

Mathematics

K-8 Priority Standards & Skills

Kindergarten

- Count to 100 by ones and tens (K.NS.A.1)
- Count and write numbers to 20 (K.NS.A.4)
- Compare objects and numbers to 10 (K.NS.A.4)
- Make numbers up to 10 with objects, pictures, and words (K.RA.A.1&2)
- Fluently add/subtract to 5 (compose and decompose) (K.RA.A.1/2)
- Classify and sort two-dimensional shapes (regular and irregular) using geometric language (K.GM.C.8)
- Classify and sort three-dimensional shapes (regular and irregular) using geometric language (K.GM.C.8)
- Put together shapes to create new shapes (K.GM.C.10)

Grade 1

- Understand and compare numbers by place value up to 100, using symbols $<$, $>$, $=$ (1.NBT.A.3)
- Flexibly add and subtract numbers within 20 using a variety of strategies (1.RA.C.7/8)
- Fluently add/subtract to 10 (1.RA.C.7/8)
- Classify and sort two-dimensional shapes using geometric language (1.GM.A.3)
- Classify and sort three-dimensional shapes using geometric language (1.GM.A.3)
- Measure and compare lengths of objects (1.GM.B.6)
- Organize, represent, and draw conclusions from data, comparing up to three categories in graphs, t-charts, or tallies (1.DS.A.2)
- Understand and apply properties of operations and the relationship between addition and subtraction (1.RA.B.5)
- Mentally add and subtract 10 more and 10 less to a two-digit number with high accuracy (1.NBT.B.6)
- Show an understanding of place value (1.NBT.B.6)

Grade 2

- Count by ones, fives, and tens within 100 (2.NBT.A.3)
- Build, read, write, and compare three-digit numbers based on hundreds, tens, and ones (2.NBT.A.1, 2.A.4/5)
- Solve addition and subtraction problems within 100 using a variety of strategies (2.NBT.B.6, 2.RA.A.1)
- Fluently add/subtract to 20 using mental strategies (2.NBT.B.6, 2.RA.A.1)
- Add or subtract within 1000 and justify the solution (2.NBT.B.8)
- Recognize and draw shapes based on a set of attributes (2.GM.A.1)
- Tell and write time to the nearest 5-minute (2.GM.D.10)
- Create an accurate representation of a given set of data using line plots, picture graphs, & bar graphs (2.DS.A.1/2)
- Determine the value of a collection of coins up to \$1.00 (2.GM.D.12)

Grade 3

- Solve addition and subtraction problems within 1000 using a variety of strategies (3.NBT.A.3)
- Solve multiplication and division problems within 100 using a variety of strategies (3.RA.A.4)
- Fluently multiply/divide to 10 from memory (3.RA.A.4)
- Solve problems involving area and perimeter (3.GM.C.11 & 3.GM.D.15)
- Recognize and draw shapes based on a set of attributes (3.GM.A.2)
- Represent equivalent fractions using objects, pictures, and number lines - with denominators of 2, 3, 4, 6, 8, and 10 (3.NF.A.4)
- Compare fractions that have the same numerator or denominator (3.NF.A.6)
- Create an accurate representation of a give set of data, including line plots with wholes, halves, and quarters (3.DS.A.1 & 3.DS.A.4)

Grade 4

- Solve multi-step problems with addition and subtraction where the unknown might be in any position (4.NBT.A.5)
- Solve problems with multiplication using a variety of strategies (2-digit by 2-digit; 1-digit by 4-digit) (4.NBT.A.6)
- Solve problems with division using a variety of strategies (4-digit by 1-digit; US algorithm not expected) (4.NBT.A.7)
- Accurately determine area and perimeter of regular polygons to solve problems, explaining why the formulas work (4.GM.C.8)
- Create and compare equivalent fractions using benchmark fractions or models, including number lines (4.NF.A.3)
- Solve problems involving addition and subtraction of fractions and mixed numbers with like denominators and explain why answers make sense using models (4.NG.B.4 & 4.NF.B.6)
- Solve problems involving multiplication of a fraction by a whole number using visual fraction models to represent the problem, explaining why the results make sense (4.NG.B.8)
- Compare decimals to the hundredths place and justify why one is larger than another using models (4.NG.C.12)
- Use the four operations to solve problems that involve converting distances, intervals of time, liquid volumes, masses of objects, and money to larger or smaller units (4.GM.C.7)
- Create an accurate representation of a given set of data, to include line plots of measurement data (with wholes and fractional parts to eighths) to be used to solve problems (4.DS.A.2)

Grade 5

- Use Order of Operations to represent and solve problems (5.RA.B.3)
- Find the volume of a rectangular prism using concrete models, pictorial models, and formulas (5.GM.B.4)
- Find the volume of two solid figure composed of two non-overlapping right rectangular prisms (5.GM.B.4)
- Solve problems involving addition and subtraction of fractions and mixed numbers with unlike denominators and explain why the answers make sense using models and equations (5.NG.B.6)
- Generate numerical patterns to find coordinate pairs and graph them in a quadrant 1 grid (5.GM.C.7)
- Add, subtract, multiply, and divide decimals to the hundredths place using multiple strategies in multi-step problems (5.NBTA.A.6-8)
- Multiply fractions with fractions and whole numbers using models and strategies to solve real-world situations; explain thinking (5.NG.B.7)
- Divide a unit fraction by a whole number and a whole number by a unit fraction using models and strategies (5.NF.B)
- Convert different-sized units within both measurement systems (5.GM.D.8)

Grade 6

- Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape (6.DSP.A.2)
- Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary from a single number (6.DSP.A.3)
- Display and interpret data with dot plots, histograms, and box plots (6.SDP.B.4.a)
- Analyze the choice of measures of center and variability based on the shape of the data distribution and/or the context of the data (6.SDP.B.5.d)
- Create and evaluate expressions involving variables and whole number exponents (6.EEIA.2)
- Identify and generate equivalent algebraic expressions using mathematical properties (6.EEIA.3)
- Find the area of polygons by composing or decomposing the shapes into rectangles or triangles (6.GM.A.1)
- Find the volume of right rectangular prisms (6.GM.A.2)
- Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane (6.GM.A.3.a/b)
- Solve problems involving division of fractions by fractions (6.NS.A.1)
- Demonstrate fluency with division of multi-digit whole numbers and decimals with a place value understanding (6.NS.B.2; 6.NS.B.3)
- Understand a ratio as a comparison of two quantities and represent those comparisons (6.RPA.1)
- Understand the concept of a unit rate associated with a ratio and describe the meaning of unit rate (6.RPA.2)

Grade 7

- Investigate the probability of chance events (7.DSP.C.1)
- Investigate the relationship between theoretical and experimental probabilities for simple events (7.DSP.C.2)
- Find probabilities of compound events using organized lists, tables, tree diagrams, and simulations (7.DSP.C.4)
- Use properties of operations to generate equivalent expressions (7.EEIA.1/2)
- Solve problems using numerical and algebraic expressions and equations (7.EEIB.1/2)
- Understand the concepts of circles (7.GM.A.4)
- Understand the relationship between area, surface area, and volume (7.GM.B.2)
- Apply and extend previous understandings of operations to add, subtract, multiply, and divide rational numbers (7.NS.A.1-3)
- Recognize and represent proportional relationships between quantities (7.RPA.2)
- Solve problems involving ratios, rates, percentages, and proportional relationships (7.RPA.3)

Grade 8

- Construct and interpret scatter plots of bivariate measurement data to investigate patterns of association between two quantities (8.DSPA.1)
- Generate and use a trend line for bivariate data and informally assess the fit of the line (8.DSPA.2)
- Know and apply the properties of integer exponents to generate equivalent expressions (8.EEIA.1)
- Graph proportional relationships - (a) Interpret the unit rate as the slope of the graph, and (b) Compare two different proportional relationships (8.EEIB.1)
- Apply concepts of slope and y-intercepts to graphs, equations, and proportional relationships (8.EEIB.2)
- Solve linear equations and inequalities in one variable (8.EEIC.1)
- Analyze and solve systems of linear equations (8.EEIC.2)
- Define, evaluate, and compare functions (8.FA.1-3)
- Use functions to model relationships between quantities (8.FB.1/2)
- Understand that two-dimensional figures are similar if a series of transformations (rotations, reflections, translations and dilations) can be performed to map the pre-image to the image (8.GM.A.4)
- Explore angle relationships and establish informal arguments (8.GM.A.5)
- Understand and apply the Pythagorean theorem (8.GM.1-3)

English/Language Arts

K-8 Priority Standards & Skills

| Kindergarten | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Grade 7 | Grade 8 |
|--|--|--|---|---|---|--|---|---|
| <ul style="list-style-type: none"> Recognize and name all the letters of the alphabet (K.RF.1.A.b) Read at a smooth pace with appropriate expression (K.RF.4.A) Determine the meaning of unknown words in kindergarten level books by using context cues, word parts, and noting how words are related (K.R.3.C.d) Describe the connection between individuals, events, ideas, or pieces of information in a text (K.R.2.A.a) Recognize long and short sounds of vowels (K.RF.1.A.a) Recognize that words are represented by letters and separated by spaces (K.RF.2.A.e) Read common high-frequency words (K.RF.3.A.b) Consistently use multiple decoding strategies to solve tricky words, reading sentences by the end of the year (K.RF.3.A) Print all upper and lower-case letters (K.L.1.B.a) Use correct spelling, spacing, and punctuation in writing complete sentences (K.L.1.B.b) Participate in a variety of collaborative conversations to understand diverse perspectives, respectfully taking turns talking and listening (K.SL.3.A.a/b) Speak clearly and at an appropriate pace to express thoughts, feelings, and ideas (K.SL.4.A) Listen and ask focused questions to understand precisely what a speaker is saying (K.SL.3.A.c) | <ul style="list-style-type: none"> Use multiple decoding strategies to solve tricky words, checking to make sure it looks right, sounds right, and makes sense in a grade level text (1.R.1.B.e) Read at grade level with comprehension and fluency (1.RF.4.A.a) Retell a story and identify the central message or lesson, identifying the main topic and key details in a text (1.R.1.A.d) Understand the similarities and differences between texts (1.R.1.C.a) Use consonant blends and digraphs to read and write text (1.RF.2.A.d) Recognize that words are represented by letters and separated by spaces Know the difference between long and short vowel sounds (1.RF.2.A.b) Elaborate on ideas and make craft choices in writing (1.W.1.A.a) Use correct spelling and punctuation in writing complete sentences (1.W.1.C.c) Organize ideas using leads, transitions, and endings in writing (1.W.1.B.a/b) Report on a topic or tell a story and demonstrate use of relevant evidence when making thinking clear to the listener (1.W.3.A.c/e) Initiate and participate in collaborative discussions to understand diverse perspectives within the group (1.SL.1.A.a-c) Speak clearly and at an appropriate pace and adapt the tone, nuances, and connotations of words to affect meaning (1.SL.4.A.c) | <ul style="list-style-type: none"> Use multiple decoding strategies to solve tricky words, applying common vowel teams, decoding words within common roots, prefixes, and suffixes, and reading grade-appropriate irregularly-spelled words (2.RF.2.A.a-f) Know the central message, lesson, or moral of a story and describe how characters respond to major events and challenges (2.R.1.A.d) Integrate and evaluate information from a variety of digital and print formats and work to understand the author's message (2.R.4.A.a/b) Analyze text to study a character's feelings, form opinions about a story, and evaluate the author's intent (2.R.2.A.b) Consistently read at a smooth pace with appropriate expression (2.RF.4.A.a) Consistently use multiple decoding strategies to solve tricky words, checking to make sure it looks right, sounds right, and makes sense in a level text (2.R.1.B.e) Identify and read common vowel team pairs (2.RF.3.A.a) Tell a story or recount an event using complete sentences with details (2.W.1.B.a) Elaborate on ideas and make craft choices in writing (2.W.1.B.b) Organize ideas using leads, transitions, and endings in writing (2.W.1.B.c) Writing complete sentences and questions, using basic capitalization, punctuation, and spelling (2.W.1.C.b) Participate in a range of collaborative discussions and seek to understand diverse perspectives within the group (2.SL.2.A.a) Speak clearly and at an appropriate pace and adapt the tone, nuances, and connotations of words to affect meaning (2.SL.4.A.c) | <ul style="list-style-type: none"> Compare and contrast characters, setting, theme, plots in fiction, and main ideas and details in nonfiction texts (3.R.1.C.a) Understand what the author means but may not say in the text, understand the similarities and differences between texts, and support thinking with evidence from the text (3.R.2.A.d/e) Use multiple decoding strategies to solve tricky words, looking for cues in the text, relying on knowledge of prefixes, suffixes, and root words, and rereading to determine meaning and see if it makes sense (3.R.1.B.a/e) Integrate and evaluate information from a variety of digital and print formats and work to understand the author's message (3.R.4.A.a) Tell the difference between their own point of view and the point of view of the narrators or characters (3.R.2.A.g) Read at a smooth pace with appropriate expression (3.R.F.4.A) Produce complete sentences and questions, as well as capitalization, punctuation, and spelling (3.W.1.C.b) Organize information and ideas, plan and write opinion, informative, and narrative pieces (3.W.2.A-C) Participate in a range of collaborative discussions and seek to understand diverse perspectives within the group (3.SL.2.A.a) Speak clearly and at an appropriate pace and adapt the tone, nuances, and connotations of words to affect meaning (3.SL.4.A.c) | <ul style="list-style-type: none"> Refer to details in the text when drawing inferences and describing a character, setting, or event (4.R.2.A.a/d) Summarize the text by including the theme or main ideas and details (4.R.2.A.a/d) Consistently read at a smooth pace with appropriate expression, noticing and acting upon punctuation cues in a complex sentence and using voice to reflect what happens in text and what characters think, feel, and experience (4.RF.4.A.a) Compare and contrast similar themes and topics in different stories, myths, and traditional literature form different cultures (4.R.1.C.a/b) Integrate parts of a text or story in relation to the whole, analyzing character, perspective, and author's purpose to make better sense of the complete text (4.R.3.B.b) Integrate and evaluate information from a variety of digital and print formats and work to understand the author's message (4.R.4.A.b) Use multiple decoding strategies to solve tricky words, using definitions or synonyms found in text, substituting similar words and rereading for meaning, and using prefixes, suffixes, and root words (4.RF.3.A.b) Elaborate on ideas and make craft choices across genres to add more to a story, convey emotions and opinions, teach readers about topics and subtopics, and support claims with reasons (4.W.1.A) Use correct spelling and punctuation in writing, using accurate punctuation and capital letters to begin/end sentences, writing in complete sentences, using capital letters for proper nouns, using commas to make long sentences clear, and using periods to fix run-on sentences (4.W.1.C.b) Report on a topic or tell a story and use descriptive and relevant details to support point in speaking, making reasoning clear to the listener (4.W.2.B.b) Participate in a range of collaborative discussions and see to understand diverse perspectives within the group (4.SL.3.A.a) | <ul style="list-style-type: none"> Understand what is written in a text, noticing several main ideas in a text, pointing to ideas that thread throughout a text, sorting details and weighing importance, and keeping opinions separate from ideas in the text (5.R.1.A.a-c) Integrate and evaluate information from a variety of digital and print formats and work to understand the author's message (5.R.4.A.a/c) Read at a smooth pace with appropriate expression, noticing and acting upon punctuation cues in a complex sentence and using voice to reflect what happens next in text and what characters think, feel, and experience (5.FR.4.A.a) Determine theme and summarize the text (5.R.2.A.b) Use multiple decoding strategies to solve tricky words, using definitions or synonyms found in text, substituting similar words and rereading for meaning, and using prefixes, suffixes, and root words (5.RF.3.A.a/b) Use correct spelling and punctuation in writing, using accurate punctuation and capital letters to begin/end sentences, writing in complete sentences, using capital letters for proper nouns, using commas to make long sentences clear, and using periods to fix run-on sentences (5.W.1.C.b) Write well-developed opinion, informative, and narrative pieces (5.W.2.A-C) Participate effectively in a range of collaborative discussions and see to understand diverse perspectives within the group (5.SL.1.A.b/d) Speak clearly and at an appropriate pace and adapt the tone, nuances, and connotations of my words to affect meaning (5.SL.3.A.a) Report on a topic or tell a story and use descriptive and relevant details to support points in speaking, making reasoning clear to the listener (5.SL.4.A.b/c) | <ul style="list-style-type: none"> Read and analyze a variety of grade-appropriate text types, genres, and authors (6.RL.1.A) Summarize and describe how key details, like characters, setting, and events, convey, support, and elaborate on central ideas or themes in texts (6.RL.1.D) Analyze how authors use craft, language, structure (i.e. sentences, scenes, chapters, stanzas), and style elements in response to audience, genre, meaning, purpose, and task (6.RL.2.A) Determine the evidence and validity of reasoning of specific claims within a text (6.RI.2.D) Acquire and use language in writing and speaking appropriate to audience, genre, meaning, purpose, and task (6.W.2.3.A) Write well-organized, informative, and narrative pieces in response to a prompt, task, or text (6.W.2.A.a/b) Construct well-crafted arguments in response to a prompt, task, or text with a stated claim and supporting evidence (6.W.2.A.c) Cite specific textual evidence to support inferences, conclusions, judgments, and ideas (6.W.2.A.c) Follow rules for collegial discussions and decision making, track progress toward specific goals and deadlines, and define individual roles as needed (6.SL.1.A) Delineate a speaker's argument and claims in order to pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion (6.SL.1.B) Review the key ideas expressed by a speaker, including those presented in diverse media, and demonstrate understanding of multiple perspective through reflection and paraphrasing (6.SL.1.C) Speak clearly, audibly, and to the point using conventions of language as appropriate to task, purpose, and audience, when presenting - including appropriate volume (6.SL.2.A) Position body to face the audience when speaking, making eye contact with listeners at various intervals using gestures to communicate a clear viewpoint (6.SL.2.B) Plan and deliver appropriate presentations based on the task, audience, and purpose, with multimedia components, to clarify claims and findings and emphasize significant points (6.SL.2.C) | <ul style="list-style-type: none"> Read and analyze a variety of grade-appropriate text types, genres, and authors (7.RL.1.A) Analyze how authors use craft, language, structure, and style (i.e. rhyme, repetition) elements in response to audience, genre, meaning, purpose, and task (7.RL.2.A) Determine how claims in texts are supported with sound, relevant, and sufficient evidence (7.RI.2.D) Summarize and analyze how key details (i.e. characters, setting) interact, support, and elaborate on two or more central ideas or themes in texts free of opinion (7.RI.1.D) Acquire and use language in writing and speaking appropriate to audience, genre, meaning, purpose, and task (7.W.2.3.A) Write well-organized, informative, and narrative pieces in response to a prompt, task, or text that describe, explain, elaborate, clarify, and convey experiences and ideas (7.W.2.A.a/b) Construct well-crafted arguments in response to a prompt, task, or text with a clearly stated claim, sufficient and relevant evidence and opposing viewpoints and counterpoints (7.W.2.A.c) Cite several pieces of specific textual evidence to support inferences, conclusions, judgments, and ideas (7.W.2.A.c) Demonstrate understanding of standard grammar rules, parts of speech, and conventions (punctuation, spelling) in order to vary language and sentence types for meaning, interest, and style (7.W.3.A.c) Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed (7.SL.1.A) Delineate a speaker's argument and claims, evaluating reasoning in order to pose questions that elicit elaboration, and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed (7.SL.1.B) Acknowledge new information expressed by others, including those presented in diverse media and, when warranted, modify their own views (7.SL.2.A) Speak clearly, audibly, and to the point using conventions of language as appropriate to task, purpose, and audience, when presenting - including appropriate volume at an understandable pace (7.SL.2.B) Plan and deliver appropriate presentations based on the task, audience, and purpose, with multimedia components, to clarify claims and findings and emphasize significant points (7.SL.2.C) | <ul style="list-style-type: none"> Read and analyze a variety of grade-appropriate text types, genres, and authors (8.RL.1.A) Analyze how authors use key details (i.e. characters, setting, individuals) connect, distinguish, reveal, support, and elaborate two or more central ideas or themes in texts free of opinion (8.RL.1.D) Analyze how different authors across texts use craft (i.e. analogies, allusions), language, structure, and style elements in response to audience, genre, meaning, purpose, and task (8.RL.2.A&D) Determine how claims in texts are supported with sound, relevant, and sufficient evidence and note where evidence is irrelevant or weakens the quality of the argument (8.RI.2.D) Write well-organized, informative, and narrative pieces in response to a prompt, task, or text that describe, explain, elaborate, clarify, and convey experiences and ideas (8.W.2.A.a/b) Construct well-crafted arguments in response to a prompt, task, or text with a clearly stated claim from opposing viewpoints and counterpoints, with sufficient and relevant evidence, and organization and language features that enhance the argument (8.W.2.A.c) Demonstrate understanding of standard grammar rules, parts of speech, and conventions (punctuation, spelling) in order to vary language and sentence types for meaning, interest, and style (8.W.3.A.c) Cite several pieces of specific textual evidence to most strongly support inferences, conclusions, judgments, and ideas (8.W.2.A.c) Follow rules of collegial discussions and decision making, tracking progress toward specific goals and deadlines (8.SL.1.A) Delineate a speaker's argument and claims, evaluating reasoning and sufficiency of evidence in order to pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, ideas (8.SL.1.B) Acknowledge new information expressed by others, including those presented in diverse media and, when warranted, quality or justify their own views in light of evidence presented (8.SL.1.C) Speak clearly, audibly, and to the point, using conventions of language appropriate to task, purpose, and audience, presenting with appropriate volume, clear articulation, and accurate pronunciation at an understandable pace (8.SL.2.A) Make consistent eye contact with a range of listeners when speaking, using effective gestures to communicate a clear viewpoint and engage listeners (8.SL.2.B) Plan and deliver appropriate presentations based on task, audience, and purpose, integrating multimedia into presentations to clarify information, strengthen claims and evidence, and add interest (8.SL.2.C) |

Science & Engineering

K-8 Priority Standards & Skills

Kindergarten

- Ask questions, make observations, and gather information about a situation people want to change
- Define a simple problem that can be solved through the development of a new or improved object or tool
- Make observations to determine the effect of sunlight on Earth's surface
- Use and share observations of local weather conditions to describe patterns over time
- Use observations to describe patterns of what plants and animals (including humans) need to survive
- Make qualitative observations of the physical properties of objects (i.e. size, shape, color, mass)
- Compare the effects of different strengths or different directions of pushes and pulls on the motion of an object
- Describe ways to change the motion of an object, like how to cause an object to go slower, go faster, go farther, change direction, and/or stop

Grade 1

- Ask questions, make observations, and gather information about a situation people want to change (1.ETS1.A.1)
- Define a simple problem that can be solved through the development of a new or improved object or tool (1.ETS1.A.1)
- Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate (1.PS4.A.1)
- Design a solution to a human problem by mimicking how plants and animals use their external parts to help them survive, grow, and meet their needs (1.LS1.A.1)
- Use observations of the sun, moon, and stars to describe pattern that can be predicted (1.ESS1.A.1/2)
- Identify patterns indicating relationships between observed weather data and weather phenomena, like temperature, types of clouds, and types and amounts of precipitation (1.ESS2.D.1)
- Make observations to construct an evidence-based account to show that young plants and animals are like, but not exactly like, their parents (1.LS3.A.1)

Grade 2

- Obtain information to identify where water is found on Earth and that it can be solid or liquid (2.ESS2.C.1)
- Compare multiple design solutions to slow or prevent wind or water from changing the shape of land (2.ESS2.A.1)
- Ask questions, make observations, and gather information about a situation people want to change (2.ETS1.A.1)
- Define a simple problem that can be solved through the development of a new or improved object or tool (2.ETS1.A.1)
- Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties (2.PS1.A.1)
- Plan and conduct an investigation on the growth of plants when growing conditions are altered (i.e. dark versus light, water versus no water) (2.LS2.A.1)
- Predict and conduct an investigation that shows that water can change from a liquid to a solid (freeze) and back again (melt), or from a liquid to a gas (evaporation) and back again (condensation) as a result of temperature changes (3.PS1.A.1)

Grade 3

- Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season (3.ESS2.D.1)
- Obtain and combine information to describe climates in different regions of the world (3.ESS2.D.2)
- Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem (3.ETS1.B.1)
- Develop a model to compare and contrast observations on the life cycles of different plants and animals (3.LS1.B.1)
- Construct claims to support that some characteristics of organisms are inherited from parents and some are influenced by the environment (3.LS3.A.1)
- Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages to surviving and finding mates (3.LS3.B.1)
- Construct an argument with evidence that in a particular ecosystem some organisms - based on structural adaptations or behaviors - can survive well, some survive less well, and some cannot (3.LS3.C.1)
- Plan and conduct an investigation to determine the case and effect relationship of electric or magnetic interactions between two objects not in contact with each other (2.PS2.B.1)

Grade 4

- Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time (4.ESS1.C.1)
- Analyze and interpret data from maps to describe patterns of Earth's features (4.ESS2.B.1)
- Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem (4.ETS1.B.1)
- Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction (4.LS1.A.1)
- Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to information in different ways (4.LS1.D.1)
- Develop a model of waves to describe patterns in terms of amplitude or wavelength and that waves can cause objects to move (4.PS4.A.1)
- Provide evidence to construct an explanation of an energy transformation (i.e. temperature change, light, sound, motion, and magnetic effects) (4.PS3.B.1)
- Apply scientific ideas to design, test, and refine a device that converts energy from one form to another (4.PS3.B.2)

Grade 5

- Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky (5.ESS1.B.1/2)
- Develop a model to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact with each other (5.ESS2.A.1)
- Describe and graph the amounts and percentages of total water and fresh water in various reservoirs to provide evidence of the distribution of water on Earth (5.ESS2.C.1)
- Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment (5.ESS3.C.1)
- Pose scientific questions, design and conduct investigations to answer them, collect, and organize data (measurements and observations), and use evidence from investigations to support claims (5.ETS1.C.1)
- Compare and contrast the major organs/organ systems, like reproductive, digestive, transport/circulatory, that perform similar functions for animals belonging to different vertebrate classes (5.LS1.A.1)
- Support an argument that plants get the materials (i.e. carbon dioxide, water, sunlight) they need for growth chiefly from air and water (5.LS1.C.1)
- Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment (5.LS2.B.1)
- Develop a model to describe that matter is made of particles too small to be seen (5.PS1.A.1)
- Measure and graph quantities to provide evidence that the total weight of matter is conserved regardless of heating, cooling, or missing of substances (5.PS1.A.2)

Grade 6

- Understand the organization of the Periodic Table of Elements and how this relates to the element's chemical and physical properties (6-8.PS1.A.1)
- Classify changes in matter as physical and/or chemical (6-8.PS1.A.2)
- Compare and contrast solids, liquids, and gases focusing on properties, structure, and behavior (6-8.PS1.A.4)
- Classify different types of motion in terms of speed, velocity, and acceleration (Newton's laws) (6-8.PS2.A.2)
- Determine that forces result from direct contact or action over a distance (gravitational, electrical, magnetic) (6-8.PS2.B.1)
- Conclude what affects the size of electrostatic and magnetic forces (distance, current, magnetic, and charge) (6-8.PS2.B.3)
- Explain how energy transforms from one form to another (potential and kinetic energy) (6-8.PS3.A.1/2)
- Describe how energy transfer thermally, electrically, and mechanically and the connection to properties of matter (6-8.PS.3/4)
- Describe the properties of waves and compare/contrast the wavelike property of energy in light, sound, and electromagnetic spectrum (6-8.PS4.A.1)

Grade 7

- Explain the ways cells contribute to the function of living organisms (6-8.LS1.A.1)
- Compare structures and functions of unicellular and multicellular organisms (6-8.LS1.A.2)
- Describe the structure and functions of plant and animal cells, includes the major organelles (6-8.LS1.A.3)
- Explain the dynamic relationship between living and nonliving factors in an ecosystem (6-8.LS2.A.1)
- Compare how biotic and abiotic factors interact in an ecosystem (6-8.LS2.A.2)
- Describe the role of producers, consumers, detritivores, and decomposers in food chains and webs (6-8.LS2.B.1)
- Compare asexual and sexual reproduction in various organisms at the cellular level (6-8.LS3.1)
- Investigate changes in population and formulate conclusions about how populations in a community interact (6-8.LS2.C.1)
- Compare and contrast how elements move through a matter cycles and impact other cycles (6-8.LS2.C.1)
- Design a solution: How can people conserve resources? What tools can be used to conserve resources? (6-8.LS2.C.2)
- Explain the method by which living organisms pass traits from one generation to the next (6-8.LS3.2)
- Investigate why organisms change over time in response to their environment (6-8.LS4.B.1)
- Examine how global climate change and human impact affect the future (6-8.ESS3.D1)

Grade 8

- Apply scientific principles to design, construct, and test a device that either minimizes for maximizes thermal energy transfer (6-8.PS3.A.3)
- Examine the solar system and earth/moon/sun cycles and predict motions of celestial bodies like planets, comets, and nebula (6-8.ESS1.A.1)
- Explain how objects in the universe interact and produce various phenomena (6-8.ESS1.A.2)
- Explain how the atmosphere affects life on Earth (6-8.ESS1.A.3)
- Examine how the planets' systems interact over scales and operate over fractions of time; determine how these interactions shaped Earth's history and predict Earth's future (6-8.ESS1.B.1)
- Examine how the properties and movement of bodies of water shape Earth's surface and affect its systems (6-8.ESS2.C.1)
- Predict weather conditions and patterns based on data from maps, satellites, and radar (6-8.ESS2.C.2)
- Examine how global climate change and human impact affect the future (6-8.ESS3.D.1)
- Design a plan to make a positive human impact on our Earth (6-8.ESS3.D.1)

Social Studies

K-8 Priority Standards & Skills

Kindergarten

- Describe examples of needs & wants, scarcity, and opportunity cost within your family and school, learning how and why people make choices (K.E.4.A)
- Read, construct, and use maps of familiar places, like classrooms, home, and school, to learn about places (K.EG.5.A)
- Discuss the roles, rights, and responsibilities of individuals and groups within their communities (K.GS.2.C/D)
- Examine how rules are determined, how decisions are made, and how disputes are resolved within communities (K.GS.2.C/D)
- Describe the character traits and contributions of role models and changemakers within the family/school and people associated with national holidays (K/PC.1.E, K/H.3.C)
- Compare life in the past and present, describing family traditions, customs, cultural heritage, etc. and how your family has changed over time (K.R1.6.A/C, K.H.3.B.b)
- Use visual tools like photos, maps, charts, and drawings to communicate information (K.TS.7.B)
- Ask questions and find answers about a topic, with assistance (K.TS.7.E)

Grade 1

- Describe examples of scarcity & surplus, goods & services, and consumers & producers within the community, examining how they interact with each other (1.E.4.A)
- Read, construct, and use maps that contain symbols, legends, titles, keys, and cardinal directions, with assistance (1.EG.5)
- Examine the rights, roles, and responsibilities of citizens and people in government (1.GS.2.D, 1.PC.1)
- Identify why cities make laws, how individual rights are protected, how disputes are resolved, and how citizens can take an active role in their communities (1.PC.1.D, 1.GS.2.C, 1.RI.6.B)
- Compare and contrast your community from the past to the present, examining cultural, social, and economic changes over time (1.H.3.B, 1.RI.6.C)
- Identify and describe human characteristics, cultural characteristics, and physical characteristics of your community (1.RI.6.A, 1.EG.5.C)
- Ask supporting questions and find answers about social studies topics, with assistance (1.TS.7.E)
- Identify and analyze primary and secondary social studies sources in classroom discussion and with guidance/support (1.TS.7.A.a)
- Create visuals to communicate information (1.TS.7.B)
- Share findings about a social studies topic (1.TS.7.D)

Grade 2

- Examine and give examples of the economic concepts of income, labor, wages, and cost-benefit situations (2.E.4.A/B)
- Identify, construct, and use different types of maps for various purposes (2.EG.5.A)
- Identify, locate, and describe regions of your community, the state, and the world (2.EG.5.B/F/G)
- Identify, locate, and describe the physical characteristics, human characteristics, and cultural characteristics of your region in Missouri and features of the world (2.EG.5.C)
- Describe different modes of communication and transportation, identifying their advantages and disadvantages, and explaining how innovation and technology have impacted how people communicate, travel, work, and live (2.EG.5.E)
- Explain the branches and functions of government, identifying the responsibilities and powers of officials at various levels and branches of government (2.GS.2)
- Compare the culture and people in our community across time periods (2.H.3.A)
- Explain how laws and rules are made and changed, how individual rights are protected, and how being an active and informed citizen makes a difference within a community (2.PC.1)
- Explore how various historical figures have influenced progress and have impacted human, physical, and/or cultural characteristics of a region in some way (2.PC.1.E, 2.H.3.C)

Grade 3

- Define, compare, and contrast private goods and public goods and services and how they relate to how taxes and generated and used in support of local & state governments and/or economies (3.E.4.A/C)
- Describe how people of MO are affected by, depend upon, adapt to, and change their physical environments in the past and present (3.EG.5.D)
- Identify, describe, and compare the physical, human, geographic, and cultural characteristics of MO with other states and nations (3.EG.5.F.b, 3.EG.6.A, 3.RI.6)
- Describe the importance, impact, causes, and consequences of the Louisiana Purchase, the Lewis & Clark Expedition, westward expansion, and the Dred Scott decision for different groups (Native Americans, European immigrants, and enslaved/free African Americans) in Missouri (3.H.3.A-F)
- Examine the changing roles, cultural interactions, and conflicts between Native Americans, European immigrants, enslaved & free African Americans, women, and others throughout MO history (3.H.3.B, 3.RI.6.E)
- Explain the structure, function, and foundation of state government (3.PC.1, 3.GS.A/C)
- Explain how laws are made and changed (3.PC.1, 3.GS.A/C)
- Explain how individual rights are protected and how the common good is balanced against individual rights (3.PC.1, 3.GS.A/C)
- Explain how citizens actively participate (3.PC.1, 3.GS.A/C)
- Identify and describe the character traits, civic attitudes, and significance of influential Missourians who have made contributions to our state and national heritage (3.PC.1.E, 3.H.3.C)

Grade 4

- Identify and compare diverse physical and human geographic characteristics of specific regions within the nation and analyze how their characteristics affect people who live there (4.EG.5)
- Construct and interpret historical and current maps, using geography to interpret the past and predict the future consequences as appropriate to topics or eras discussed (4.EG.5.A/G)
- Describe the causes and consequences of the discovery, exploration, and early settlement of America by Europeans as they pertain to reasons the African peoples were enslaved and brought to the Americas, the migrations of Native Americans, and westward expansion (4.H.3.A/F)
- Examine roles, cultural interactions, and conflicts among Native Americans, Immigrants, African Americans, women, and others from early migration to 1800 (4.RI.6.H.3)
- Examine ways by which citizens have effectively voiced opinions, monitored government, and brought about change both past and present (4.PC.1)
- Explain the important principles, historical contexts, and major purposes of the U.S. Constitution, the Declaration of Independence, and the Bill of Rights, and how each document affected people in the United States (4.PC.1, 4.H.3)
- Explain the causes of the American Revolution, including perspectives of the patriots, loyalists, Native Americans, African Americans, and European allies (4.H.3)
- Explain how the purpose and roles of government were debated in early settlements and analyze the resolutions of these disputes by courts or other legitimate authorities in US history (4.GS.2/3)

Grade 5

- Identify political, economic, and social causes and consequences of WWI, WWII, the Great Depression, the Cold War, and other major political developments and reform between 1800-2000 (5.H.3, 5.RI.6.E)
- Explore how economic, political and social rights and roles of individuals and groups have changes over time in the United States in conjunction with key events between 1800-2000 (5.H.3, 5.RI.6.E)
- Apply the principles of the Declaration of Independence, the U.S. Constitution, and the Bill of Rights to historical time periods being studied and to current events (5.PC.1)
- Analyze how authoritative decisions are made, enforced, and interpreted by the federal government across historical time periods and current events (5.GS.2.C)
- Distinguish between power and functions of local, state, and national government in the past and present (5.GS.2.D)
- Analyze ways by which citizens have effectively voiced opinions, monitored government, and brought about change both past and present (5.PC.1)
- Describe the impact of migration on immigrants and the United States between 1800-2000 (5.H.3.A)
- Examine cultural interactions and conflicts among Native Americans, European Americans, and African Americans between 1800-2000 (5.H.3.B)
- Explain factors, past and present, that influence changes in our nation's economy (5.E.4.D)

Grade 6

- Develop mental models of what the world looks like physically and culturally (6-8.GEO.1.G.A)
- Examine how people connect and interact with the various forms of governments around the world (6-8.GEO.2.PC&CC)
- Practice the historical thinking skills of perspective taking, comparison and contrast, and change over time (6-8.GEO.2.PC/CC)
- Craft arguments using claim and evidence, with reasoning to support thinking and positions (6-8.GEO.2.PC/CC)
- Compare, and contrast places, cultures, peoples, and governments around the world to those in Kirkwood and St. Louis, MO (6-8.GEO.2.PC/CC)
- Evaluate the impact of individual changemakers on their communities, countries, regions, and the world
- Identify text, context, and subtext of primary sources
- Identify and apply multiple perspectives in civil discourse to support a final conclusion using credible sources
- Take informal action to address personal, societal, or global issues

Grade 7

- Study the history of the United States from early settlements in North America through the conclusion of American Civil War/ Reconstruction
- Review how maps and globes reflect history, politics, and economics (6-8.AH.1.G.A)
- Research factors that motivated Europeans to colonize the New World and resulting consequences of that migration (6-8.AH.2)
- Infer causes and agents of revolution (i.e. legislation, protests, rebellion) (6-8.AH.3)
- Evaluate how government systems are created, structured, maintained, and changed (6-8.AH.3)
- Identify and evaluate the risks and rewards of migration and of a nation expanding its influence (6-8.AH.1; 6-8.AH.4/5)
- Analyze social, political, and economic opportunities and challenges spurred by innovation (6-8.AH.1; 6-8.AH.4/5)
- Debate the relationship that should exist between an individual and their government
- Examine how the meaning of citizenship has evolved over time
- Identify and apply multiple perspectives in civil discourse to support a final conclusion using credible sources

Grade 8

- Build a conceptual understanding of change and continuity while tracing the impact of ancient cultures on modern world issues
- Examine human origins, ancient civilizations, the rise of empires, and the development of world religions and networks of exchange and trade
- Identify how geography has impacted people, places, regions, and cultures throughout history
- Debate what is means for a society to be "civilized"
- Hypothesize as to why some societies throughout history progressed faster than others and theorize as to why some societies were successful and other failed
- Examine how belief systems have influenced action throughout history (i.e. building of empires, migration, conquest, innovation) and unite and/or divide people
- Explore and debate the relationship between technology and progress
- Understand disciplinary vocabulary and apply it to concepts
- Identify and apply multiple perspectives in civil discourse to support a final conclusion using credible sources
- Take informed action to address personal, societal, or global issues