

Grade	Subject	Topic	Key Learning Target -- READING
3	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language and to make simple inferences.
3	Reading	Reading Comprehension	Ask and answer questions to demonstrate understanding of a text , referring explicitly to the text as the basis for the answers.
3	Reading	Variety of Literary Works	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.
3	Reading	Reading Comprehension	Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g. where, when, why, and how key events occur)
3	Reading	Literary Elements and Techniques	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events. Compare and contrast themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).
4	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters.
4	Reading	Reading Comprehension	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
4	Reading	Literary Elements and Techniques	Determine a theme of a story, drama, or poem. Determine the main idea of a text and explain how it is supported by key details.
4	Reading	Reading Comprehension	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
4	Reading	Literary Elements and Techniques	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.
5	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
5	Reading	Literary Elements and Techniques	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.Determine a theme of a story, drama, or poem. Determine the main idea of a text and explain how it is supported by key details.
5	Reading	Literary Elements and Techniques	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. (e.g., how characters interact) Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. Determine a theme of a story, drama, or poem. Determine the main idea of a text and explain how it is supported by key details.
5	Reading	Reading Comprehension	Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
5	Reading	Literary Elements and Techniques	Compare contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. Differentiate among the literary elements of plot, character, and setting .

Grade	Subject	Topic	Key Learning Target -- READING
6	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone.
6	Reading	Reading Comprehension	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
6	Reading	Literary Elements and Techniques	Determine a central idea of a text and how it is conveyed through particular details; provide an objective summary of the text distinct from personal opinions or judgments.
6	Reading	Reading Comprehension	Integrate information presented in a different media or formats (e.g. visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
6	Reading	Literary Elements and Techniques	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. * Analyze how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g. through examples or anecdotes). *Compare and contrast texts in different forms or genres (e.g. stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.
7	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, analyze the impact of rhymes and other repetitions of sounds (i.e. alliteration) on a specific verse or stanza of a poem or section of a story or drama.
7	Reading	Reading Comprehension	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
7	Reading	Literary Elements and Techniques	Determine two or more central ideas of a text and analyze its development over the course of the text, provide an objective summary of the text.
7	Reading	Reading Comprehension	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.
7	Reading	Literary Elements and Techniques	Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use of alter history. *Analyze how particular elements of a story or drama interact (e.g. how setting shapes the characters or plot).
8	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
8	Reading	Reading Comprehension	Cite the textual evidence that most strongly that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
8	Reading	Literary Elements and Techniques	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
8	Reading	Reading Comprehension	Delineate and evaluate the argument specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
8	Reading	Variety of Literary Works	Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, or traditional stories, including describing how the material is rendered new. *Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision. *Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.

Grade	Subject	Topic	Key Learning Target -- MATH
3	Math	Algebra	Represent and solve problems involving the four operations and identify and explain patterns in arithmetic
3	Math	Number Sense - Base 10	Use place value understanding and properties of operations to perform multi-digit arithmetic
3	Math	Number Sense - Fractions	Recognize, compare and model fractional situations
3	Math	Measurement	Solve problems involving measurement and estimation of time, volume, mass, perimeter and area
3	Math	Data	Read and interpret data expressed in a variety of forms
3	Math	Geometry	Identify, describe and sketch 2 dimensional and 3 dimensional shapes
4	Math	Algebra	Represent and solve problems involving the four operations, characteristics/relationships of numbers, and identify and explain patterns in arithmetic
4	Math	Number Sense - Base 10	Generalize place value understanding for multi-digit whole numbers and use properties of operations to perform multi-digit arithmetic
4	Math	Number Sense - Fractions	Read, write, recognize, order, compare and model fractional situations
4	Math	Measurement	Solve problems involving measurement and estimation of time, volume, mass, perimeter, area and angles; and convert measurements from larger to smaller units
4	Math	Data	Read, interpret and graph data expressed in a variety of forms
4	Math	Geometry	Identify, describe and sketch 2 dimensional and 3 dimensional shapes
5	Math	Algebra	Represent and solve problems involving the four operations, characteristics/relationships of numbers, and identify and explain patterns in arithmetic
5	Math	Number Sense - Base 10	Understand the place value system and perform operations with multi-digit whole numbers and with decimals to the hundredths
5	Math	Number Sense - Fractions	Read, write, recognize, order, compute, compare and model fractional situations
5	Math	Measurement	Solve problems involving measurement and estimation of time, volume, mass, perimeter, area, volume and angles; and convert like measurement units within a given measurement system
5	Math	Data	Read, interpret, make predictions and graph data expressed in a variety of forms
5	Math	Geometry	Identify, classify, describe, sketch, and solve problems with 2 dimensional and 3 dimensional shapes

Grade	Subject	Topic	Key Learning Target -- MATH
6	Math	The Number System	Read, write, model, and solve problems involving the four operations using whole numbers and decimals (+,-,x), fractions (+,-) and percents
6	Math	Ratios and Proportional Relationships	Identify, express and solve problems using ratios and proportions
6	Math	Algebra	Write, evaluate and solve problems involving algebraic expressions and equations
6	Math	Measurement	Solve problems involving measurement, perimeter, area, volume, scale drawings, and coordinate plane
6	Math	Data, Statistics and Probability	Read, interpret, compare, make predictions and graph data expressed in a variety of forms
6	Math	Geometry	Identify, classify, describe, sketch, and solve problems with regular and irregular 2 dimensional and 3 dimensional shapes
7	Math	The Number System	Read, write, model, and solve problems involving the four operations using integers and decimals, fractions and percents
7	Math	Ratios and Proportional Relationships	Use ratios and proportions to model and solve problems
7	Math	Algebra	Write, evaluate, analyze, simplify and solve problems involving algebraic expressions and equations
7	Math	Measurement	Solve problems involving measurement, perimeter, area, volume, unit conversions, scale drawings, and coordinate plane
7	Math	Data, Statistics and Probability	Read, interpret, compare, make predictions and graph data expressed in a variety of forms
7	Math	Geometry	Identify, classify, describe, sketch, and solve problems with regular and irregular 2 dimensional and 3 dimensional shapes
8	Math	The Number System	Read, write, model, and solve problems involving the four operations using rational numbers, exponents, roots, decimals , fractions and percents
8	Math	Ratios and Proportional Relationships	Use ratios and proportions to describe problem situations, model and solve problems
8	Math	Algebra	Write, evaluate, analyze, simplify and solve problems involving algebraic expressions and equations
8	Math	Measurement	Solve problems involving measurement, perimeter, area, volume, scale drawings, and coordinate plane
8	Math	Data, Statistics and Probability	Read, interpret, compare, analyze, make predictions and graph data expressed in a variety of forms
8	Math	Geometry	Identify, classify, describe, sketch, and solve problems with regular and irregular 2 dimensional and 3 dimensional shapes

Grade	Subject	Topic	Key Learning Target -- SCIENCE
3	Science	Experimental Design	Conduct experiments to test hypothesis and modify experimental design based on interpreting charts and graphs generated from observations.
3	Science	Data Interpretation	Organize, contextualize, and interpret experimental data in order to identify patterns to draw conclusions about experimental design as well as to describe physical phenomenon.
3	Science	Impact of Science on Society/Technology	Understand and identify the ways that science and technology impact the environment, societies and individual lives.
3	Science	Physical Science	Water and the Water Cycle, Earth Materials and their Uses, Sound, Earth, Sun, Moon and Stars
3	Science	Life Science	Cycles of Living Things
4	Science	Experimental Design	Conduct experiments to test hypothesis and modify experimental design based on interpreting charts and graphs generated from observations.
4	Science	Data Interpretation	Organize, contextualize, and interpret experimental data in order to identify patterns to draw conclusions about experimental design as well as to describe physical phenomenon.
4	Science	Impact of Science on Society/Technology	Understand and identify the ways that science and technology impact the environment, societies and individual lives.
4	Science	Physical Science	Chemical Testing, Electricity and Magnetism, Earth Features and Changes
4	Science	Life Science	Human Body: Forms and Function
5	Science	Experimental Design	Conduct experiments to test hypothesis and modify experimental design based on interpreting charts and graphs generated from observations.
5	Science	Data Interpretation	Organize, contextualize, and interpret experimental data in order to identify patterns to draw conclusions about experimental design as well as to describe physical phenomenon.
5	Science	Impact of Science on Society/Technology	Understand and identify the ways that science and technology impact the environment, societies and individual lives.
5	Science	Physical Science	Time and Motion, Levers, Pulleys and Machines, Energy Resources
5	Science	Life Science	Microorganisms and Other Small Things

Grade	Subject	Topic	Key Learning Target -- SCIENCE
6	Science	Experimental Design	Use an understanding of the variable, constant, and control group to set up and modify experiments that test hypothesis through the analysis observations organized in data charts and graphs.
6	Science	Data Interpretation	Analyze patterns in data collected to evaluate the relationship between the constant and variable in an experiment and identify possible sources of experimental error.
6	Science	Impact of Science on Society/ Technology	Analyze the impact that technology has on the physical world and society using multiple sets of data and understand how sound scientific findings impact decisions made by society.
6	Science	Earth Science	Earth Resources, The Changing Earth, Rocks and Geological Time, Climate and Weather
6	Science	Space Science	Earth in Space
7	Science	Experimental Design	Use an understanding of the variable, constant, and control group to set up and modify experiments that test hypothesis through the analysis observations organized in data charts and graphs.
7	Science	Data Interpretation	Analyze patterns in data collected to evaluate the relationship between the constant and variable in an experiment and identify possible sources of experimental error.
7	Science	Impact of Science on Society/ Technology	Analyze the impact that technology has on the physical world and society using multiple sets of data and understand how sound scientific findings impact decisions made by society.
7	Science	Macro biology	Studying people scientifically, Ecology, Evolution
7	Science	Microbiology	Cells structure and function, Genetics
8	Science	Experimental Design	Use an understanding of the variable, constant, and control group to set up and modify experiments that test hypothesis through the analysis observations organized in data charts and graphs.
8	Science	Data Interpretation	Analyze patterns in data collected to evaluate the relationship between the constant and variable in an experiment and identify possible sources of experimental error.
8	Science	Impact of Science on Society/ Technology	Analyze the impact that technology has on the physical world and society using multiple sets of data and understand how sound scientific findings impact decisions made by society.
8	Science	Chemistry	Properties of matter, Materials science, Water
8	Science	Physics	Motion and forces, Work, Energy and Efficiency

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards
3	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language and to make simple inferences.	<ul style="list-style-type: none"> -- 1.3.01 Determine the meaning of an unknown word using knowledge of common prefixes, suffixes, and word roots (see Roots and Affixes List) (e.g., use knowledge of the prefix dis- to determine the meaning of disrespect). -- 1.3.02 Identify the word base of familiar words with affixes from Roots and Affixes list (e.g., misspelled, unfinished). -- 1.3.07 Determine the meaning of unknown words using within-sentence clues -- 1.3.08 Determine the meaning of an unknown word using words, sentences, and cross-sentence clues -- 1.3.09 Use synonyms to define words -- 1.3.10 Use antonyms to define words
3	Reading	Reading Comprehension	Ask and answer questions to demonstrate understanding of a text , referring explicitly to the text as the basis for the answers.	-- 1.3.17 Identify explicit and implicit main ideas.
3	Reading	Variety of Literary Works	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.	<ul style="list-style-type: none"> -- 1.3.21 Distinguish the main ideas and supporting details in any text. -- 1.3.22 Identify the main idea of a selection when it is not explicitly stated (e.g., by choosing the best alternative title from among several suggested for a given passage).
3	Reading	Reading Comprehension	Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g. where, when, why, and how key events occur)	<ul style="list-style-type: none"> -- 1.3.24 Draw inferences, conclusions, or generalizations about text, and support them with textual evidence and prior knowledge. -- 1.3.26 Draw conclusions from information in maps, charts, and graphs.
3	Reading	Literary Elements and Techniques	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events. Compare and contrast themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).	<ul style="list-style-type: none"> -- 2.3.01 Differentiate among the literary elements of plot, character, and setting. -- 2.3.02 Identify main and supporting characters -- 2.3.03 Identify events important to the development of the plot -- 2.3.06 Explain outcomes using the following literary elements: problem/conflict, resolution.

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards
4	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters.	<ul style="list-style-type: none"> -- 1.4.01 Determine the meaning of an unknown word using knowledge of common prefixes, suffixes, and word roots (see Roots and Affixes list) (e.g., using knowledge of the suffix –ish to determine the meaning of foolish). -- 1.4.02 Identify the word base of familiar words with affixes from Roots and Affixes list (e.g., precooked, realistic). -- 1.4.04 Determine the meaning of an unknown word using word, sentence, and cross-sentence clues.
4	Reading	Reading Comprehension	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	<ul style="list-style-type: none"> -- 1.4.14 Identify explicit and implicit main ideas. -- 1.4.17 Determine the answer to a literal or simple inference question regarding the meaning of a passage. -- 1.4.22 Draw inferences, conclusions, or generalizations about text, and support them with textual evidence and prior knowledge.
4	Reading	Literary Elements and Techniques	Determine a theme of a story, drama, or poem. Determine the main idea of a text and explain how it is supported by key details.	<ul style="list-style-type: none"> -- 1.4.18 Distinguish the main ideas and supporting details in any text. -- 1.4.19 Identify the main idea of a selection when it is not explicitly stated (e.g., by choosing the best alternative title from among several suggested for a given passage).
4	Reading	Reading Comprehension	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	<ul style="list-style-type: none"> -- 1.4.24 Draw conclusions from information in maps, charts, graphs, and diagrams.
4	Reading	Literary Elements and Techniques	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.	<ul style="list-style-type: none"> -- 1.4.16 Make comparisons across reading passages (e.g., topics, story elements). -- 2.4.01 Differentiate among the literary elements of plot, character, setting, and theme. -- 2.4.02 Distinguish between main and supporting characters. -- 2.4.03 Identify events important to the development of the plot and subplot. -- 2.4.07 Explain outcomes using the following literary elements: rising action, climax. -- 2.4.09 Determine character motivation. -- 2.4.10 Determine the causes of characters' actions (other than motivation).

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards
5	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	<p>-- 1.5.01 Determine the meaning of an unknown word using knowledge of prefixes, suffixes, and word roots (see Roots and Affixes list) (e.g., using knowledge of the suffix –ian to determine the meaning of guardian).</p> <p>-- 1.5.02 Determine the meaning of an unknown word using word, sentence, and cross-sentence clues.</p> <p>-- 1.5.04 Use antonyms to define words.</p>
5	Reading	Literary Elements and Techniques	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. Determine a theme of a story, drama, or poem. Determine the main idea of a text and explain how it is supported by key details.	<p>-- 1.5.14 Make comparisons across reading passages (e.g., topics, story elements, themes).</p> <p>-- 1.5.17 Distinguish the main ideas and supporting details in any text.</p> <p>-- 1.5.22 Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge.</p>
5	Reading	Literary Elements and Techniques	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. (e.g., how characters interact) Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. Determine a theme of a story, drama, or poem. Determine the main idea of a text and explain how it is supported by key details.	<p>-- 1.5.18 Identify the main idea of a selection when it is not explicitly stated (e.g., by choosing the best alternative title from among several suggested for a given passage).</p> <p>-- 1.5.19 Summarize a story or nonfiction passage, or identify the best summary.</p>
5	Reading	Reading Comprehension	Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).	-- 1.5.24 Draw conclusions from information in maps, charts, graphs, and diagrams.
5	Reading	Literary Elements and Techniques	Compare contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. Differentiate among the literary elements of plot, character, and setting .	<p>-- 1.5.16 Determine the answer to a literal or simple inference question regarding the meaning of a passage.</p> <p>-- 2.5.01 Differentiate among the literary elements of plot, character, setting, and theme.</p> <p>-- 2.5.02 Identify events important to the development of the plot and subplot.</p> <p>-- 2.5.03 Identify setting, including how setting affects the plot.</p> <p>-- 2.5.07 Recognize points of view in narratives (e.g., first person).</p> <p>-- 2.5.09 Determine character motivation.</p> <p>-- 2.5.10 Determine the causes of characters’ actions (other than motivation).</p>

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards
6	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone.	<ul style="list-style-type: none"> -- 1.6.01 Determine the meaning of an unknown word or content-area vocabulary using knowledge of prefixes, suffixes, and word roots (see Roots and Affixes list). -- 1.6.02 Given words that are spelled alike, identify them as homonyms. -- 1.6.03 Determine the meaning of an unknown word using word, sentence, and cross-sentence clues. -- 1.6.04 Determine the connotation of a word using word, sentence, and cross-sentence clues. -- 1.6.05 Use synonyms and antonyms to define words. -- 1.6.06 Determine the meaning of a word in context when the word has multiple meanings.
6	Reading	Reading Comprehension	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	<ul style="list-style-type: none"> -- 1.6.07 Make and verify predictions based on prior knowledge and text. -- 1.6.08 Identify probable outcomes or actions. -- 1.6.09 Identify the structure and format of text, including graphics and headers (e.g., persuasive, informational).
6	Reading	Literary Elements and Techniques	Determine a central idea of a text and how it is conveyed through particular details; provide an objective summary of the text distinct from personal opinions or judgments.	<ul style="list-style-type: none"> -- 1.6.12 Identify explicit and implicit main ideas. -- 1.6.15 Distinguish the main ideas and supporting details in any text. -- 2.6.02 Explain how plot, setting, character, and theme contribute to the meaning of a literary selection.
6	Reading	Reading Comprehension	Integrate information presented in a different media or formats (e.g. visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.	<ul style="list-style-type: none"> -- 1.6.10 Use information in charts, graphs, diagrams, maps, and tables to help understand a reading passage. -- 1.6.16 Summarize a story or nonfiction passage, or identify the best summary. -- 1.6.20 Distinguish between fact and opinion. -- 1.6.21 Interpret an image based on information provided in a passage.
6	Reading	Literary Elements and Techniques	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. * Analyze how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g. through examples or anecdotes). *Compare and contrast texts in different forms or genres (e.g. stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.	<ul style="list-style-type: none"> -- 1.6.19 Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge. -- 1.6.23 Explain how the author's choice of words appeals to the senses, creates imagery, suggests mood, and sets tone. -- 1.6.24 Determine how illustrators use art to express their ideas. -- 2.6.06 Recognize points of view in narratives (e.g., first person). -- 2.6.11 Identify and interpret figurative language or literary devices: (e.g., sensory detail, simile, rhyme, repetition, metaphors, alliteration, personification). -- 2.6.12 Explain how the literary devices (e.g., sensory detail, simile, rhyme, repetition, onomatopoeia, personification) contribute to the meaning of a literary selection. -- 2.6.14 Identify the following subcategories of genres: science fiction, historical fiction, myth or legend, drama, biography/autobiography, short story, poem, fairy tale, folktale, fable, nonfiction, and essay.

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards
7	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, analyze the impact of rhymes and other repetitions of sounds (i.e. alliteration) on a specific verse or stanza of a poem or section of a story or drama.	<ul style="list-style-type: none"> -- 1.7.01 Determine the meaning of an unknown word or content-area vocabulary using knowledge of prefixes, suffixes, and word roots (see Roots and Affixes list). -- 1.7.02 Use etymologies to determine the meanings of words. -- 1.7.03 Determine the meaning of an unknown word using word, sentence, and cross-sentence clues. -- 1.7.04 Determine the connotation of a word using word, sentence, and cross-sentence clues. -- 1.7.05 Use synonyms and antonyms to determine the implied meanings of words. -- 1.7.06 Determine the meaning of a word in context when the word has multiple meanings.
7	Reading	Reading Comprehension	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	<ul style="list-style-type: none"> -- 1.7.07 Make and verify predictions based on prior knowledge and text. -- 1.7.08 Identify the structure and format of text, including graphics and headers (e.g., persuasive, informational, narrative). -- 1.7.09 Use information in charts, graphs, diagrams, maps, and tables to help understand a reading passage. -- 1.7.10 Locate and interpret information found in headings, graphs, and charts.
7	Reading	Literary Elements and Techniques	Determine two or more central ideas of a text and analyze its development over the course of the text, provide an objective summary of the text.	<ul style="list-style-type: none"> -- 1.7.13 Identify cause and effect organizational patterns in fiction and nonfiction. -- 1.7.14 Identify compare and contrast organizational patterns in fiction and nonfiction. -- 1.7.16 Distinguish the main ideas and supporting details in any text.
7	Reading	Reading Comprehension	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.	<ul style="list-style-type: none"> -- 1.7.15 Determine the answer to a literal or simple inference question regarding the meaning of a passage. -- 1.7.17 Summarize a story or nonfiction passage, or identify the best summary. -- 1.7.21 Differentiate between fact and opinion in a persuasive essay or excerpt. -- 2.7.02 Explain how character, theme, conflict, and point of view contribute to the meaning of a literary selection.
7	Reading	Literary Elements and Techniques	Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use of alter history. *Analyze how particular elements of a story or drama interact (e.g. how setting shapes the characters or plot).	<ul style="list-style-type: none"> -- 1.7.11 Compare the content and organization (e.g., themes, topics, text structure, story elements) of various selections. -- 1.7.12 Relate information in the passage to other readings on the same topic. -- 1.7.20 Draw inferences, conclusions, or generalizations about text, and support them with textual evidence and prior knowledge. -- 1.7.23 Explain how the author's choice of words appeals to the senses, creates imagery, suggests mood, and sets tone. -- 2.7.03 Identify the author's message or theme. -- 2.7.05 Recognize points of view in narratives (e.g., first person). -- 2.7.10 Identify literary devices: (e.g., alliteration, imagery, sensory detail, simile, rhyme, repetition, subtle metaphors, alliteration, personification). -- 2.7.11 Explain how the literary devices (e.g., alliteration, imagery, metaphor) contribute to the meaning of a literary selection. -- 2.7.13 Identify various subcategories of genres: science fiction, historical fiction, myth or legend, drama, biography/autobiography, short story, poem, fairy tale, folktale, fable, nonfiction, and essay.

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards
8	Reading	Vocabulary Development	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	<ul style="list-style-type: none"> -- 1.8.01 Determine the meaning of an unknown word or content-area vocabulary using knowledge of prefixes, suffixes, and word roots (see Roots and Affixes list). -- 1.8.02 Use etymologies to determine the meanings of words. -- 1.8.03 Determine the meaning of an unknown word using word, sentence, and cross-sentence clues. -- 1.8.04 Determine the connotation of a word using word, sentence, and cross-sentence clues. -- 1.8.05 Determine the meaning of a word in context when the word has multiple meanings.
8	Reading	Reading Comprehension	Cite the textual evidence that most strongly that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.	<ul style="list-style-type: none"> -- 1.8.06 Make and verify predictions based on prior knowledge and understanding of genres. -- 1.8.07 Clarify an understanding of text by creating outlines, notes, or other visual representations. -- 1.8.08 Use information in charts, graphs, diagrams, maps, and tables to help understand a reading passage.
8	Reading	Literary Elements and Techniques	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.	<ul style="list-style-type: none"> -- 1.8.11 Identify cause and effect organizational patterns in fiction and nonfiction. -- 1.8.12 Identify compare and contrast organizational patterns in fiction and nonfiction.
8	Reading	Reading Comprehension	Delineate and evaluate the argument specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.	<ul style="list-style-type: none"> -- 1.8.13 Identify proposition and support organizational patterns in fiction and nonfiction. -- 1.8.14 Determine the answer to a literal or simple inference question regarding the meaning of a passage. -- 1.8.15 Compare an original text to a summary to determine whether the summary accurately captures the key ideas. -- 1.8.16 Summarize a story or nonfiction passage, or identify the best summary. -- 1.8.20 Differentiate between conclusions that are based on fact and those that are based on opinion. -- 1.8.21 Explain information presented in a nonfiction passage using evidence from the passage.
8	Reading	Variety of Literary Works	Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, or traditional stories, including describing how the material is rendered new. *Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision. *Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.	<ul style="list-style-type: none"> -- 1.8.09 Compare the content and organization (e.g., themes, topics, text structure, story elements) of various selections. -- 1.8.10 Relate information in the passage to other readings. -- 1.8.19 Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge. -- 1.8.22 Use information from a variety of sources to explain a situation or decision or to solve a problem. -- 1.8.24 Determine the author's purpose as represented by the choice of genre, and literary devices employed. -- 2.8.05 Recognize points of view in narratives. (e.g., first person). -- 2.8.10 Identify literary devices: (e.g., figurative language, hyperbole, understatement, symbols, dialogue). -- 2.8.11 Explain how the literary devices (e.g., imagery, metaphor, figurative language dialogue) contribute to the meaning of a literary selection. -- 2.8.13 Identify various subcategories of genres: poetry, drama (comedy and tragedy), science fiction, historical fiction, myth or legend, biography/autobiography, short story, poem, fairy tale, folktale, fable, nonfiction, and essay.

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards		
3	Math	Algebra	Represent and solve problems involving the four operations and identify and explain patterns in arithmetic	Apply properties of operations as strategies to multiply and divide (CORE), Model and apply basic mult. Facts and apply them to related multiples, e.g. $3 \times 4 = 12$, $30 \times 4 = 120$ (6.3.11)	Determine a missing term in a pattern, describe a pattern, and extend a pattern when given a description (8.3.01) Identify arithmetic patterns and explain them using properties of operations (CORE)	Solve 2 step word problems using 4 operations. Represent these problems using equations with a letter standing for an unknown quantity. (CORE, sort of 8.3.04, 8.3.05)
3	Math	Number Sense - Base 10	Use place value understanding and properties of operations to perform multi-digit arithmetic	Read, write, recognize and model equivalent representations of whole #'s and their place values up to 100,000 (6.3.01)	Solve problems and # sentences involving addition and subtraction with regrouping (6.3.09) Fluently add/sub within 1,000 using strategies and algorithms based on place value (CORE)	Order and compare whole #'s up to 10,000 using symbols (<, >, =) and words. (6.3.05)
3	Math	Number Sense - Fractions	Recognize, compare and model fractional situations	Recognize a fraction represented with a pictorial model (6.3.03)	Recognize and generate simple equivalent fractions. Explain why fractions are equivalent, e.g. by using a visual fraction model. (CORE)	Understand a fraction as a # on a # line, represent fractions on a # line diagram (CORE) (6.3.08)
3	Math	Measurement	Solve problems involving measurement and estimation of time, volume, mass, perimeter and area	Select and use appropriate standard units and tools to measure length (to the nearest inch or cm), time (to the nearest minute) and temperature (to the nearest degree) (7.3.02) (CORE)	Solve problems involving elapsed time in compound units (e.g. hours, minutes, days) (7.3.01) (CORE)	Solve problems involving perimeter and area. (Find area of figure when whole and half units are shown within a figure; Find perimeter with given side lengths) (7.3.03, 7.3.04) Relate the two concepts to addition and multiplication (CORE)
3	Math	Data	Read and interpret data expressed in a variety of forms	Determine the mode, given a set of data or graph (10.3.03)	Read and interpret data represented in a pictograph, bar graph, Venn diagram, tally chart or table (10.3.01)	Complete missing parts of a pictograph, bar graph, tally chart or data table for a given set of data (10.3.02) "Draw a bar graph in which each square in the bar graph might represent 5 pets" (CORE)
3	Math	Geometry	Identify, describe and sketch 2 dimensional and 3 dimensional shapes	Identify, describe, and sketch 2D shapes (triangles, squares, rectangles, pentagons, hexagons, octagons) according to the number of sides, length of sides and # of vertices (9.3.01)	Identify, describe and sketch 3D shapes according to their characteristics (faces, edges, vertices) (9.3.02)	Complete missing parts of a pictograph, bar graph, tally chart or data table for a given set of data (10.3.02) "Draw a bar graph in which each square in the bar graph might represent 5 pets" (CORE)

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards		
4	Math	Algebra	Represent and solve problems involving the four operations, characteristics/relationships of numbers, and identify and explain patterns in arithmetic	Multiply and divide to solve word problems (CORE), Model and apply basic mult and division facts and apply them to related multiples, e.g. $3 \times 4 = 12$, $30 \times 4 = 120$ (6.4.12)	Determine a missing term in a pattern, describe a pattern, and extend a pattern when given a description (8.4.01) Generate a number or shape pattern that follows a given rule (CORE)	Solve multistep word problems posed with whole numbers and having whole # answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using an equation with a letter standing for the unknown quantity (CORE, sort of 8.4.06, 8.4.08)
4	Math	Number Sense - Base 10	Generalize place value understanding for multi-digit whole numbers and use properties of operations to perform multi-digit arithmetic	Read, write, recognize and model equivalent representations of whole #'s and their place values up to 1,000,000 (6.4.01) (CORE)	Solve problems and # sentences involving addition and subtraction with regrouping and multiplication (up to 3 digit by 1 digit) (6.4.10) Fluently add/sub multi-digit numbers using standard algorithm, multiply two digit numbers (CORE)	Order and compare whole #'s up to 100,000 (6.4.05) Compare two multi-digit numbers based on meanings of the digits in each place using $<$, $>$, $=$ symbols (CORE)
4	Math	Number Sense - Fractions	Read, write, recognize, order, compare and model fractional situations	Read, write, recognize and model equivalent representations of fractions, divide regions or sets to represent a fraction (6.4.03)	Compare two fractions with different numerators and different denominators (CORE) (Similar to 6.4.07)	Determine the distance between two points on a number line, identify and locate whole numbers, halves, and fourths on a number line (9.4.13, 6.4.08)
4	Math	Measurement	Solve problems involving measurement and estimation of time, volume, mass, perimeter, area and angles; and convert measurements from larger to smaller units	Select and use appropriate standard units and tools to measure length (to the nearest $\frac{1}{2}$ inch or $\frac{1}{2}$ cm), time and temperature (7.4.02)	Solve problems involving elapsed time in compound units (e.g. 1 hour, 40 min) that occur in the same half day (7.4.01)	Solve problems involving perimeter of a polygon with given side lengths and the area of a square, rectangle, or irregular shape composed of rectangles using diagrams, models, and grids or by measuring (7.4.03) Apply the formulas to real world problems (CORE)
4	Math	Data	Read, interpret and graph data expressed in a variety of forms	Determine the mode and range, given a set of data or graph (10.4.03)	Read and interpret data represented in a pictograph, bar graph, line plot, Venn diagram, tally chart, line graph, circle graph or table (10.4.01) (CORE)	Create a pictograph, bar graph, tally chart or data table for a given set of data (10.4.02) "From a line plot find and interpret the difference in length between the largest and smallest specimen" (example from CORE)
4	Math	Geometry	Identify, describe and sketch 2 dimensional and 3 dimensional shapes	Identify, describe, and sketch 2D shapes (triangles, quadrilaterals, pentagons, hexagons, octagons) according to the number of sides, length of sides, # of vertices, and right angles (9.4.01)	Identify, describe and sketch 3D shapes according to their characteristics (faces, edges, vertices) (9.4.02)	Classify 2D 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 angles (CORE) (9.4.08, 9.4.07)

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards		
5	Math	Algebra	Represent and solve problems involving the four operations, characteristics/relationships of numbers, and identify and explain patterns in arithmetic	Solve problems involving descriptions of #'s, including characteristics and relationships (e.g. odd/even, factors/multiples, greater than, less than, square numbers) (6.5.11)	Determine a missing term in a sequence, extend a sequence, and identify errors when given a sequence (8.5.01) Construct and identify a rule that can generate the terms of a given sequence (8.5.02) (CORE)	Solve multistep word problems posed with whole numbers and having whole # answers using the four operations. (CORE) Solve word problems with unknown quantities (8.5.09)
5	Math	Number Sense - Base 10	Understand the place value system and perform operations with multi-digit whole numbers and with decimals to the hundredths	Read, write, recognize and model equivalent representations of whole #'s and their place values up to 100,000,000 (6.5.01)	Solve problems and # sentences involving addition, subtraction, multiplication, and division using whole numbers (6.5.12)	Order and compare whole #'s up to 1,000,000 (6.5.07)
5	Math	Number Sense - Fractions	Read, write, recognize, order, compute, compare and model fractional situations	Read, write, recognize and model equivalent representations of fractions, including improper fractions and mixed numbers (6.5.03)	Order and compare fractions having like or unlike denominators with or without models (6.5.09)	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (CORE) (6.5.14)
5	Math	Measurement	Solve problems involving measurement and estimation of time, volume, mass, perimeter, area, volume and angles; and convert like measurement units within a given measurement system	Select and use appropriate standard units and tools to measure length (to the nearest 1/4 inch or mm), mass/weight, capacity, and angles (7.5.02)	Solve problems involving elapsed time in compound units (e.g. 1 hour, 40 min) (7.5.01)	Solve problems involving the perimeter and area of a triangle, rectangle, or irregular shape using diagrams, models, and grids or by measuring or using given formulas (7.5.03) Apply the formulas to real world problems (CORE)
5	Math	Data	Read, interpret, make predictions and graph data expressed in a variety of forms	Determine the mode, range, median (with odd # of data points) and mean, given a set of data or graph (10.5.03)	Read, interpret, and make predictions from data represented in a pictograph, bar graph, line plot, Venn diagram, chart/table, line graph, circle graph (10.5.01)	Create a pictograph, bar graph, chart/table or line graph for a given set of data (10.5.02) "Make a line plot to display a data set of measurements" (CORE)
5	Math	Geometry	Identify, classify, describe, sketch, and solve problems with 2 dimensional and 3 dimensional shapes	Classify, describe, and sketch 2D shapes (triangles, quadrilaterals, pentagons, hexagons, octagons) according to the number of sides, length of sides, # of vertices, and interior angles(right, acute, obtuse) (9.5.01)	Identify and describe 3D shapes (cubes, spheres, cones, cylinders, prisms, and pyramids) according to their characteristics (faces, edges, vertices) (9.5.02) Measure volume by counting cubic units (CORE)	Classify 2D figures into categories based on their properties. Understand that attributes belonging to a category of 2D figures also belong to all subcategories of that category (All rectangles have 4 rt. Angles and all squares are rectangles, so all squares have four rt angles) (CORE)

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards		
6	Math	The Number System	Read, write, model, and solve problems involving the four operations using whole numbers and decimals (+, -, x), fractions (+, -) and percents	Read, write, recognize, and model equivalent representations of whole numbers and their place values. (6.6.01)	Identify and locate decimals, fractions, and mixed numbers on a number line (6.6.10)	Solve problems involving descriptions of numbers, including characteristics and relationships (e.g. odd/even, factors/multiples, greater than, less than, square numbers, primes) (6.6.11) Find greatest common factors and least common multiples (CORE)
6	Math	Ratios and Proportional Relationships	Identify, express and solve problems using ratios and proportions	Identify and express ratios using appropriate notation (i.e. a/b, a to b, a:b), identify equivalent ratios, and explain ratios that represent a given situation (6.6.18) Use ratio language to describe a ratio relationship between two quantities (CORE)	Determine if figures are similar, and identify relationships between corresponding parts of similar figures (9.6.12)	Solve problems involving proportional relationships, including unit pricing (6.6.19) Solve unit rate problems including those involving unit pricing and constant speed (CORE)
6	Math	Algebra	Write, evaluate and solve problems involving algebraic expressions and equations	Evaluate algebraic expressions with up to two whole number variable values (e.g. evaluate $3m+n+3$ when $m=4$ and $n=2$) (8.6.03) (CORE)	Identify graphs of inequalities on a number line (8.6.07) Find and position integers and other rational #s on a number line (CORE)	Determine a missing term in a sequence, extend a sequence, and construct and identify a rule that can generate the terms of a given sequence (e.g. 3,6,9,... is explained by the rule $3n$, for $n \geq 1$) 8.6.01
6	Math	Measurement	Solve problems involving measurement, perimeter, area, volume, scale drawings, and coordinate plane	Select and use appropriate standard units and tools to measure length, mass/weight, capacity, and angles. (7.6.01)	Solve problems involving unit conversions within the same measurement system for time, length, and weight/mass, including compound units (e.g. 5ft 3in, 2lbs 4oz) (7.6.05)	Solve problems involving perimeter and area of a triangle, parallelogram, or irregular shape using diagrams, models, and grids or by measuring or using given formulas (7.6.02) Apply these techniques in the context of real-world problems (CORE)
6	Math	Data, Statistics and Probability	Read, interpret, compare, make predictions & graph data expressed in a variety of forms	Determine the mode, range, median, and mean, given a set of data or graph (10.6.04)	Read, interpret, and make predictions from data represented in a bar graph, line plot, Venn diagram, chart/table, line graph, or circle graph (10.6.01)	Create a bar graph, line graph, chart/table or circle graph with common referents (0,25,50,75,100%) for a given set of data (10.6.03) (CORE)
6	Math	Geometry	Identify, classify, describe, sketch, and solve problems with regular and irregular 2 dimensional and 3 dimensional shapes	Graph, locate, identify points, describe paths and plot figures using ordered pairs (first quadrant) (9.6.05) Include use of coordinates to find distances between points with the same first or same second coordinate (CORE)	Identify and sketch parallel, perpendicular, intersecting lines (9.6.07), acute, right, and obtuse angles (9.6.08)	Classify, describe, and sketch regular and irregular 2D shapes according to # of sides, length of sides, # of vertices and interior angles (9.6.01) Identify and describe 3D shapes (cubes, spheres, cones, cylinders, prisms, and pyramids) according to their characteristics (faces, edges, vertices) (9.6.2)

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards		
7	Math	The Number System	Read, write, model, and solve problems involving the four operations using integers and decimals, fractions and percents	Read, write, and recognize equivalent representations of positive powers of 10. (6.7.01)	Identify and locate integers, decimals, fractions, and mixed numbers on a number line, and estimate locations of square roots (6.7.06)	Solve problems involving descriptions of numbers, including characteristics and relationships (e.g. square numbers, prime/composite, prime factorization, greatest common factor, least common multiple) (6.7.07)
7	Math	Ratios and Proportional Relationships	Use ratios and proportions to model and solve problems	Create and explain ratios that represent a given situation (6.7.14)	Determine if figures are similar, identify relationships between corresponding parts of similar figures. (9.7.14)	Use proportional reasoning to model and solve problems (6.7.15) Use proportional relationships to solve multistep ratio and percent problems (examples: simple interest, tax, markups and markdowns, fees, % increase/decrease) (CORE)
7	Math	Algebra	Write, evaluate, analyze, simplify and solve problems involving algebraic expressions and equations	Evaluate or simplify algebraic expressions with one or more integer variable values (e.g. a^2+b for $a=3$ and $b=-4$) (8.7.05)	Identify, graph and interpret inequalities on a number line (8.7.09)	Determine a missing term in a sequence, extend a sequence, and construct and identify a rule that can generate the terms of an arithmetic or geometric sequence. (8.7.01)
7	Math	Measurement	Solve problems involving measurement, perimeter, area, volume, unit conversions, scale drawings, and coordinate plane	Select and use appropriate standard units and tools to measure length, mass/weight, capacity, and angles. Sketch with given specifications, line segments, angles, triangles and quadrilaterals (7.7.01)	Solve problems involving unit conversions within the same measurement system for length, weight/mass, capacity, and square units (e.g. $1 \text{ ft}^2=144 \text{ in}^2$) (7.7.05)	Solve problems involving perimeter and area of polygons and composite figures using diagrams, models, and grids or by measuring or using given formulas (7.7.02) Solve real-world problems involving area, volume and surface area of 2D and 3D objects (CORE)
7	Math	Data, Statistics and Probability	Read, interpret, compare, make predictions and graph data expressed in a variety of forms	Determine and use the mode, range, median, and mean to interpret data (10.7.05)	Read, interpret, and make predictions from data represented in a bar graph, line plot, Venn diagram, chart/table, line graph, scatter plot, histogram, or circle graph (10.7.01)	Create a pictograph, bar graph, tally chart or data table for a given set of data (10.4.02) "From a line plot find and interpret the difference in length between the largest and smallest specimen" (example from CORE)
7	Math	Geometry	Identify, classify, describe, sketch, and solve problems with regular and irregular 2 dimensional and 3 dimensional shapes	Graph points and identify coordinates of points on the Cartesian coordinate plane (all four quadrants) (9.7.05)	Solve problems involving complementary and supplementary angles (9.7.10) Use facts about supplementary and complementary angles to write and solve simple equations for an unknown angle (CORE)	Solve problems involving two and three dimensional shapes. (9.7.02)

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards		
8	Math	The Number System	Read, write, model, and solve problems involving the four operations using rational numbers, exponents, roots, decimals, fractions and percents	Read, write, and recognize equivalent representations of integer powers of 10. (6.8.01) Perform operations with #s expressed in scientific notation (CORE)	Identify and locate rational and irrational numbers (e.g. π , $\sqrt{2}$, $\sqrt{5}$) on a number line (6.8.07) Know that there are #s that are not rational, and approximate them with rational numbers (CORE)	Solve problems involving descriptions of numbers, including characteristics and relationships (e.g. exponents, roots, prime/composite, prime factorization, greatest common factor, least common multiple) (6.8.08)
8	Math	Ratios and Proportional Relationships	Use ratios and proportions to describe problem situations, model and solve problems	Use ratios to describe problem situations (6.8.15)	Solve problems involving congruent and similar figures (9.8.11)	Use proportional reasoning to model and solve problems (6.8.16) Graph proportional relationships (CORE)
8	Math	Algebra	Write, evaluate, analyze, simplify and solve problems involving algebraic expressions and equations	Evaluate or simplify algebraic expressions with one or more rational variable values (e.g. $3a^2 - b$ for $a=3$ and $b=7$) (8.8.05) Evaluate square roots, and cube roots of small perfect cubes (CORE)	Identify, graph, and interpret up to two inequalities with a single variable (including the intersection or union of these inequalities) on a number line (8.8.10)	Analyze, extend and create sequences or linear functions, and determine algebraic expressions to describe the nth term of a sequence (8.8.01) Derive the equation $y = mx + b$ (CORE)
8	Math	Measurement	Solve problems involving measurement, perimeter, area, volume, scale drawings, and coordinate plane	Select and use appropriate standard units and tools to solve measurement problems, including measurements of polygons and circles (7.8.01)	Solve problems involving unit conversions within the same measurement system for length, weight/mass, capacity, square units, and measures expressed as rates (e.g. feet/second to yards/minute) (7.8.05)	Solve problems involving perimeter/circumference and area of polygons, circles, and composite figures using diagrams, models, and grids or by measuring or using given formulas (7.8.02)
8	Math	Data, Statistics and Probability	Read, interpret, compare, analyze, make predictions and graph data expressed in a variety of forms	Analyze and apply measures of central tendency (mode, range, median, and mean) in problem solving situations. (10.8.05)	Read, interpret, and make predictions from data represented in a bar graph, line plot, Venn diagram (2 or 3 circles), chart/table, line graph, scatter plot, stem-and-leaf plot, histogram, or circle graph (10.8.01)	Create a pictograph, bar graph, tally chart or data table for a given set of data (10.4.02) "From a line plot find and interpret the difference in length between the largest and smallest specimen" (example from CORE)
8	Math	Geometry	Identify, classify, describe, sketch, and solve problems with regular and irregular 2 dimensional and 3 dimensional shapes	Graph points, and identify coordinates of points on the Cartesian plane (all four quadrants) (9.8.05)	Solve problems involving vertical, complementary, and supplementary angles. (9.8.09)	Solve problems involving two and three dimensional shapes (9.8.01) (CORE)

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards (Extrapolated from 4th Grade IL Assessment Framework)		
3	Science	Experimental Design	Conduct experiments to test hypothesis and modify experimental design based on interpreting charts and graphs generated from observations.	Understand how to design and perform simple experiments. 11.4.01	Distinguish among and answer questions about performing the following: observing, drawing a conclusion based on observation, forming a hypothesis, conducting an experiment, organizing data, constructing and reading charts and graphs, and comparing data. 11.4.02	Know that scientific results must be reproducible. Know that different scientists study different subjects but work in similar ways. 13.4.04
3	Science	Data Interpretation	Organize, contextualize, and interpret experimental data in order to identify patterns to draw conclusions about experimental design as well as to describe physical phenomenon.	Distinguish among the following: recording the data from an experiment, organizing the data into a more useful form, analyzing it to identify relevant patterns, and reporting and displaying results. 11.4.04	Assess given test results on a prototype (i.e., draw conclusions about the effectiveness of the design using given criteria). Analyze data and rebuild and retest prototype as necessary. 11.4.06	Explain why similar results are expected when procedures are done the same way. Understand the importance of recording observations accurately and honestly. 13.4.03
3	Science	Impact of Science on Society/ Technology	Understand and identify the ways that science and technology impact the environment, societies and individual lives.	Understand the impact of different scientific discoveries on society. 13.4.09	Identify ways that science and technology affect people's lives (e.g., in transportation, medicine, agriculture, communication) and careers. 13.4.11	Identify ways that technology has changed local, national, or global environments. 13.4.12
3	Science	Physical Science	Water and the Water Cycle, Earth Materials and their Uses, Sound, Earth, Sun, Moon and Stars	Identify the three basic kinds of rocks: igneous, sedimentary, and metamorphic and the processes that created them. Use information to identify physical properties of minerals. 12.4.34 Understand that some rocks contain plant and animal fossils. Know how they were formed. 12.4.33	Understand the stages of the water cycle: evaporation, condensation, and precipitation. 12.4.43 Understand that most of Earth's surface is covered by water, and identify the major kinds of land and water formations: continent, mountain, valley, island, cave, ocean, lake, and river. 12.4.44	Identify the order of planets from the sun, and know that the further planets take longer to go around the sun. Understand that all planets in our solar system revolve around the sun. Because Earth revolves around the sun, objects (e.g., stars, planets, constellations) in the sky appear to change positions throughout the year. Know that it takes Earth 365 ¼ days to revolve around the sun. 12.4.47
3	Science	Life Science	Cycles of Living Things	Identify the basic classifications of animals based on how they interact with their environment [e.g., (a) Some animals are active in the daytime (diurnal), others in the night time (nocturnal). (b) Some animals have a body temperature that stays the same regardless of significant temperature changes in their immediate environment (warm blooded), others have a body temperature that rises and falls with the temperature changes of their environment (cold blooded). (c) Some animals are herbivores, others are carnivores]. 12.4.10 Understand the concept of food chains and food webs and the related classifications of plants or animals (e.g., producers, decomposers, consumers, herbivores, carnivores). 12.4.07	Know that the world contains many kinds of environments, and that different animals and plants are suited to live in different environments. 12.4.08 Understand that some animals survive winter by being fitted for an active life during winter (e.g., penguins), others by hibernation (e.g., certain bears), and others by migration (e.g., monarch butterflies). 12.4.12	Understand that each plant or animal has different structures that serve different functions in its growth, survival, and reproduction. Understand the concept of animal camouflage and how it relates to the survival of living things. 12.4.09 Understand how adaptations of living things help survival in different environments.

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards		
4	Science	Experimental Design	Conduct experiments to test hypothesis and modify experimental design based on interpreting charts and graphs generated from observations.	Understand how to design and perform simple experiments. 11.4.01	Distinguish among and answer questions about performing the following: observing, drawing a conclusion based on observation, forming a hypothesis, conducting an experiment, organizing data, constructing and reading charts and graphs, and comparing data. 11.4.02	Know that scientific results must be reproducible. Know that different scientists study different subjects but work in similar ways. 13.4.04
4	Science	Data Interpretation	Organize, contextualize, and interpret experimental data in order to identify patterns to draw conclusions about experimental design as well as to describe physical phenomenon.	Distinguish among the following: recording the data from an experiment, organizing the data into a more useful form, analyzing it to identify relevant patterns, and reporting and displaying results. 11.4.04	Assess given test results on a prototype (i.e., draw conclusions about the effectiveness of the design using given criteria). Analyze data and rebuild and retest prototype as necessary. 11.4.06	Explain why similar results are expected when procedures are done the same way. Understand the importance of recording observations accurately and honestly. 13.4.03
4	Science	Impact of Science on Society/ Technology	Understand and identify the ways that science and technology impact the environment, societies and individual lives.	Understand the impact of different scientific discoveries on society. 13.4.09	Identify ways that science and technology affect people's lives (e.g., in transportation, medicine, agriculture, communication) and careers. 13.4.11	Identify ways that technology has changed local, national, or global environments. 13.4.12
4	Science	Physical Science	Chemical Testing, Electricity and Magnetism, Earth Features and Changes	Understand that matter is usually found in 3 states: liquid, solid, and gas and be able to identify the properties of each. Understand that water can be found in all three forms. 12.4.14 Understand that some substances will dissolve in water and some will not. Understand the property of density. 12.4.16	Understand that besides static electricity, there is also such a thing as current electricity. For example, given a battery, bulb, and wire, students will understand the proper configuration to make the bulb light. 12.4.21 Understand that electrical energy can be converted to other types of energy such as heat, light, or mechanical energy. 12.4.21	Understand that a magnet attracts iron, but not plastic, paper, and other nonmetals; nor does it attract all metals (since it does not attract copper or aluminum). Identify conductors and insulators. 12.4.17 Understand that objects of like charge repel each other and that objects of opposite charge attract each other. 12.4.19
4	Science	Life Science	Human Body: Forms and Function	Understand the functions of component parts of living things. Identify the systems and functions in the human body. 12.4.05	Understand that all living things are composed of cells: small parts which function similarly in all living things. Understand that different tissues have different, specialized cells with specific functions. Understand the levels of organization in living organisms—cells, tissues, organs, and organ systems.	Understand that land formations (mountains, valleys, shorelines, and caves) change slowly over time, and identify the major natural causes of such changes: (a) Slow causes: erosion, caused by wind, rain, glaciers, water freezing inside cracks of rocks, the growth of tree roots; (b) Sudden causes: rare catastrophes. 12.4.37 Understand that the main cause of erosion is moving water. Understand that when water erodes landmasses, it carries the land away by rainfall and rivers and re-deposits it in the form of pebbles, sand, silt, and mud. 12.4.36

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards (Extrapolated from 4th & 7th Grade IL Assessment Framework)		
5	Science	Experimental Design	Conduct experiments to test hypothesis and modify experimental design based on interpreting charts and graphs generated from observations.	Understand how to design and perform simple experiments. 11.4.01	Distinguish among and answer questions about performing the following: observing, drawing a conclusion based on observation, forming a hypothesis, conducting an experiment, organizing data, constructing and reading charts and graphs, and comparing data. 11.4.02	Know that scientific results must be reproducible. Know that different scientists study different subjects but work in similar ways. 13.4.04
5	Science	Data Interpretation	Organize, contextualize, and interpret experimental data in order to identify patterns to draw conclusions about experimental design as well as to describe physical phenomenon.	Distinguish among the following: recording the data from an experiment, organizing the data into a more useful form, analyzing it to identify relevant patterns, and reporting and displaying results. 11.4.04	Assess given test results on a prototype (i.e., draw conclusions about the effectiveness of the design using given criteria). Analyze data and rebuild and retest prototype as necessary. 11.4.06	Explain why similar results are expected when procedures are done the same way. Understand the importance of recording observations accurately and honestly. 13.4.03
5	Science	Impact of Science on Society/ Technology	Understand and identify the ways that science and technology impact the environment, societies and individual lives.	Understand the impact of different scientific discoveries on society. 13.4.09	Identify ways that science and technology affect people's lives (e.g., in transportation, medicine, agriculture, communication) and careers. 13.4.11	Identify ways that technology has changed local, national, or global environments. 13.4.12
5	Science	Physical Science	Time and Motion, Levers, Pulleys and Machines, Energy Resources	Define a force as a push or a pull that tends to move an object. Understand that forces may be balanced or unbalanced. Know that when the forces applied to an object are balanced, the motion or rest of that object does not change. Identify simple machines (lever, inclined plane, pulley, screw, and wheel and axle) and understand how they function. Understand know how they apply forces with advantage, and identify which machine is suited for accomplishing a simple task. 12.4.25, 12.4.27	Identify the relative positions of the earth, moon, and sun during a solar eclipse, a lunar eclipse, a full moon, a half moon, and a new moon. Given a diagram of the earth, moon, and sun, identify which of these is depicted. Understand that moons and planets do not produce their own light—the light we see when we look at them is the sunlight which they reflect. 12.4.46, 12.4.47	Understand that almost all of Earth's energy comes from the sun. Understand that this energy is in the form of visible and invisible light with a range of wavelengths 12.7.54 Solve problems using the sky as a clock, compass and calendar using the sun.
5	Science	Life Science	Microorganisms and Other Small Things	Identify the main differences between plant cells and animal cells, namely that plant cells have chloroplasts and cell walls (which provide rigidity to the plant, since plants have no skeletons). Identify the basic cell organelles and their functions. Understand that some organisms are unicellular, others multi-cellular. Understand that some unicellular organisms are like tiny animals, able to propel themselves or change their shape and that they are endowed with sensation. 12.7.03, 12.7.04	Understand that the nucleus of cell contains the genetic information for the plant or animal to which it belongs. Understand that cells divide to increase their numbers, and the process of cell division called mitosis results in two daughter cells each with identical sets of chromosomes. 12.7.05, 12.7.06	Understand that each plant or animal has different structures that serve different functions in its growth, survival, and reproduction. Understand the concept of animal camouflage and how it relates to the survival of living things. 12.4.09 Understand how adaptations of living things help survival in different environments.

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards (Extrapolated from 7th Grade IL Assessment Framework)		
6	Science	Experimental Design	Use an understanding of the variable, constant, and control group to set up and modify experiments that test hypothesis through the analysis observations organized in data charts and graphs.	Define a variable as some factor which changes in different phases of an experiment. Define a constant as something kept the same in every phase of the experiment. Understand that most scientific experiments are designed so that only one variable is tested in each experiment. Identify constants and variables in described experiments. 11.7.04	Define the control group or control setup as a group of subjects that are the same in all important ways as the subjects on which we are performing the experiment, except that the control is isolated from what we suspect to be the cause we are seeking to evaluate—the control helps to increase our certainty that the suspected cause really is the cause. 11.7.05	Distinguish among and answer questions about performing the following: observing, drawing a conclusion based on observation, forming a hypothesis, conducting an experiment, organizing data, constructing and reading charts and graphs, and comparing data. Recognize the common units of the metric system. 11.7.02
6	Science	Data Interpretation	Analyze patterns in data collected to evaluate the relationship between the constant and variable in an experiment and identify possible sources of experimental error.	Identify possible errors in data and formulate potential causes and solutions for the error.	Define the control group or control setup as a group of subjects that are the same in all important ways as the subjects on which we are performing the experiment, except that the control is isolated from what we suspect to be the cause we are seeking to evaluate—the control helps to increase our certainty that the suspected cause really is the cause. 11.7.09	Analyze patterns in data from an experiment to determine whether the information gathered helps to answer a given question or hypothesis (e.g., all of the plants fertilized in a vegetable garden grew taller than the ones not fertilized. Understand that this is an indication that the fertilizer caused the plants to grow taller.) 11.7.06
6	Science	Impact of Science on Society/ Technology	Analyze the impact that technology has on the physical world and society using multiple sets of data and understand how sound scientific findings impact decisions made by society.	Understand that important social decisions are made on the basis of risk/benefit analysis (e.g., whether to administer a smallpox vaccine or not). 13.7.06	Analyze the interaction of resource acquisitions, technological development and ecosystem impact. 13.7.10	Understand that one set of data is not sufficient evidence for making a generalization. Identify the kind of reasoning called induction, and know that the more cases that are seen, the greater the certainty of the generalization drawn from those cases. Indicate that repeatability of results is necessary for the scientific community to accept someone's findings. 13.7.03, 13.7.04
6	Science	Earth Science	Earth Resources, The Changing Earth, Rocks and Geological Time, Climate and Weather	Understand that clouds, formed by the condensation of water vapor, affect weather and climate. Understand that clouds cause precipitation and lightning and that they insulate heat and moisture in the air. Understand how jet streams affect weather. Identify weather fronts and understand how they are formed. Understand how to read and interpret weather maps. 12.7.85, 12.7.86	Understand that the solid Earth is layered with a crust, under which is a hot convecting mantle, and that at the center of the earth is a dense, metallic core. Understand that the theory of plate tectonics explains the formation and movement of the earth's plates. Understand that the similar contours of the continents, seafloor spreading, and the location of frequent earthquakes and volcanoes provide evidence for plate tectonics. Understand that movements of the earth's continental and oceanic plates have affected the distribution of living things on Earth. Understand that major earthquake and volcanic activity can give rise to new mountain ranges, severing different species from each other, which from then on undergo independent lines of gradual change, each adapting to its own, new ecosystem. 12.7.77, 12.7.79, 12.7.80	Understand that energy appears in many forms, such as heat, light, sound, chemical, mechanical, solar, nuclear, and electromagnetic energy. Understand the basic characteristics of each of these kinds of energy. Understand the nature of kinetic and potential energy. Understand that energy can be transferred by radiation, conduction, and convection. 12.7.49, 12.7.51
6	Science	Space Science	Earth in Space	12.7.91 Understand that objects in the solar system are for the most part in regular and predictable motion. Know that those motions explain such phenomena as the day, the year, the phases of the moon, and eclipses.	12.7.93 Identify the differences among the planets in our solar system: the four closest planets to the Sun are called the inner planets. The inner planets are small and have rocky surfaces. The five farthest planets from the Sun are called the outer planets. All outer planets except Pluto are much larger than Earth, are made of gases, and have no solid surfaces.	12.7.98 Understand that the cause of the earth's seasons and the change in the amount of daylight throughout the year is the tilt of its axis of rotation with respect to the plane of its orbit. Given a diagram of the earth depicting (1) its relative position to the sun and (2) the orientation of its axis of rotation and (3) some circle of latitude, identify the following: (a) the season of the year (if the circle of latitude is other than the equator), and (b) whether there is more daylight or more dark hours at that time of year. Understand why the seasons and daylight hours in opposite hemispheres are opposite to each other.

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards		
7	Science	Experimental Design	Use an understanding of the variable, constant, and control group to set up and modify experiments that test hypothesis through the analysis observations organized in data charts and graphs.	Define a variable as some factor which changes in different phases of an experiment. Define a constant as something kept the same in every phase of the experiment. Understand that most scientific experiments are designed so that only one variable is tested in each experiment. Identify constants and variables in described experiments. 11.7.04	Define the control group or control setup as a group of subjects that are the same in all important ways as the subjects on which we are performing the experiment, except that the control is isolated from what we suspect to be the cause we are seeking to evaluate—the control helps to increase our certainty that the suspected cause really is the cause. 11.7.05	Distinguish among and answer questions about performing the following: observing, drawing a conclusion based on observation, forming a hypothesis, conducting an experiment, organizing data, constructing and reading charts and graphs, and comparing data. Recognize the common units of the metric system. 11.7.02
7	Science	Data Interpretation	Analyze patterns in data collected to evaluate the relationship between the constant and variable in an experiment and identify possible sources of experimental error.	Identify possible errors in data and formulate potential causes and solutions for the error.	Define the control group or control setup as a group of subjects that are the same in all important ways as the subjects on which we are performing the experiment, except that the control is isolated from what we suspect to be the cause we are seeking to evaluate—the control helps to increase our certainty that the suspected cause really is the cause. 11.7.09	Analyze patterns in data from an experiment to determine whether the information gathered helps to answer a given question or hypothesis (e.g., all of the plants fertilized in a vegetable garden grew taller than the ones not fertilized. Understand that this is an indication that the fertilizer caused the plants to grow taller.) 11.7.06
7	Science	Impact of Science on Society/ Technology	Analyze the impact that technology has on the physical world and society using multiple sets of data and understand how sound scientific findings impact decisions made by society.	Understand that important social decisions are made on the basis of risk/benefit analysis (e.g., whether to administer a smallpox vaccine or not). 13.7.06	Analyze the interaction of resource acquisitions, technological development and ecosystem impact. 13.7.10	Understand that one set of data is not sufficient evidence for making a generalization. Identify the kind of reasoning called induction, and know that the more cases that are seen, the greater the certainty of the generalization drawn from those cases. Indicate that repeatability of results is necessary for the scientific community to accept someone's findings. 13.7.03, 13.7.04
7	Science	Macro biology	Studying people scientifically, Ecology, Evolution	Understand how fossils provide evidence that animals and plants have changed over time, and that new species of organisms changed over time out of older ones. 12.7.24	Understand that three important cycles for the survival of living things in Earth's ecosystems are the carbon dioxide-oxygen cycle, the water cycle, and the nitrogen cycle. 12.7.25	Identify and describe the major biomes and habitats and their characteristics: desert, grassland, savannah, tropical forest, coniferous forest, tundra, freshwater, and saltwater. Understand that animals have parts well suited to the places they live in and to their needs. 12.7.31, 12.7.32
7	Science	Microbiology	Cells structure and function, Genetics	Understand that all living things are composed of cells: small parts which function similarly in all living things. Understand that different tissues have different, specialized cells with specific functions. Understand the levels of organization in living organisms—cells, tissues, organs, and organ systems. 12.7.02	Identify the main differences between plant cells and animal cells, namely that plant cells have chloroplasts and cell walls (which provide rigidity to the plant, since plants have no skeletons). Identify the basic cell organelles and their functions. 12.7.03	Understand the distinction between sexual and asexual reproduction. Understand that the offspring of sexual reproduction inherits half its genes from each parent. Understand that heredity is based on the probability of inheriting a given trait for which one or both of the parents carries a gene, and that this probability can be calculated given the genetic make-up of the parents with regard to that kind of trait (e.g., blue eyes) using a Punnett Square. 12.7.08, 12.7.10, 12.7.12

Grade	Subject	Topic	Key Learning Target	Specific Skills / Standards (Extrapolated from 7th Grade IL Assessment Framework)		
8	Science	Experimental Design	Use an understanding of the variable, constant, and control group to set up and modify experiments that test hypothesis through the analysis observations organized in data charts and graphs.	Define a variable as some factor which changes in different phases of an experiment. Define a constant as something kept the same in every phase of the experiment. Understand that most scientific experiments are designed so that only one variable is tested in each experiment. Identify constants and variables in described experiments. 11.7.04	Define the control group or control setup as a group of subjects that are the same in all important ways as the subjects on which we are performing the experiment, except that the control is isolated from what we suspect to be the cause we are seeking to evaluate—the control helps to increase our certainty that the suspected cause really is the cause. 11.7.05	Distinguish among and answer questions about performing the following: observing, drawing a conclusion based on observation, forming a hypothesis, conducting an experiment, organizing data, constructing and reading charts and graphs, and comparing data. Recognize the common units of the metric system. 11.7.02
8	Science	Data Interpretation	Analyze patterns in data collected to evaluate the relationship between the constant and variable in an experiment and identify possible sources of experimental error.	Identify possible errors in data and formulate potential causes and solutions for the error.	Define the control group or control setup as a group of subjects that are the same in all important ways as the subjects on which we are performing the experiment, except that the control is isolated from what we suspect to be the cause we are seeking to evaluate—the control helps to increase our certainty that the suspected cause really is the cause. 11.7.09	Analyze patterns in data from an experiment to determine whether the information gathered helps to answer a given question or hypothesis (e.g., all of the plants fertilized in a vegetable garden grew taller than the ones not fertilized. Understand that this is an indication that the fertilizer caused the plants to grow taller.) 11.7.06
8	Science	Impact of Science on Society/ Technology	Analyze the impact that technology has on the physical world and society using multiple sets of data and understand how sound scientific findings impact decisions made by society.	Understand that important social decisions are made on the basis of risk/benefit analysis (e.g., whether to administer a smallpox vaccine or not). 13.7.06	Analyze the interaction of resource acquisitions, technological development and ecosystem impact. 13.7.10	Understand that one set of data is not sufficient evidence for making a generalization. Identify the kind of reasoning called induction, and know that the more cases that are seen, the greater the certainty of the generalization drawn from those cases. Indicate that repeatability of results is necessary for the scientific community to accept someone's findings. 13.7.03, 13.7.04
8	Science	Chemistry	Properties of matter, Materials science, Water	Identify the 3 subatomic building blocks and their properties. Know that the electron has a negative charge, the proton has a positive charge, and the neutron is electrically neutral. Understand that during a chemical change atoms are neither created nor destroyed but are rearranged to make new substances. 12.7.43, 12.7.46	Define element as a substance that cannot be broken down into simpler substances by chemical interactions. Understand that there are over 100 known elements that combine in many ways to form many kinds of compounds. Each element has its own number on the periodic table. Identify simple compounds (e.g., H ₂ O, NaCl). 12.7.39, 12.7.41	Examine the relationship among atoms, molecules, elements, and compounds (chemical reactions, atomic structure, chemical properties of substances)
8	Science	Physics	Motion and forces, Work, Energy and Efficiency	Understand that energy appears in many forms, such as heat, light, sound, chemical, mechanical, solar, nuclear, and electromagnetic energy. Understand the basic characteristics of each of these kinds of energy. Understand the nature of kinetic and potential energy. Know the laws of the conservation of matter and energy. Apply the conservation of matter as a reason why the number and kinds of atoms in a chemical change remains constant. 12.7.48, 12.7.49	Examine and measure force and motion (Understand Newton's Three Laws, measure the motion of moving objects, test harmonic and oscillating motion in everyday objects)	Understand the stages in the water cycle on Earth: evaporation, condensation, and precipitation. Understand that water below the surface is groundwater and it forms when precipitation moves slowly downward through rocks and soil. Know that about three fourths of the earth is covered with water. Understand that most of the earth's water is salt water (oceans), and only about 3 percent of the earth's water is freshwater. Know that freshwater is found mainly in icecaps, glaciers, lakes, groundwater, rivers, and the atmosphere. 12.7.88, 12.7.89, 12.7.90