and informational text on grade level.
- Independently use library catalog to locate non-fiction and informational texts.

Selecting Literary Fiction

- Independently select grade-level-appropriate literary fiction in a variety of genres.
- Apply strategies to create meaning from literary fiction.

- Read self-selected literary fiction presented in any format to gain meaning by questioning, reflecting, responding and evaluating.

Using Digital Media

- Select and utilize an appropriate digital media to enhance a content-specific product.
- Use digital media legally and ethically, practicing Educational Fair Use.

Using Information Ethically

- Understand the need to use own words to avoid plagiarism

Fourth Grade

Language Arts

Students should know and be able to demonstrate mastery in the following skills by the end of fourth grade:

Word Study

- Decoding: Open, closed, and vowel team syllables, discern long and short vowel patterns, R-controlled syllables, digraphs, stressed and unstressed syllables, compound words, syllabic division of base words and affixes, 3-syllable words, how spelling changes sound (electricu – electricity)

Fluency

- Read on-level text including poetry with purpose, understanding, prosody (reading with expression and phrasing)
- Self-correct appropriately

Comprehension

- Evaluate textual evidence
- Describe in-depth: character/setting/event in story/drama based on specific details
- Determine influence of setting on plot
- Interpret inferential information using explicit textual support regarding literary elements such as plot, character, setting
- Develop paraphrasing skill to summarize the action of the text
- Use graphics to interpret or develop information from text
- Identify author's purpose, both explicit and implied, and

evaluate effectiveness

- Identify and determine influence of flashback and point of view (1st or 3rd person)
- Determine cause and effect relationships
- Determine the difference between a topic of a story and the themes in a text
- Compare/contrast story elements within and among texts
- Compare and contrast multiple narrators' perspectives and development of information
- Discern fact from opinion
- Draw conclusions and make appropriate generalizations based on information presented
- Summarize non-fiction and literary text using key details
- Discern essential from non-essential information in a text
- Describe the overall structure of an informational text: Sequence, compare/contrast, cause/effect, problem/solution
- Interpret imagery developed through words and phrases
- Sequence events and the importance of each event in a text
- Determine main idea from explicit and implicit information
- Determine historical influences on text
- Compare and contrast a firsthand or secondhand account of the same event or topic
- Determine theme in a story, drama, or poem
- Monitor and clarify while reading
- Make logical inferences while reading
- Identify protagonist and antagonist
- Interpret literary devices *in text*: hyperbole, personification, alliteration, onomatopoeia, personification, simile, metaphor, flashback, foreshadowing, imagery, symbolism, repetition, dialect
- Discern between simile and metaphor

Vocabulary

- Identify synonyms/antonyms to extend word meaning
- Discriminate between homonyms
- Understand meaning of prefixes and suffixes (ab-, ad-, mis-, mal-, inter-, ex-, e-, in-, -ous, -ible, -tion, -sion, -ment, -ism, -ity, -ist)
- Use context clues

- Use resources for definition and associations (i.e.: dictionary/thesaurus both hard back and electronic)
- Introduction of Greek and Latin roots
- Solve analogies using antonyms
- Understand multiple meaning words
- Tier 2 vocabulary
- Understand denotation and connotation of words

Grammar

- Produce singular and plural possessive nouns
- Use and punctuate appositives correctly
- Produce nouns by adding suffixes such as –ist, -ity, -ism
- Identify direct objects
- Discern between subject and object pronouns
- Use collective nouns with proper verb agreement
- Identify and use gerunds (-ing verb form acting as a noun - ex. traveling)
- Distinguish between verb forms of –ing and gerunds
- Recite, identify and use all state-of-being verbs
- Differentiate between helping and linking verbs
- Form and use progressive verb tenses
- Use adjective placement in correct relationship to the noun
- Use demonstrative adjectives (this, that, these)
- Identify and use adjective phrases
- Limit adjectives in a sequence to three
- Recognize and use adverbs of frequency (ex. often)
- Use relative adverbs correctly (where, when, why)
- Use relative pronouns correctly (who, whose, whom, which)
- Use demonstrative pronouns correctly (this/that, these/those)
- Maintain pronoun antecedent agreement
- Write simple, compound and complex sentence types
- Maintain coordinating conjunctions *for, and, nor, but, or, yet, so*
- Use common subordinating conjunctions to establish appropriate relationships among ideas
- Recognize correlative conjunction pairs with correct verb agreement
- Differentiate between independent and dependent clauses
- Use phrases and clauses with appropriate punctuation in sentences
- Use prepositions of direction correctly (ex. toward)

- Form and use prepositional phrases
- Use appositives in sentences correctly
- Use active voice
- Use transitional chains to sequence ideas with accurate comma use
- Choose words and phrases and punctuation for effect

Mechanics

- Capitalize abbreviations and honorifics (ex. Dr.)
- Capitalize appropriate words within dialogue
- Capitalize significant events (ex. Civil War)
- Accurately use apostrophes in possessives
- Accurately use hyphens
- Accurately use parentheses to provide a definition for a word
- Accurately punctuate sentences in dialogue
- Accurately use commas after transitions, within dialogue, before a coordinating conjunction, and to set off a question
- Spell words correctly

Composition

Write: Summaries, research/explanatory, opinion/argument, editorial, compare/contrast, problem/solution, text dependent analysis, note-taking, response to literature, poetry, and in journals

Communication (Speaking/Listening)

- Participate in collaborative discussions
- Pose questions that enhance the dialogue
- Use complete sentences to express coherent thoughts
- Give a minimum of 2 oral presentations per year at teacher's discretion

Research (ongoing)– Guided/Self-guided

- Identify need for research
- Formulate research topic, develop questions to design research strategy
- Utilize print and electronic resources
- Identify a primary source
- Compare and contrast primary to secondary source
- Summarize important points and key details presented in

informational text to answer research questions using note-taking format

- Organize information
- Practice simplified MLA bibliography (title, author, copyright, publisher, publication)
- Design basic research project

Math

In Fourth Grade, learning focuses on procedures, concepts, and applications in three critical areas:

- Understanding and fluency with multi-digit multiplication, and understanding of dividing to find quotients with multi-digit dividends.
- Understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers.
- Understanding that geometric figures can be analyzed and classified based on their properties.

Students should know and be able to demonstrate mastery in the following skills by the end of fourth grade:

Operations & Algebraic Thinking

- 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.
- 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.
- 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.
- 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.

- 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. For 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 & Operations in Base Ten

- 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. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.
- 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.
- Use place value understanding to round multi-digit whole numbers to any place.
- Fluently add and subtract multi-digit whole numbers using the standard algorithm.
- 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.
- 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.

Number & Operations - Fractions and Decimals

- Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ 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.
- 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.

- Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$.
- Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- 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. Examples: $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$; $\frac{3}{8} = \frac{1}{8} + \frac{2}{8}$; $2 \frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$.
- 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.
- 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.
- Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
- Understand a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$. For 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 $\frac{5}{4} = 5 \times (\frac{1}{4})$.
- 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. For 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, $n \times (\frac{a}{b}) = (\frac{n \times a}{b})$.)
- 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. For 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 what two whole numbers does your answer lie?
- 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. For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.
- Use decimal notation for fractions with denominators 10 or 100. For example, rewrite $\frac{62}{100}$ as 0.62; describe a length as 0.62 meters;

locate 0.62 on a number line diagram.

- 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.

Measurement & Data

- Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; 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. For example, 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), . . .
- 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.
- Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For 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.
- 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. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.
- Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
 - 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.

- An angle that turns through n one-degree angles is said to have an angle measure of n degrees.
- Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
- Recognize angle measure as additive. When an angle is decomposed into non overlapping 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 and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Geometry

- Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
- 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.
- 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.

In Fourth Grade, students will work towards proficiency of the following mathematical practices:

- Make sense of problems and persevere in solving them.
 30. Make sense of your problem.
 31. Reflect on your thinking as you solve the problem.
 32. Keep trying when your problem is hard.
 33. Check whether your answer makes sense.
 34. Solve problems in more than one way.
 35. Compare the strategies you and others use.
- Reason abstractly and quantitatively.
 30. Create mathematical representations using numbers, words, pictures, symbols, gestures, tables, graphs, and concrete objects.
 31. Make sense of the representations you and others use.
 32. Make connections between representations.

- Construct viable arguments and critique the reasoning of others.
 - 30. Make mathematical conjectures and arguments.
 - 31. Make sense of others' mathematical thinking.
- Model with mathematics.
 - 30. Model real-world situations using graphs, drawings, tables, symbols, numbers, diagrams, and other representations.
 - 31. Use mathematical models to solve problems and answer questions.
- Use appropriate tools strategically.
 - 30. Choose appropriate tools.
 - 31. Use tools effectively and make sense of your results.
- Attend to precision.
 - 30. Explain your mathematical thinking clearly and precisely.
 - 31. Use an appropriate level of precision for your problem.
 - 32. Use clear labels, symbols, and mathematical language.
 - 33. Think about accuracy and efficiency when you count, measure, and calculate.
- Look for and make use of structure.
 - 30. Look for mathematical structures such as categories, patterns, and properties.
 - 31. Use structures to solve problems and answer questions.
- Look for express regularity in repeated reasoning.
 - 30. Create and justify rules, shortcuts, and generalizations.

Science and Health

Students should know and be able to demonstrate mastery in the following skills by the end of fourth grade:

Subject: Life Science

Content: Animal Studies

- Understand that an organism's behavior and physical structure are part of a system that includes interrelationships with its environment
- Describe animal behaviors and structures that help them adapt to their habitats
- Understand that when a habitat changes, some animals survive; others die or move to new locations
- Explain that a habitat is where an animal finds food, water, shelter,

and space—the things it needs to grow and reproduce, and that each animal has specific needs

- Create a habitat for fiddler crab, dwarf frog, and millipede
- Design, perform, and discuss a controlled test to examine how the frog, crab, and millipede adapt to a change in one element of their habitats
- Compare and contrast structures and behaviors of animals in relation to their habitat

Subject: Physical Science

Content: Energy

- Investigate electricity and magnetism as related effects
- Engage in engineering design while learning about the application of electromagnetism in everyday life
- Conduct controlled experiments by incrementally changing variables to determine how to make an electromagnet stronger
- Investigate how the amount of energy transfer change when balls of different masses hit a stationary object
- Explore energy transfer through waves (repeating patterns of motion) that results in sound and motion
- Gather information about how energy and fuels are derived from natural resources and how that affects the environment
- Explore alternative sources of energy that use renewal resources
- Interpret data from graphs to build explanations from evidence and make predictions of future events
- Develop models to represent how energy moves from place to place in electric circuits and in waves
- Gain experiences that will contribute to the crosscutting concepts of patterns; cause and effect; systems and system models; and energy and matter

Subject: Earth Space Science

Content: Land and Water

- Understand that earth materials have unique properties and are parts of living and nonliving systems
- Understand that the landscape is a result of the long-term integration of a variety of natural processes that act on the surface of the earth
- Model the effects of rain and erosion on stream tables
- Understand how humans can affect these processes Analyze four soil components and describe their properties
- Define deposition and erosion
- Identify common parts of a stream

- Compare the effects of fast and slow flowing water
- Design and construct dams and test their effects
- Design landscapes in a model home site and predict how runoff will affect these landscapes

Subject: Health

Content: Muscular and Skeletal Systems

- Describe the function and workings of the skeletal and muscular system
- Identify the main parts of the muscular and skeletal systems
- Identify the way the skeletal and muscular systems work together to enable people to move
- Define key vocabulary terms (bone, tendon, ligament, cartilage, joint, skeletal muscle, smooth muscle and cardiac muscle)
- Distinguish between voluntary and involuntary muscle

Subject: Health

Content: Respiratory System

- Explain why oxygen is important to the body
- Describe how respiration provides the body with oxygen and removes carbon dioxide waste
- List the steps of the breathing process and the path of air through our respiration process
- Different problems and ailments, including those caused by smoking, that can affect the respiratory system
- Understand the dangers of tobacco, secondhand smoke
- Discuss immediate and long-term dangers of smokeless tobacco
- Understand peer pressure and advertising

Social Studies

Students should know and be able to demonstrate mastery in the following skills by the end of fourth grade:

Content: Map and Globe Skills

- Read a map and explain its purpose – Elevation, Historical, Land Use and Resource, Roads, Cultural, Time Zone, Population
- Define features of a map
- Identify and understand the five themes of geography

- Read a timeline, line graph, bar graph, and flow chart
- Use latitude and longitude
- Compare and contrast maps
- Understand and use scale
- Identify and describe landforms
- Identify states and their capitals

Content: Citizenship Skills

- Describe people, places, and events and the connections between them
- Present solutions to problems by analyzing conflict and evaluating persistent issues
- Differentiate fact from opinion
- Analyze cause and effect relationships
- Make economic choices
- Differentiate between and among various options

Content: Characteristics of Regions of the United States

- Examine primary sources in order to gain information
- Differentiate fact from opinion
- Analyze cause and effect relationships
- Make generalizations based on specific criteria
- Compare and contrast the characteristics of regions
- Interpret information in visuals
- Describe the location, geography, climate, and economy of regions
- Draw conclusions from visuals and text
- Compare and contrast information
- Identify important resources and their significance to a particular region
- Determine and analyze similarities and differences
- Arrange events in chronological sequence
- Compare past and present time periods
- Make inferences about a region based on facts stated in text
- Describe people, places, and events and the connections between them
- **Content: United States Today**
- Summarize key content presented in a variety of sources
- Analyze and determine different points of view

- Analyze a flow chart to understand a process
- Identify the scope and function of government
- Make inferences in order to draw conclusions

Music

Students should know and be able to demonstrate mastery in the following skills by the end of fourth grade:

- Read rhythmic notation using dffg rTy
- Create rhythmic patterns using dffg rTy
- Sing patterns using notes of the diatonic scale with hand signs
- Assign pitches of the diatonic scale to rhythmic patterns to create a melody
- Read and perform syncopated rhythm patterns
- Identify beginning and ending of phrases
- Sing and play phrases of various lengths
- Identify and perform pick up notes
- Label and perform mezzo forte and mezzo piano
- Define and perform rounds
- Read and play C', D', E, and D on recorder
- Identify characteristics of percussion instruments
- Recognize and label members of the percussion family
- Read and perform 2/4, 3/4, 4/4, and 6/8 meter
- Make decisions about (when creating music): Instrument choice, Beat or no beat, Mood, Pitch choice, Rhythm
- Perform music that serves various purposes
- Identify purposes of music
- Use evidence (formal elements and/or personal response) to judge the quality of works
- Identify when themes/musical ideas occur
- Describe the characteristics of the themes/ideas (e.g. timbre, tonality, harmony) that affect listener perception

Content: Band 4

- Produce a good tone
- Demonstrate proper hand position
- Demonstrate expected rehearsal etiquette

- Practice outside of school time
- Show evidence of practice (practice log)
- Perform Bb concert scale, one octave

Content: Strings 4

- Care for instrument properly
- Produce a good tone
- Demonstrate proper posture specific to instrument
- Demonstrate proper bow technique, including down bow and up bow
- Demonstrate expected rehearsal etiquette
- Practice outside of school time
- Show evidence of practice (practice log)
- Perform D scale, one octave

Physical Education

Students should know and be able to demonstrate mastery in the following skills by the end of fourth grade:

- Soccer, Team Handball, Educational Gymnastics, Floor Hockey, Basketball, Volleyball, Badminton, Baseball, Flag Games, Frisbee, Lacrosse, Track & Field/Olympics, President's Fitness Challenge, Jump Rope/Hula Hoop, Cooperative Games, Climbing Wall, Scooters/Parachute, Balance/Coordination/Agility

Over the course of the year, students will be able to:

- Work with and compete against others in a variety of movement experiences, which emphasize teamwork, cooperation, and fair play
- Apply learned skills in game situations
- Apply strategy to be successful in game play
- Understand and apply the rules, scoring during game play
- Use manipulative skills such as kicking, throwing, catching, dribbling, striking to achieve a level of success within a specific unit
- Use motor skills such as running, jumping, leaping, hopping, sliding, galloping, skipping to achieve a level of success within a specific unit
- Use balance, coordination and agility exercises to achieve success within a specific unit

- Display respect for individual differences
- Display appropriate sportsmanship
- Understand and apply primary principles of physical fitness
- Understand the benefits associated with regular physical activity

Art

Students should know and be able to demonstrate mastery in the following skills by the end of fourth grade:

- Content: Painting, Drawing, Weaving, Sculpture, Mixed-media, Art History
- Know that artists record ideas and observations as a basis for future work
- Use a sketchbook to record ideas and observations
- Use sketchbooks as a basis for planning and creating a work of art
- Know that artists are inspired by other artists
- Examine art created by others for inspiration
- Know Art has had multiple definitions over time and is always changing
- De-code a work of art and speculate about time period, purpose and artists' ideas
- Know that context in which a work of art was created can provide information about that era and culture
- Speculate regarding the time period during which the art was created including cultural cues
- Know that observation skills are necessary in order to describe a work of art
- Continue to develop and refine observation skills
- Form judgments about the quality of the work of art
- Know that viewers can be influenced by the setting in which they view the work
- Discuss how where a work of art is exhibited can influence how the viewer feels about the art

Guidance/Personal/Social Education

Students should know and be able to demonstrate mastery in the following skills by the end of fourth grade:

- Develop positive attitudes toward self as a unique and worthy person
- Identify values, attitudes, and beliefs
- Identify and express feelings
- Distinguish between appropriate and inappropriate behaviors
- Recognize personal boundaries, rights, and privacy needs
- Understand the need for self-control and how to practice it
- Demonstrate cooperative behavior in groups
- Identify personal strengths and assets
- Identify and discuss changing personal and social roles
- Recognize that everyone has rights and responsibilities
- Respect alternative points of view
- Recognize, accept, respect and appreciate individual differences
- Recognize, accept, and appreciate ethnic and cultural diversity
- Use effective communication skills
- Know that communication involves speaking, listening and nonverbal behavior
- Learn how to make and keep friends
- Understand consequences of decisions and choices
- Identify alternative solutions to a problem
- Develop effective coping skills for dealing with problems
- Demonstrate when, where and how to seek help for solving problems and making decisions
- Know how to apply conflict resolution skills
- Know when peer pressure is influencing a decision
- Demonstrate the ability to set boundaries, rights, and personal privacy
- Differentiate between situations requiring peer support and situations requiring adult professional help
- Learn how to cope with peer pressure
- Learn techniques for managing stress and conflict

Career Education

- Students will acquire the skills to investigate the world of work in relation to knowledge of self to make informed career decisions
- Students will employ strategies to achieve future career goals with success and satisfaction
- Students will understand the relationship between personal qualities, education, training and the world of work.
- Learn how to set goals
- Understand the importance of planning
- Identify personal skills, interests and abilities and relate them to current career choice
- Demonstrate knowledge of the career-planning process
- Demonstrate awareness of the education and training needed to achieve career goals
- Understand the relationship between educational achievement and career success
- Explain how student attitudes and work habits transfer from the home and school to the workplace
- Apply to daily activities the essential workplace skills such as commitment, communication, dependability, time management, personal initiative, etc.

Technology

Students will be able to:

Technology Basics

- use external storage devices (file server, flash drive)
- use peripheral devices

Computational Thinking: Code.org Course 3 part 1

Programming

- Hummingbird Duo
- Scratch Game Design

Intro to Robotics

- Lego Mindstorms

Word Processing

- modify document layout
- format text
- copy, cut and paste text
- create bullet and number lists
- use tables to organize information
- insert and modify images
- use spelling and grammar check
- preview and print document
- save document in another format
- create and modify a template

Presentations

- create collaborative presentation with multiple slides
- add and format text
- add media to slides
- add audio recordings to slides
- modify slide backgrounds
- animate slide objects
- add transitions
- save presentation in another format

Spreadsheets

- navigate cells
- enter, copy, and fill data into cells
- format cells
- create charts or graphs from data
- use formulas and function

Databases

- create fields of different types
- enter data in fields
- sort and filter data

Web Browsers

- view multiple pages with tabs
- bookmark favorite sites
- use mapping & direction tools
- explore research resources
- use different types of search engines
- refine searches to narrow results

Photo Editing

- import photos from web and cameras

- crop and resize photos

Communication

- create, send and reply to an email messages
- attach files to messages
- add contacts to an address book
- chat with peers
- write a blog and comment on entries

Ethics & Online Safety

- use technology in an ethical manner
- demonstrate age-appropriate online safety practices
- identify copyrighted material

Keyboarding

- use proper posture for typing
- apply correct keyboarding techniques using home row position
- improve accuracy and words-per-minute speed

Library

Students will be able to:

Behaving as a Digital Citizen

- Identify and practice ethical and safe online behavior.
- Identify potential consequences of unethical, unsafe and inappropriate behavior.

Demonstrating Technology Etiquette & Safety

- Apply proper etiquette when using technology (e.g., cyber safety).
- Explain importance of safe, legal and responsible use of technology.

Determining Author's Point of View (Perspective)

- Identify information about author to explain point of view.

Drawing Evidence from Text

- Identify wide range of texts that tell a story to make a point, express personal opinion or provide enjoyable experience as examples of grade-level-appropriate literary texts.
- Identify reference sources and information texts that are appropriate to grade level.

Drawing Evidence: Using Primary & Secondary Sources

- Independently locate and select literary non-fiction and information texts on grade level.
- Independently use various print and digital reference sources.

Evaluating Arguments

- Identify evidence that author uses to support a particular point.

Evaluating Diverse Media

- Explain how information from various sources contributes to understanding text.

Evaluating Sources

- Recognize factors that support credibility of sources.
- Discuss criteria for evaluating a website: credibility, relevance, bias, accuracy and currency.

Evaluating, Analyzing & Integrating Information

- Research and understand information from different media
- Explain how information can be used to explain topic

Identifying Main Ideas

- Restate part of text read aloud or presented orally or in other media formats.
- Use own words when restating information.

Preparing Multimedia Presentations

- Add audio recordings and visual displays to presentations to enhance development of main ideas or themes.

Producing and Publishing with Technology

- With some guidance and support, produce and publish product and interact and collaborate with others.

Research Process: Note-taking Strategies

- Draw evidence from text to answer an information need using age-appropriate note-taking skills.

Research Process: Effective Inquiry

- Conduct short as well as in-depth research projects.

Research Process: Evaluating Sources (See Also Critical Thinkers Big Idea)

- Use literacy strategies to determine readability of source (e.g., five-finger rule for vocabulary). Make conclusions about information in sources.

Research Process: Note-taking Strategies and Presenting Research Findings

- Recall information from past experiences.
- Gather information from sources, including both print and digital to answer research questions.
- Record and organize answer(s) to question(s) in note-taking format by sorting information into provided categories.
- Paraphrase information found, so that it is not copied exactly from source. (plagiarizing)
- Summarize information from notes into final project.
- Identify bibliographic information.

Research Process: Accessing, Identifying and Evaluating Resource

- Will develop understanding of searching, locating, and understanding print and electronic resources to gather information from reliable sources.

Research Process: Developing Research Topic and Question(s)

- Choose topic to research
- With guidance, develop questions to be answered about topic

Research Process: Synthesizing Information

- Will create age appropriate use of information, note-taking skills, and bibliographic citation formats to create reports

Selecting Informational Texts & Literary Non-Fiction

- Independently, locate and select literary non-fiction and informational text on grade level.
- Independently, use various print and digital reference sources.

Selecting Literary Fiction

- Independently select grade-level-appropriate literary fiction in a variety of genres.
- Apply strategies to create meaning from literary fiction.
- Read self-selected literary fiction presented in any format to gain meaning by questioning, reflecting, responding and evaluating.

Using Digital Media

- Select and utilize an appropriate digital media to enhance a content-specific product.
- Use digital media legally and ethically, practicing Educational Fair Use.

Using Information Ethically

- Use paraphrasing to avoid plagiarizing

Fifth Grade

Language Arts

Students should know and be able to demonstrate mastery in the following skills by the end of fifth grade:

Word Study

- Decoding: Open, closed, and vowel team syllables, discernment of long and short vowel patterns

Fluency

- Read on-level text including poetry with purpose, understanding, prosody (reading with expression and phrasing)
- Self-correct appropriately

Comprehension

- Describe in-depth: character/setting/event in story/drama based on specific details i.e.: thoughts, words, or actions
- Use paraphrasing to summarize text
- Use graphics to interpret or develop information from text
- Identify author's purpose, both explicit and implied, and evaluate effectiveness
- Compare stories in the same genre and stories in different genres
- Determine the difference between a topic of a story and the themes in a text (ex – Theme: good vs. evil, hope vs. despair, or social action; Topic: Working together for the common good)
- Compare/contrast story elements within and among texts
- Determine how characters respond to challenges in a text
- Compare two or more characters, setting or events using context or print and electronic resources
- Determine how particular points of view are developed by an author
- Identify and determine influence of point of view (1st or 3rd person)

- Draw appropriate conclusions and make logical generalizations based on the explicit and implicit information of the text
- Determine main idea/s and the relevant details that support them
- Relate two or more main ideas within a passage to develop a comprehensive understanding
- Identify text structure: Chronology, compare/contrast, cause/effect, problem/solution
- Determine cause and effect relationships and their influence on the action of the story
- Discern between fact and opinion
- Determine how the speaker in a poem reflects on a topic
- Compare multiple narrators' perspectives and development of information
- Interpret inferential information using explicit textual support regarding literary elements such as plot, character, setting
- Determine influence of setting
- Explain how a series of chapters, scenes etc. fit together to create the overall text
- Identify, use and interpret: Hyperbole, personification, alliteration, onomatopoeia, idioms, simile and metaphor *in text*
- Discern essential from non-essential information in a text
- Understand time changes associated with flashbacks and preludes associated with foreshadowing
- Note historical influences on text
- Analyze multiple accounts of the same event/topic, noting differing perspectives
- Discuss the development of the protagonist and antagonist
- Evaluate reliability of informational sources
- Integrate information from multiple sources to demonstrate subject knowledge
- Explain how an author uses reasons/evidence to support points in a text
- Compare the structure of multiple poems
- Determine how the structure of a drama impacts meaning

Vocabulary

- Synonyms/antonyms to extend word meaning
- Homonyms
- Prefixes (en-, pro-, retro-, an-, anti-, circ-, trans-, sub-, super-, sur-)
- Suffixes (-able, -ible, -ance, -ence, -phobia, -ology)
- Greek and Latin roots
- Use context clues to determine meaning of unknown words
- Polysemous words- ex: tax (noun, verb, etc.)
- Use of resources for definition and associations i.e.: dictionary/thesaurus both hard back and electronic
- Interpret and/or use figurative language *in text*
- Analogies
- Multiple meaning words
- Understand denotation and connotation of words
- Tier 2 vocabulary

Grammar

- Identify the object of the preposition
- Identify transitive and intransitive verbs
- Produce direct and indirect objects correctly
- Identify and use gerunds (-ing verb form acting as a noun ex. traveling)
- Recite, identify and use all state-of-being verbs
- Distinguish between verb forms of -ing and gerunds
- Maintain verb tense in writing
- Add common noun suffixes to create words
- Establish verb agreement with collective nouns
- Use verb phrases to elaborate and expand complex sentences
- Use adjective sequence when describing a noun in order of importance
- Identify and use adjective phrases
- Recognize and use adverbs in various positions in relationship to the verb
- Maintain pronoun antecedent agreement
- Use conjunctions to establish clear and accurate relationships within complex sentences
- Recognize and use correlative conjunction pairs, maintaining

verb agreement

- Recognize interjections and explain their function
- Use transitional wording to establish a well articulated sequence of ideas
- Use prepositional phrases and prepositions to combine sentences
- Use active voice
- Review sentence types and conjunctions
- Use independent and dependent clauses correctly
- Write sentences with parenthetical information such as noun and verb phrases
- Write using precise words choice
- Choose words and punctuation for effect

Mechanics

- Capitalize appropriate words within continued dialogue
- Capitalize significant events (ex. Civil War)
- Accurately use semi-colons
- Accurately use hyphens
- Accurately use parentheses
- Accurately punctuate sentences in dialogue
- Use italics or quotation marks for titles
- Accurately use commas after an introductory clause, within continued dialogue, and before a coordinating conjunction
- Spell words correctly

Composition

Write: Personal narrative, summaries, research, procedural, argument, compare/contrast, problem/solution, explanatory, response to literature, note-taking, and in journals

Communication (Speaking/Listening)

- Collaborative discussions posing questions that enhance the dialogue
- Use complete sentences to express coherent thoughts
- Minimum of 2 oral presentations per year at teacher's discretion

Research (ongoing) – Independent

- Identify need for research
- Formulate research topic, understand need to narrow or broaden topic choice, develop questions to design research strategy
- Select and utilize a variety of print and electronic resources, including primary sources and personal interview
- Organize, represent, and interpret important points and key details from sources
- Utilize electronic MLA bibliographical citations
- Analyze and interpret information to effectively communicate it to an audience
- Synthesize research project
- Create a project designed utilizing new personal knowledge and ideas
- Evaluate and reflect upon the research process

Math

In Fifth Grade, learning focuses on procedures, concepts, and applications in three critical areas:

- Developing addition/subtraction fluency with fractions, and understanding of multiplication/division of fractions in limited cases.
- Developing fluency with decimal operations, extending division to 2-digit divisors, integrating decimals into the place-value system, and understanding operations with decimals to hundredths.
- Developing an understanding of volume.

Students should know and be able to demonstrate mastery in the following skills by the end of fifth grade:

Operations & Algebraic Thinking

- Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or

product.

- 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. For 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 & Operations in Base Ten

- 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 $1/10$ of what it represents in the place to its left.
- 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.
- Read, write, and compare decimals to thousandths.
- Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
- Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
- Use place value understanding to round decimals to any place.
- Fluently multiply multi-digit whole numbers using the standard algorithm.
- 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.
- 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.

Number & Operations - Fractions and Decimals

- 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. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$.)
- 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. For example, recognize an incorrect result $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$, by observing that $\frac{3}{7} < \frac{1}{2}$.
- 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. For example, 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 what two whole numbers does your answer lie?
- Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
- 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 $a \times q \div b$. For example, use a visual fraction model to show $(\frac{2}{3}) \times 4 = \frac{8}{3}$, and create a story context for this equation. Do the same with $(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}$. (In general, $(\frac{a}{b}) \times (\frac{c}{d}) = \frac{ac}{bd}$.)
- 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.
- Interpret multiplication as scaling (resizing), by:
- 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.

- 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 $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.
- Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
- Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
- Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.
- Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.
- Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$ -cup servings are in 2 cups of raisins?

Measurement & Data

- 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 multi-step, real world problems.
- Make a line plot to display a data set of measurements in fractions of a unit ($1/2$, $1/4$, $1/8$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For 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.

- Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
- 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.
- 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.
- Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
- Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
- 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.
- 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.
- Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Geometry

- 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).
- 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.

- Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.
- Classify two-dimensional figures in a hierarchy based on properties.

In Fifth Grade, students will work towards proficiency of the following mathematical practices:

- Make sense of problems and persevere in solving them.
 - 30. Make sense of your problem.
 - 31. Reflect on your thinking as you solve the problem.
 - 32. Keep trying when your problem is hard.
 - 33. Check whether your answer makes sense.
 - 34. Solve problems in more than one way.
 - 35. Compare the strategies you and others use.
- Reason abstractly and quantitatively.
 - 30. Create mathematical representations using numbers, words, pictures, symbols, gestures, tables, graphs, and concrete objects.
 - 31. Make sense of the representations you and others use.
 - 32. Make connections between representations.
- Construct viable arguments and critique the reasoning of others.
 - 30. Make mathematical conjectures and arguments.
 - 31. Make sense of others' mathematical thinking.
- Model with mathematics.
 - 30. Model real-world situations using graphs, drawings, tables, symbols, numbers, diagrams, and other representations.
 - 31. Use mathematical models to solve problems and answer questions.
- Use appropriate tools strategically.
 - 30. Choose appropriate tools.
 - 31. Use tools effectively and make sense of your results.
- Attend to precision.
 - 30. Explain your mathematical thinking clearly and precisely.
 - 31. Use an appropriate level of precision for your problem.
 - 32. Use clear labels, symbols, and mathematical language.
 - 33. Think about accuracy and efficiency when you count, measure,

and calculate.

- Look for and make use of structure.
 - 30. Look for mathematical structures such as categories, patterns, and properties.
 - 31. Use structures to solve problems and answer questions.
- Look for express regularity in repeated reasoning.
 - 30. Create and justify rules, shortcuts, and generalizations.

Science and Health

Students should know and be able to demonstrate mastery in the following skills by the end of fifth grade:

Subject: Earth Space Science

Content: Earth and Sun

- Observe phenomenon of outdoor shadows by using sun tracker, oriented by a compass, to make hourly records of the position of the shadow
- Develop and use models to understand Earth's place in the solar system
- Understand that interactions of Earth, the Sun and the Moon reveal predictable patterns- daily length and direction of shadows; day and night; and seasonal appearance of stars in the night sky
- Record the appearance of the Moon every day for a month, and analyze their observations to discover the sequence of changes
- Simulate the Earth's rotation to observe the appearance of stars rising in the east and setting in the west
- Use tubes and syringes students discover that air takes up space and is compressible
- Understand that troposphere is the layer of the atmosphere closest to the earth where most of the air resides and where weather happens
- Investigate uneven heating by recording and graphing temperature changes when two earth materials absorb solar energy
- Observe energy transfer by radiation and conduction
- Observe convection currents in water as a model of what happens in the air
- Test designs for solar water heaters
- Simulate the travel of a drop of water through the water cycle to explore the complexities of the process
- Gain experiences that contribute to the understanding of crosscutting concepts of patterns; cause and effect; scale, proportion, and quantity; systems and systems models; and energy and matter

Subject: Life Science**Content: Environments**

- Develop an attitude of respect and understanding for life.
- Gain experience with the major environmental factors interrestrial and aquatic systems.
- Conduct controlled experiments with plants to determine ranges of tolerance.
- Determine an organism's optimum conditions and environmental preferences.
- Organize and analyze data from experiments and investigations with plants and animals.
- Observe and describe changes in complex systems overtime.
- Relate laboratory studies to natural systems.
- Apply mathematics in the context of science.
- Acquire vocabulary associated with environmental biology.
- Exercise language, math, and social studies skills in the context of biology investigations.
- Use scientific thinking processes to conduct investigations and build explanations: observing, communicating, comparing, organizing, and relating

Subject: Physical Science**Content: Mixtures and Solutions**

- Know that matter is made of particles too small to be seen
- Understand that matter is conserved when it changes state – from solid to liquid to gas – when it dissolves in another substance, and when it is part of a chemical reaction
- Make mixtures of a solid and a liquid and separate them with screens, filters and evaporation
- Understand that the mass of a solution is equal to the mass of its constitues
- Begin to develop a model of dissolving
- Develop an explanation to a phenomenon for which they have incomplete information
- Investigate the ratio of solute to solvent in solutions and define concentrated and diluted solutions
- Use a balance scale to compare different concentrations of solutions
- Create a layered solution based on the density
- Investigate the solubility of solutes in water to discover that there is a different maximum amount of every solute that will dissolve in a measure of water (saturation)
- Make more complex mixtures of water with multiple solutes and observe the chemical reaction
- Recognize that the gas or precipitate is evidence of a reaction

- Gain experience in the cross-cutting concepts of patterns; cause and effect; scale, proportion and quantity; systems and systems models; and energy and matter.

Subject: Health

Content: Growth and Development

- Understand the stages of the life-cycle from birth to death
- Identify how they have changed physically since birth
- Identify how they have changed emotionally since birth
- Identify how they have changed socially since birth
- Understand that everyone goes through physical and mental development at their own pace

Subject: Health

Content: Immune System

- Understand the job of the immune system.
- Identify the parts of the body that make up the immune system.
- Understand the importance of the immune system

Subject: Health

Content: Muscular System

- Identify the role of the muscular system in the human body
- Identify the parts that make up the muscular system
- Identify the major muscles in the body

Subject: Health

Content: Major Diseases

- Understand the causes of heart disease
- Understand the side effects of heart diseases
- Identify what people can do to reduce their risk of heart disease
- Understand how cancer develops
- Understand the side effects of cancer
- Identify what people can do to reduce their risk of cancer
- Identify the common ways to treat cancer

Social Studies

Students should know and be able to demonstrate mastery in the following skills by the end of fifth grade:

Content: Five Themes of Geography

- Identify parts of a map

- Collect, analyze, and interpret information from maps
- Identify and describe the five main themes of geography: location, place, movement, regions, and human-environmental interactions
- Draw conclusions about a region using artifacts and primary sources
- Apply critical thinking skills to organize and analyze geographic information
- Use latitude and longitude to determine exact locations of places on Earth
- Describe a variety of landform regions in the United States
- Hypothesize about the reasons for locations of cities and towns based on distinguishing geographical features.
- Analyze the consequences of human modification of the environment

Content: Earliest Americans

- Understand how people modify and adapt to their environment
- Interpret information in visuals
- Determine and analyze similarities and differences between Native American tribes
- Analyze cause and effect relationships among Native American geography and resources
- Arrange events in chronological sequence
- Analyze the relationship between geography and culture
- Analyze and explain economic patterns among Native American regions

Content: The Age of Exploration and European Settlement

- Analyze the economic motivations for exploration
- Draw conclusions about the past using historical maps and evidence
- Analyze cause and effect relationships in exploration
- Explore, observe, identify, and analyze how individual explorers relate to one another
- Arrange events in chronological sequence
- Summarize the contributions of Spanish Colonization in the Americas
- Identify French explorers of the Americas and their contributions
- Analyze English exploration and colonization of America
- Analyze the impact of religion on early settlements of America

Content: The Thirteen Colonies – New England, Middle and Southern Colonies

- Analyze primary sources and artifacts to acquire information
- Interpret historical fiction pieces to draw conclusions about life in the colonies
- Understand the political, religious, social, and economic institutions that evolved in the colonial era
- Describe the accomplishments of colonial leaders
- Compare and contrast representative governments within the colonies
- Classify and categorize major industries of the colonial era
- Summarize the contributions of different religious and cultural groups to the settlement of the colonies.
- Differentiate fact from opinion in historical documents

Content: American Revolution

- Analyze cause and effect relationships leading to the war
- Identify the roles and contributions of leaders during the revolutionary period
- Use geographical tools to collect, analyze, and interpret data
- Identify bias in written and visual material
- Identify points of view from historical context surrounding an event
- Sequence events leading to and resulting from the revolution

Content: Constitution and Government

- Explain the significance of the Bill of Rights
- Identify and analyze the struggles leading to the ratification of the Constitution
- Understand the importance of voluntary individual participation in the democratic process
- Summarize the formation of the nation's first political parties
- Identify and understand the 3 branches of government

Music

Students should know and be able to demonstrate mastery in the following skills by the end of fifth grade:

- Create, compose, and perform music using the diatonic scale
- Read rhythmic notation using q. e , es patterns
- Create rhythmic patterns using q. e , es patterns
- Define and perform partner song
- Identify and perform first and second endings, D.S., D.C., Coda, Fine
- Develop successful techniques for memorizing lyrics
- Perform using correct posture, breathing, and embouchure
- Develop an understanding of their role within the ensemble

- Discuss the influence of personal experience on pieces of music
- Differentiate between styles: musical theatre, opera, etc.
- Compare and contrast: Form, Instrumentation, Story, Theme
- Compare quality of two pieces from different cultures/ time periods and provide evidence
- Compare and contrast various listening environments

Content: Band 5

- Perform with excellent intonation, blend, and balance
- Perform Eb Major and g minor concert scales, octaves
- Perform articulations including slur, staccato, accent
- Identify key signature
- Identify and perform intervals

Content: Strings 5

- Perform with excellent intonation, blend, and balance
- Perform G Major, C Major, and e minor scales, one octave
- Perform articulations including slur, staccato, accent
- Demonstrate hooked bow technique
- Identify key signature
- Identify and perform intervals
- Play, in tune, F natural and C natural (lowered second finger)

Content: Chorus 5

- Sing with proper intonation, blend, and balance
- Sing with seamless chest to head voice break
- Understand and sing in unison, 2-parts, and possibly 3-parts
- Read music from choral octavos
- Rehearse, listen, and blend as a group
- Practice as an individual to memorize music and lyrics

Physical Education

Students should know and be able to demonstrate mastery in the following skills by the end of fifth grade:

- Soccer, Team Handball, Educational Gymnastics, Floor Hockey, Basketball, Volleyball, Badminton/Racquet Sports, Baseball/Softball, Flag Games, Frisbee/Ultimate Frisbee, Lacrosse, Track & Field/Olympics, President's Fitness Challenge, Jump Rope/Hula Hoop, Cooperative

Games/Challenges, Traversing Wall, Scooters/Parachute,
Balance/Coordination/Agility

Over the course of the year, students will be able to:

- Work with and compete against others in a variety of movement experiences, which emphasize teamwork, cooperation, and fair play
- Apply learned skills in game situations
- Apply strategy to be successful in game play
- Understand and apply the rules, scoring during game play
- Use manipulative skills such as kicking, throwing, catching, dribbling, striking to achieve a level of success within a specific unit
- Use motor skills such as running, jumping, leaping, hopping, sliding, galloping, skipping to achieve a level of success within a specific unit
- Use balance, coordination and agility exercises to achieve success within a specific unit
- Display respect for individual differences
- Display appropriate sportsmanship
- Understand and apply primary principles of physical fitness
- Understand the benefits associated with regular physical activity

Art

Students should know and be able to demonstrate mastery in the following skills by the end of fifth grade:

- Content: Painting, Drawing, Sculpture, Mixed-media, Printmaking, Art History
- Know that making art is a process
- Create a work of art by employing the creative process.
- Know that artists are inspired by what they see, feel, hear, imagine, and experience
- Create a work of art that is based on their own experience
- Know that artists' work can evolve from a specific theme or context
- Create multiple artworks that use a common theme.
- Know that visual culture exists

- Compare and contrast works of art to determine which are true works of art and which are artifacts of our visual culture
- Know that a position is formed after critical analysis occurs.
- Articulate and defend a position
- Know that the setting can influence judgment about a work of art
- Discuss how where a work of art is exhibited can influence how the viewer feels about the quality of the art

Guidance/Personal/Social Education

Students should know and be able to demonstrate mastery in the following skills by the end of fifth grade:

- Develop positive attitudes toward self as a unique and worthy person
- Identify values, attitudes, and beliefs
- Identify and express feelings
- Distinguish between appropriate and inappropriate behaviors
- Recognize personal boundaries, rights, and privacy needs
- Understand the need for self-control and how to practice it
- Demonstrate cooperative behavior in groups
- Identify personal strengths and assets
- Identify and discuss changing personal and social roles
- Recognize that everyone has rights and responsibilities
- Respect alternate points of view
- Recognize, accept, respect and appreciate individual differences
- Use effective communication skills
- Know that communication involves speaking, listening and nonverbal behavior
- Identify and demonstrate understanding of ethical, safe, and social online behavior and potential consequences of unethical, unsafe, and inappropriate behavior
- Learn how to make and keep friends
- Understand consequences of decisions and choices
- Identify alternative solutions to a problem
- Develop effective coping skills for dealing with problems
- Demonstrate when, where and how to seek help for solving

- problems and making decisions
- Know how to apply conflict resolution skills
Know when peer pressure is influencing a decision
 - Demonstrate the ability to set boundaries, rights, and personal privacy
 - Differentiate between situations requiring peer support and situations requiring adult professional help
 - Learn how to cope with peer pressure
 - Learn techniques for managing stress and conflict

Career Education

- Students will acquire the skills to investigate the world of work in relation to knowledge of self to make informed career decisions
- Students will employ strategies to achieve future career goals with success and satisfaction
- Students will understand the relationship between personal qualities, education, training and the world of work
- Learn how to set goals
- Understand the importance of planning
- Identify personal skills, interests and abilities and relate them to current career choice
- Demonstrate knowledge of the career-planning process
- Demonstrate awareness of the education and training needed to achieve career goals
- Understand the relationship between educational achievement and career success
- Describe the factors that influence career choices, such as location, salary, work schedule, working conditions, etc.
- Complete the Explorer Inventory
- Learn about the six different Holland Codes
- Explore a career of interest online
- Connect personal interests and abilities and academic strengths to personal career options

Technology

Students will be able to:

Technology Basics

- use external storage devices (file server, flash drive)
- use peripheral devices

Computational Thinking: Code.org course 3 part 2

3D Design and Practice

Robotics Programming—Lego EV3

Word Processing

- modify document layout and margins
- format text and use text styles
- insert page breaks and page numbers
- use Tools Menu (Word Count, Thesaurus, Dictionary)
- copy, cut and paste text
- create bullet & number lists
- insert and modify images
- use spelling and grammar check
- preview and print documents
- save document in another format

Presentations

- create presentation with multiple clips
- take, import, and crop video clips
- add transitions and audio
- organize and edit photos
- import and edit digital movie clips
- add titles and credits
- save presentation in another format

Spreadsheets

- navigate cells
- enter, copy, and fill data into cells
- format cells
- create charts or graphs from data
- use formulas and functions

Databases

- create fields of different types
- enter data in fields
- sort and filter data

Web Browsers

- view multiple pages with tabs
- bookmark favorite sites
- use various online research resources
- use different types of search engines
- refine searches to narrow results

Photo Editing

- import photos
- crop and resize photos

Communication

- create, send and reply to an email message
- attach files to messages
- add contacts to an address book
- chat with peers

Collaboration

- collaborate to add content and media to a wiki
- collaboratively edit an online document
- create an online form or survey
- explore web tools

Keyboarding

- use proper posture for typing
- apply correct keyboarding techniques using home row position
- improve accuracy and words-per-minute speed

Ethics & Online Safety

- use technology in an ethical manner
- demonstrate age-appropriate online safety practices
- identify copyrighted material

Library

Students will be able to:

Behaving as a Digital Citizen

- Identify and practice ethical and safe online behavior.
- Identify potential consequences of unethical, unsafe and inappropriate behavior.

Demonstrating Technology Etiquette & Safety

- Apply proper etiquette when using technology (e.g., cyber safety).

- Explain importance of safe, legal and responsible use of technology.

Determining Author's Point of View (Perspective)

- Identify information about author to explain point of view.

Drawing Evidence from Text

- Identify wide range of texts that tell a story to make a point, express personal opinion or provide enjoyable experience as examples of grade-level-appropriate literary texts.
- Identify reference sources and information texts that are appropriate to grade level.

Drawing Evidence: Using Primary & Secondary Sources

- Independently locate and select literary non-fiction and information texts on grade level.
- Independently use various print and digital reference sources.

Evaluating Arguments

- Explain how author uses reason and evidence to support particular points.

Evaluating Diverse Media

- Locate information from various print and digital sources to answer question or solve problem.

Evaluating Sources

- Evaluate sources for credibility and currency.
- Identify facts and details that support credibility and currency.
- Discuss criteria for evaluating a website: credibility, relevance, bias, accuracy and currency.

Evaluating, Analyzing & Integrating Information

- Research and understand information from different media and incorporate that information to research to enhance topic.

Identifying Main Ideas

- Capture main points from text read aloud or presented orally or in other media formats.
- State information in concise form and in own words.

Preparing Multimedia Presentations

- Add multimedia components and visual displays to presentations to enhance development of main ideas or themes.

Producing and Publishing with Technology

- With some guidance and support, produce and publish product and interact and collaborate with others.

Research Process: Note-taking Strategies

- Draw evidence from text to answer an information need using age-appropriate note-taking skills.

Research Process: Effective Inquiry

- Conduct short as well as in-depth research projects. **Research**

Process: Evaluating Sources (See Also Critical Thinkers Big Idea)

- Use literacy strategies to determine readability of source (e.g., five-finger rule for vocabulary).
- Make conclusions about information in sources. **Research**

Process: Note-taking Strategies and Presenting Research Findings

- Recall information from past experiences.
- Gather information from sources, including both print and digital to answer research questions.
- Record and organize answer(s) to question(s) in note-taking format by sorting information into provided categories.
- Paraphrase information found, so that it is not copied exactly from source. (plagiarizing)
- Summarize information from notes into final project.
- Identify bibliographic information.

Research Process: Accessing, Identifying and Evaluating Resource

- Will develop understanding of searching, locating, and understanding print and electronic resources to gather information from reliable sources.

Research Process: Developing Research Topic and Question(s)

- Choose topic to research
- With guidance, develop questions to be answered about topic

Research Process: Synthesizing Information

- Will create age appropriate use of information, note-taking skills, and bibliographic citation formats to create reports

Selecting Informational Texts & Literary Non-Fiction

- Independently, locate and select literary non-fiction and informational text on grade level.
- Independently, use various print and digital reference sources.

Selecting Literary Fiction

- Independently select grade-level-appropriate literary fiction in a variety of genres.
- Apply strategies to create meaning from literary fiction.

- Read self-selected literary fiction presented in any format to gain meaning by questioning, reflecting, responding and evaluating.

Using Digital Media

- Select and utilize an appropriate digital media to enhance a content-specific product.
- Use digital media legally and ethically, practicing Educational Fair Use.

Using Information Ethically

- Use paraphrasing to avoid plagiarizing

Appendix

Tier 2 Vocabulary Words (K-----5)

K	1	2	3	4	5
abundant	abandon	anticipate	abate	allot	accolade
astonish	assume	casual	console	amble	banter
commotion	capacity	cunning	contradict	audacity	commence
conceal	chaos	detest	dismay	barren	condescending
consequence	dread	dispense	dubious	conviction	contaminate
drench	eccentric	frail	endure	cynical	deliberate
foe	enrage	gruff	forlorn	deft	diabolical
frolic	fiery	lucid	gullible	divulge	dwindle
harsh	futile	parched	humility	fickle	exasperate
idle	gape	perilous	hypocritical	formidable	grimace
insist	haven	raucous	presumptuous	immense	insolent
jubilant	nuisance	brisk	agile	incredulous	lavish
linger	optimal	accelerated	beckon	mired	malady
meander	pandemonium	efficient	deliberate	mortify	petulant
obedient	scold	distribute	flatter	ominous	prudent
predicament	creeping	fortunate	invincible	repulsive	retaliate
tranquil	cautious	irritate	judicious	solemn	tumultuous
consider	fleeting	jaunt	legacy	tentative	wrath
drowsy	hanker	luster	meager	essential	agitate
frisky	lumber	ordeal	nimble	belated	expeditious
gradual	obstacle	pristine	proclaim	nestle	belabor

glisten	prompt	quest	stagnant	petty	deride
jeopardy	sluggish	tedious	vagrant	quirk	minute
peer	utterance	victorious	inkling	spry	ornate
rapid	reasonable	irritate	invincible	vigilant	admonish

No Excuse Words

Students are expected to read and spell the following words by the end of the school year.

Kindergarten: I, like, the, and, see, we, a, to, me, come, my, with, you, what, are, now, is, how, find, this, will, be, for, go, make, play, said, she, good, all, he, no, do, down, have, help, look, out, off, take

Grade 1: the, of, have, give, was, your, some, are, one, they, come, who, what, very, many, said, does, two, any, when, where, should, once, their, were, because, sure, friend, move, gone, four, do, more, want, would, eight

Grade 2: eye, neighbor, people, machine, behind, young, idea, giant, build, laugh, you'll, thought, again, someone, woman, country

Grade 3: a lot, again, because, does, favorite, have, our, said, says, their, they, until, were