

Kehoe-France Northshore

5th Grade Curriculum

Language and Literature

The grade five language arts curriculum emphasizes systematic, explicit skills instruction in reading and writing. Students read and comprehend a wide variety of grade-level-appropriate literature. Students learn the writing process, writing strategies and writing applications with an emphasis on written and oral English language conventions and correct spelling. Some examples of specific concepts and skills which students are to master are provided in the topic areas listed below:

Reading - Foundational Skills:

- Know and apply grade-level phonics and word analysis skills in decoding words.

Reading - Fluency:

- Read with sufficient accuracy and fluency to support comprehension.

Reading Standards for Literature (poetry, short stories, myths, legends, dramas):

- Quote accurately from a text when explaining what the text says and when drawing inferences from the text.
- Determine a theme of a story, drama, or poem from details in the text, including how characters respond in a story or drama to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
- Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text.
- Determine the meaning of words or phrases in context, including figurative language and connotative meanings.
- Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a story, drama, or poem.
- Describe how a narrator's or speaker's point of view influences how events are described.
- Analyze how visual and multimedia elements contribute to the meaning, tone, or aesthetics of a text.
- Compare and contrast stories in the same genre on their approaches to similar themes and topics.
- Connect information in grade appropriate texts to prior knowledge and real life situations.
- By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity independently and proficiently.

Reading Standards for Informational Text:

- Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
- Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
- Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
- Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two texts.
- Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
- Utilize information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
- Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point.
- Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
- By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity independently and proficiently.

Writing:

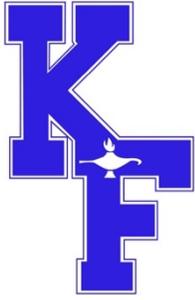
- Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- Produce clear and coherent writing in which development and organization are appropriate to task, purpose, and audience.
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a different approach.
- With guidance and support from adults, produce and publish grade appropriate writing using technology either independently or in collaboration with others.
- Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
- Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
- Draw relevant evidence from grade-appropriate literary or informational texts to support analysis, reflection, and research.
- Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences.
- Write a multiple paragraph composition with a clear topic, with ideas/events in sequence, with transitional expressions.

Speaking and Listening:

- Engage effectively in a range of collaborative discussions with diverse partners on grade 5 topics and texts, building on other's ideas and expressing their own clearly.
- Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
- Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- Include multimedia components and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
- Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task, audience, and situation.

Language:

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 - Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.
 - Form and use the perfect verb tenses.
 - Use verb tense to convey various times, sequences, states, and conditions.
 - Recognize and correct inappropriate shifts in verb tenses.
 - Use correlative conjunctions.
- Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.
 - Use punctuation to separate items in a series.
 - Use a comma to separate an introductory element from the rest of the sentence.
 - Use a comma to set off the words yes and no, to set off a tag question from the rest of the sentence and to indicate direct address.
 - Use underlining, quotation marks, or italics to indicate titles of works.
 - Spell grade-appropriate words correctly, consulting references as needed.
- Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- Determine of clarify the meaning of unknown and multiple-meaning words and phrases based grade 5 reading and content.
 - Use context as a clue to the meaning of a word or phrase.
 - Use roots, affixes and word origins to analyze and understand the meaning of complex words.
 - Consult reference materials, both print and digital.
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.



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Mathematics

By the end of fifth grade, students increase their command of the four basic arithmetic operations applied to fractions and decimals and learn to add and subtract positive and negative numbers. They finalize fluency with multi-digit addition, subtraction, multiplication, and division. They know and use common measuring units to determine length and area; recognize volume as an attribute of three-dimensional space; know and use formulas to determine the volume of simple geometric figures. They use grids, tables, graphs and charts to record and analyze data. The following are some examples of skills and concepts developed in the areas of:

Mathematical Practices:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Operations and Algebraic Thinking:

- Write and interpret numerical expressions.
 - Use parentheses or brackets in numerical expressions, and evaluate expressions with these symbols.
 - Write simple expressions with whole numbers, fractions, and decimals.
- Analyze patterns and relationships.
 - Generate two numerical patterns using two given rules. Identify relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.
 - Use and compute variables in simple algebraic expressions.
 - Use information from a graph to solve problems.
 - Solve linear equations from a given data set.

Number and Operations in Base Ten & Fractions:

- Understand the place value system.
 - 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 to its left.
 - Explain and apply patterns in the number of zeros of the product when multiplying a number by powers of 10. Explain and apply patterns in the values of the digits in the product or quotient, 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 numbers to 1 billion and decimals to thousandths.
 - Use place value understanding to round decimals to any place.
 - Identify prime numbers, and write numbers as a product of their prime factors.
- Perform operations with multi-digit whole numbers and with decimals to hundredths.
 - Fluently multiply multi-digit whole numbers.
 - Find whole-number quotients of whole numbers up to four digits dividends and two-digit divisors.
 - Add and subtract decimals.
 - Add, subtract, multiply, and divide decimals to hundredths using a variety of strategies.
 - Interpret percent as part of a hundred, and compute a given percentage of a number. Interpret percent as part of 100.
 - Explain relationships between decimals, fractions and simplified percent.
- Use equivalent fractions as a strategy to add and subtract fractions.
 - Add and subtract fractions with unlike denominators by replacing given fractions with equivalent fractions.
 - Solve word problems involving addition and subtraction of fractions; add and subtract fractions with unlike denominators including mixed numbers.
- Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
 - Interpret a fraction as division of the numerator by the denominator.
 - Multiply a fraction or a whole number by a fraction.
 - Interpret multiplication as scaling (resizing).
 - Solve real-world problems involving multiplication of fractions by whole numbers and mixed numbers.
 - Divide unit fractions by whole numbers and whole numbers by unit fractions.

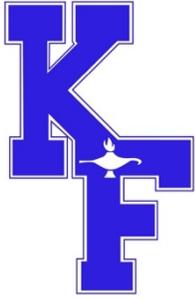
Measurement and Data:

- Convert like measurement units within a given measurement system.
 - Use these conversions to solve multi-step, real world problems.
 - Select and use the appropriate standard units of measure, abbreviations, and tools to measure length and perimeter.
- Represent and interpret data.
 - Make a line plot to display a data set of measurements in fractions of a unit.

- Understand concepts of volume and relate volume to multiplication and to addition.
 - Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
 - Measure volumes by counting cubes.
 - Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.

Geometry:

- Classify two-dimensional figures into categories based on their properties.
 - 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 0.
 - 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. Draw and identify lines and angles, and classify shapes by properties of their lines and angles (points, lines, line segments, rays, angles, and perpendicular and parallel lines).
 - Classify quadrilaterals in a hierarchy based on properties.
 - Identify a line of symmetry in a two-dimensional figure.
 - Identify diameter, radius, and circumference of a circle.



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Science

In fifth grade, students continue to learn that living things grow, change, are diverse, interdependent and interact with the changing environment. The earth and our universe are constantly changing; energy and matter interact causing change in our physical world. Some examples of specific concepts and skills which students are to master are provided in the topic areas listed below:

Science and Engineering Practices:

- Asking questions and defining problems.
- Developing and using models.
- Planning and carrying out investigations.
- Analyzing and interpreting data.
- Using mathematics and computational thinking.
- Engaging in argument from evidence.

Physical Science:

- Physical properties of matter
- Structure of atoms: protons, neutrons, and electrons
- Physical and chemical properties of various substances
- Properties and behavior of water in its solid, liquid, and gaseous phases
- Chemical reactions
- Gravity
- Motion, Speed, Force
- Potential and kinetic energy
- Renewable, non-renewable, or inexhaustible resources
- Light and Shadow
- Heat, Light and mechanical energy through electricity

Life Science:

- Cell components and functions
- Compare plant and animal cells.
- Metamorphosis of amphibians
- Photosynthesis
- Structural organization of living things
- Diseases and transmission
- Use dichotomous key to classify common plants and animals.
- Construct food chains
- Describe the roles of producers, consumers, and decomposers in a food chains.
- Compare food chains and food webs.

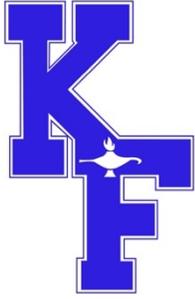
- Identify and describe ecosystems of local importance.
- Compare common traits of organisms within major ecosystems.
- Predator/prey relationships
- Plant and animal adaptation
- Human Body Systems: Digestive, Circulatory, Respiratory, Nervous (major organs of each and function of each system), Senses (eyes, ears, and nose)

Earth Science:

- Organic and inorganic matter in soil
- Rocks and minerals and uses
- Constructive and destructive forces
- Erosion and causes
- Components of the hydrosphere
- Atmosphere as a mixture of gases, water vapor, and particulate matter
- Identify, describe, and compare climate zones.
- Identify typical weather map symbols and the type of weather they represent.
- Physical characteristics of the Sun
- Polaris as the North Star
- Explain why the Moon, Sun, and stars appear to move from east to west across the sky.
- Differentiate among moons, asteroids, comets, meteoroids, meteors, and meteorites.
- Characteristics of the inner and outer planets
- Rotation and revolution
- Identify Earth's position in the solar system.
- Space exploration and technology

Science and the Environment:

- Ecosystems and population
- Pollutants found in water, air, and soil
- Naturally occurring cycles (carbon, water, oxygen, nitrogen); the water cycle



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Individuals and Societies

Students in grade five study the development of the nation from the Age of Exploration to 1763. Students learn about the colonial government founded on Judeo-Christian principles, the ideals of the Enlightenment, and the English traditions of self-government. Students study the cause, course and consequences of the early explorations through the War for Independence. Some examples of specific concepts which students are to master are provided in the topic areas below:

Geography:

- **Geography Skills**
 - Differentiate between various types of maps using characteristics, functions, and applications.
 - Analyze a map, using a map key/legend and symbols, distance scale, compass rose, cardinal or intermediate directions, and latitude and longitude.
 - Analyze maps from the Age of Exploration to 1763.
 - Describe ways in which location and environment influenced the settlements and land use in colonial America.
 - Identify natural resources used by people of colonial America and describe the impact of human action on the physical environment.
 - Explain how geographic differences and similarities among the thirteen American colonies contributed to political cooperation and conflict.
 - Explain and give examples of how Native Americans and Europeans adapted to living in a particular North American physical environment.

Civics:

- **Purposes, Foundation, and Structure/Civic Literacy**
 - Compare and contrast the different types of government in colonial America that influenced the development of the United States.
 - Summarize the key ideas that influenced the development of colonial governments and their influence on the growth of American democracy.
 - Investigate basic rights and responsibilities of citizens in current day government.

Economics:

- **Resources**
 - Cite evidence of the economic motivations for European exploration and settlement in the Americas using economic concepts such as supply and demand, and scarcity.
- **Interdependence**
 - Describe trade between the Americas, Western Europe, and Western Africa during the colonial period.
 - Analyze the differences in the economies of the New England colonies, Middle colonies, and Southern colonies.
- **Decision Making**
 - Explain the reasons for the French and Indian War and the economic effects of British policy on colonial America.
 - Describe economic activities within and among American Indian cultures prior to contact with Europeans.

History:

- **Historical Thinking Skills**
 - Construct a timeline of key events in American history from pre-Columbian civilizations to 1763. Interpret data presented in a timeline.
 - Use both a primary and secondary source to describe key events or issues in early American colonial history from the Age of Exploration to 1763.
 - Compare and contrast different points of view about key individuals and groups in early colonial American history to 1763.
 - Produce clear and coherent writing for a range of tasks, purposes, and audiences by:
 - Conducting historical research
 - Evaluating a broad variety of primary and secondary sources
 - Comparing and contrasting varied points of view
 - Determining the meaning of words and phrases from historical texts
 - Using technology to research, produce, or publish a written product
- **Key Events, Ideas, and People**
 - Describe the origins, characteristics, and expansion of indigenous cultures and groups that existed in the Americas prior to European exploration.
 - Identify early explorers and their motivations, challenges, and achievements.
 - Describe the Spanish conquests in the Americas including the impact on the Aztecs, Incas, and other indigenous peoples.
 - Explain the course and consequences of the Columbian Exchange, including its cultural, ecological, and economic impact on Europe, the Americas, and West Africa.
 - Compare and contrast the convergence of trade, cultural diffusion, and innovation in the Western Hemisphere after 1492.
 - Describe cooperation and conflict among Native Americans, Europeans, and Africans.
 - Identify the major European powers that colonized North America and explain their goals, challenges, and achievements.
 - Compare and contrast religious groups that settled colonial America and examine the role of religion in colonial communities.
 - Evaluate the motives that led to the establishment of the thirteen colonies.
 - Explain and give examples of how Native Americans, Europeans, and free and enslaved Africans adapted to living in the New England colonies, the Middle colonies, and the Southern colonies.
 - Describe the impact of key people, ideas, and events that led to the French and Indian War.