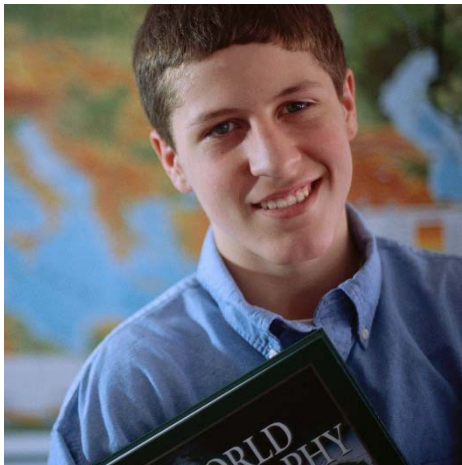


SAU29



5



social studies - english language arts - math - science - health



Curriculum Guides
Updated 2010

Fifth Grade

SAU 29 Curricula

English Language Arts

- Literature
- Informational Text
- Foundations
- Writing
- Speaking/Listening
- Language

Mathematics

- Operations & Algebraic Thinking
- Number & Operations in Base Ten
- Number & Operations—Fractions
- Measurement & Data
- Geometry
- [Mathematical Practices]

Science

- Earth & Space Science
- Life Science
- Physical Science

Health

- Alcohol
- Community/Environmental Health
- Family Life
- Injury Prevention
- Mental Health
- Nutrition
- Personal/Consumer Health
- Physical Activity
- Tobacco

Social Studies

- Economics
- Civics/Government
- History
- Geography

Fifth Grade: Literature

Essential Questions

Why is it important to summarize what we have read?

(Summarizing, through comparing and contrasting, understanding the author’s point of view, and quoting statements from the text all lead to better comprehension and recall of what we read.)

➤ *The bulleted language is to guide instruction*

Fifth Grade	Student Friendly
1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. <ul style="list-style-type: none"> ➤ Model how to identify quotes from the text to support statements about the text 	I can quote from a text to support statements about the text.
2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. <ul style="list-style-type: none"> ➤ Discuss and determine the theme or lesson of a story by examining how the characters solve conflict ➤ Discuss and determine the theme or lesson of a poem by how the speaker analyzes the topic ➤ Model how to summarize the text 	I can summarize the text and tell what the theme of a text is by studying the way a character responds to a problem.
3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). <ul style="list-style-type: none"> ➤ Discuss and determine character traits using details ➤ Model how to compare and contrast two or more characters using details ➤ Model how to compare and contrast settings in a text using details ➤ Model how to compare and contrast events in a text using details 	I can compare and contrast two or more characters, events or settings, by using details from the text.
4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. <ul style="list-style-type: none"> ➤ Discuss and Identify metaphors and similes in a text. ➤ Explain how metaphors, similes, rhyming words, and alliteration give meaning to the text. 	I can identify how metaphors (comparing without the word like), similes (with the words like or as), rhyming words, alliteration (same beginning sounds), give meaning to what I am reading.
5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.	<i>Introduce</i>

Fifth Grade	Student Friendly
<p>6. Describe how a narrator’s or speaker’s point of view influences how events are described.</p> <ul style="list-style-type: none"> ➤ Determine the narrator’s point of view ➤ Analyze and discuss the influence of the narrator’s point of view on the telling of the story 	<p>I can identify how a narrator’s point of view influences the telling of the story.</p>
<p>7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).</p>	<p><i>Introduce</i></p>
<p>8. <i>(Not applicable to literature)</i></p>	
<p>9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.</p>	<p><i>Introduce</i></p>
<p>10. By the end of the year read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.</p> <ul style="list-style-type: none"> ➤ Model how to decode independently. ➤ Recognize and demonstrate fluent reading 	<p>I can read fifth grade literature fluently and independently by the end of the year.</p>

Fifth Grade: Informational Text

Essential Questions

How do I interpret meaning of informational text?

(Chronological order, cause & effect, compare & contrast are ways to analyze informational text.)

Why do I use more than one source for information?

(Information is collected from many sources)

(Every author portrays his own perspectives)

➤ **The bulleted language is to guide instruction**

Fifth Grade	Student Friendly
1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. <ul style="list-style-type: none"> ➤ Define how to properly quote information from a text ➤ Explain how to use quotes from a text to support statements about the text 	I can find specific lines in the text to support my description of the material.
2. Determine the main idea of each of several sections of text and explain how each is supported by key details; summarize the text. <ul style="list-style-type: none"> ➤ Model how to determine the main idea and key ideas ➤ Explain how key details support the main idea ➤ Model how to summarize the main idea 	I will find the main idea for several sections of text and the details that support each idea. I will summarize the text.
3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. <ul style="list-style-type: none"> ➤ Model how to determine key events and concepts in one or more texts ➤ Model how to compare the relationships between events and concepts 	I can explain how historical events or scientific concepts are connected by using key details.
4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a <i>grade 5 topic or subject area</i> . <ul style="list-style-type: none"> ➤ Demonstrate how to locate general academic and domain-specific words in the text ➤ Explain how to use context clues to discover meaning ➤ Model how to use a dictionary, glossary to discover meaning 	I can define grade 5 vocabulary in math, science social studies and language arts.
5. Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts. <ul style="list-style-type: none"> ➤ Review the definition of chronology, comparison and cause and effect ➤ Explain how to identify how events, ideas, or information in a text is organized using chronology, comparison, cause/effect. 	I can explain how ideas are organized in a text, such as chronological order, comparisons / contrasts and cause and effect.

Fifth Grade	Student Friendly
<p>5. <i>(continued)</i></p> <ul style="list-style-type: none"> ➤ Model how to compare and contrast the overall structure of two or more text. 	
<p>6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.</p> <ul style="list-style-type: none"> ➤ Model how to read two accounts of the same event or topic ➤ Explain how to locate similarities and differences between the two text 	<i>Introduce</i>
<p>7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.</p> <ul style="list-style-type: none"> ➤ Demonstrate how to explore multiple print sources or digital text and gather information for a topic ➤ Explain how to answer questions using information gathered from text 	<i>Introduce</i>
<p>8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).</p> <ul style="list-style-type: none"> ➤ Explain how to find main idea the author is claiming ➤ Model how to locate evidence that supports the main idea 	I can identify what details an author uses to support his main idea.
<p>9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.</p> <ul style="list-style-type: none"> ➤ Explain how to explore several texts on the same subject ➤ Demonstrate how to locate main ideas from each text source ➤ Explain how to compare and contrast main ideas from each text source ➤ Demonstrate how to compile information in order to speak or write about the subject 	I can use information from two or more texts to write a paper or an oral presentation.
<p>10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.</p> <ul style="list-style-type: none"> ➤ Review how to decode independently ➤ Demonstrate fluent reading 	I can read history, science, or technical texts independently and fluently at the fifth grade level.

Fifth Grade: Foundation Skills

Essential Questions

How do I use reading to enrich my learning?

(Reading accurately and fluently allows the reader to comprehend new information more quickly.)

➤ *The bulleted language is to guide instruction*

Fifth Grade	Student Friendly
1. Not in CC	
2. Not in CC	
<p>3. Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.</p> <ul style="list-style-type: none"> ➤ Review all long vowel teams ➤ Demonstrate separating multi-syllable words ➤ Introduce words that do not follow general phonetic rules 	<p>I know and can apply fifth grade phonics to decode words.</p> <p>I can break unfamiliar words into syllables to help me read more fluently.</p>
<p>4. Read with sufficient accuracy and fluency to support comprehension.</p> <p>a. Read on-level text with purpose and understanding.</p> <p>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>	<p>I can read fifth grade level text accurately and fluently with enough understanding to pass an AR Quiz.</p> <p>I can self correct as I read by using my phonics skills and reading strategies.</p>

Fifth Grade: Writing

Essential Questions

How can I make my writing more informative?

(Taking notes from a variety of sources confirms accuracy of information.)

(Each subject area uses specific words to explain its concepts.)

(Transition words are used to link ideas.)

(Planning and revision is essential to the writing process.)

How do I make my stories more interesting?

(Dialogue and description help to enhance a story.)

(Build on the elements of a short story including: setting, characters, plot.)

How do I choose the type of writing I need?

(Match one of the four types of writing based on what is being expressed. There are four types of writing: persuasive, where you influence the reader, narrative, where you tell a story, expository, where you explain something to the reader, and descriptive, where you use five senses to create a picture through words.)

➤ *The bulleted language is to guide instruction*

Fifth Grade	Student Friendly
<p>1. Write opinions in which they:</p> <ul style="list-style-type: none">a. Introduce an opinion about a concrete issue or topic and create an organizing structure where ideas are logically grouped to support the writer’s purpose.b. Provide logically ordered reasons that are supported by facts and details.c. Link reasons and details together using words, phrases, and clauses (e.g., <i>consequently, generally, specifically</i>).d. Adopt an appropriate style for sharing and defending an opinion.e. Provide a concluding statement or section.<ul style="list-style-type: none">➤ Review how to state an opinion about a topic, issue or book.➤ Review how to create and/or use a graphic organizer to list and group reasons and ideas.➤ Model how to order reasons that are supported by details.➤ Define and show examples of adverbial conjunctions.➤ Demonstrate how to use conjunctions to link reasons and details.➤ Discuss how to develop a style appropriate for different types of writing.➤ Review how to develop a closing statement or section.	<p>I can give my opinion of a topic and in a graphic organizer to show the key details supporting my opinion.</p> <p>I can use words such as: <i>consequently, generally, specifically in addition to</i> link my opinion to the reason.</p> <p>I can present my opinion respectfully.</p> <p>I can write a closing sentence</p>

Fifth Grade	Student Friendly
<p>2. Write informative/explanatory pieces in which they:</p> <ol style="list-style-type: none"> State the topic clearly, provide a general observation and focus, and group related information logically. Develop the topic using relevant facts, concrete details, quotations, or other information and examples. Use appropriate links to join ideas within and across categories of information. Employ domain-specific vocabulary and some technical terms when appropriate. Provide a conclusion related to the information or explanation offered <ul style="list-style-type: none"> ➤ Discuss how to determine a topic for an informative or explanatory piece. ➤ Review how to list facts or details in a graphic organizer. ➤ Review how to introduce a topic clearly. ➤ Model how to develop topic sentences. ➤ Model how to organize similar information in paragraphs and sections. ➤ Review and give example of quotations. ➤ Model how to create sentences from facts, supporting details and quotations. ➤ Model how to use different types of conjunctions to link ideas within categories. ➤ Show how to use vocabulary appropriate to the topic. ➤ Review how to develop a closing statement or section. 	<p>I can write an informative paragraph clearly stating the topic, using facts, details and stating information from other sources.</p> <p>I can use words such as <i>also</i>, <i>another</i>, <i>and</i>, <i>in addition</i> and <i>more</i> to connect my ideas.</p> <p>I can use technical terms from different subject areas.</p> <p>I can write a conclusion.</p>
<p>3. Write narratives in which they:</p> <ol style="list-style-type: none"> Engage and orient the reader by establishing a situation and introducing a narrator and/or character. Use narrative techniques such as dialogue, pacing, and description to develop events and show characters' external behaviors and internal responses. Create an organization that sequences events naturally and logically using a variety of temporal words, phrases, and clauses. Provide a satisfying conclusion that follows from the narrative's events. <ul style="list-style-type: none"> ➤ Discuss and determine a situation for a narrative. ➤ Introduce and describe narrator and/or characters. ➤ Review how to use dialogue and description to show character's thoughts and responses to events. ➤ Discuss and determine the events in the narrative or story. ➤ Review how to sequence the events of the story using temporal words (adverbs) words, clauses and time phrases. ➤ Define and find examples of sensory words. ➤ Model how to use precise vocabulary to convey events and experiences. ➤ Review how to develop an appropriate conclusion. 	<p>I can write an interesting story with characters, setting and plot using dialogue and descriptions of actions, thoughts and feelings.</p> <p>I can use well chosen words to show the sequence of events.</p> <p>I can write a logical conclusion.</p>

Fifth Grade	Student Friendly
<p>4. Produce coherent and clear writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience. <i>(Grade specific expectations for writing types are defined in Standards 1–3 above.)</i></p> <ul style="list-style-type: none"> ➤ Demonstrate types of style and find examples. ➤ Discuss and define audience. ➤ Introduce and discuss purpose. 	<p>I can produce an essay, report or narrative in which my information is organized in a clear sequence with details that support my conclusions.</p>
<p>5. With guidance and support from peers and adults, strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.</p> <ul style="list-style-type: none"> ➤ Discuss a piece of writing. ➤ Model and determine additional details to add to the writing. ➤ Model revising writing. ➤ Discuss how to strengthen writing through planning, revision, and rewriting. 	<p>With help from peers and adults I can improve my writing as needed by revising, editing, rewriting, or trying a new approach.</p>
<p>6. With guidance and support from adults, use technology including the Internet, to produce, publish, and interact with others about writing.</p> <ul style="list-style-type: none"> ➤ Demonstrate opening, typing and saving a document. ➤ Model how to type work on the computer. ➤ Model how to use computer tools to edit writing. 	<p>With help I can use technology, including the Internet, to produce and publish writing in a group.</p>
<p>7. Perform short, focused research tasks that build knowledge through investigation of different aspects of a topic using several sources.</p> <ul style="list-style-type: none"> ➤ Discuss and locate information on a topic. ➤ Model how to organize information. ➤ Model how to write report. 	<p>I can find research about different parts of a topic from different sources.</p>
<p>8. Gather relevant information from experience as well as print and digital sources; summarize or paraphrase information in notes and finished work, and provide basic bibliographic information.</p> <ul style="list-style-type: none"> ➤ Model how to investigate the topic. ➤ Demonstrate how to read text from print or digital sources on a topic. ➤ Review how to identify details from the text and take notes. ➤ Define paraphrase or summarize. ➤ Model how to paraphrase and summarize notes ➤ Review how to organize information into categories. ➤ Define bibliographic information and demonstrate proper bibliographic format. 	<p>I can use what I know and what I learn from written material, taking notes on the material and sorting the information into categories.</p> <p>I can write about the information I found.</p> <p>I can list my sources that I used in a bibliography.</p>

Fifth Grade	Student Friendly
<p>9. Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned:</p> <ul style="list-style-type: none"> a. Apply <i>grade 5 reading standards</i> to informational texts (e.g., “Explain how an author uses evidence to support his or her claims in a text, identifying what evidence supports which claim(s).” b. Apply <i>grade 5 reading standards</i> to literature (e.g., “Compare and contrast two or more characters, events, or settings in a text, drawing on specific details”). <ul style="list-style-type: none"> ➤ Review how to respond to grade 5 informational text by drawing on details from the text. ➤ Review how to respond to grade 5 literature by drawing on details from the text. 	<p>I can explain how an author uses evidence or key details to support his claim (belief).</p> <p>Now, I can write a response to what I learned by using details from the text.</p> <p>I can compare and contrast characters, events, and settings from fifth grade material.</p>
<p>10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.</p> <ul style="list-style-type: none"> ➤ Encourage students to write often for different purposes, tasks and audiences. 	<p>I can write short and long responses for various subjects for the purpose of research, reflection, narration and opinion.</p>

Fifth Grade: Speaking and Listening

Essential Questions

How can I best present the information I gathered for an oral report?

(Distinguish the difference between formal and informal English, use technology to enhance, summarize information gathered, and organize information logically.)

➤ **The bulleted language is to guide instruction**

Fifth Grade	Student Friendly
<p>1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on <i>grade 5 topics and texts</i>, building on others' ideas and expressing their own clearly.</p> <ul style="list-style-type: none"> a. Come to discussions prepared having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. <ul style="list-style-type: none"> ➤ Review how to write down homework assignments ➤ Review how to gather and record information about a topic to be used in discussion ➤ Review how to ask and answer relevant questions ➤ Model how to build on previous speakers ideas ➤ Explain what drawing conclusions means 	<p>I can come prepared for class discussions by having read the required material.</p> <p>I can use material from other sources to add to the discussions.</p> <p>I can ask questions to build on the ideas of other speakers and draw conclusions from the presentations.</p>
<p>2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p> <ul style="list-style-type: none"> ➤ Model how to locate key details and main ideas of the presentation ➤ Review how to summarize using the key information or ideas presented 	<p>I can find the main ideas in a read aloud.</p> <p>I can summarize a read aloud.</p>
<p>3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.</p> <ul style="list-style-type: none"> ➤ Review how to find the purpose or main idea of a lesson ➤ Model how to locate supporting evidence ➤ Review how to summarize the main idea and supporting evidence 	<p>I can summarize the claims made by a speaker or presenter and explain how each claim is supported with evidence.</p>

Fifth Grade	Student Friendly
<p>4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <ul style="list-style-type: none"> ➤ Review how to gather facts, details and main idea of a topic ➤ Demonstrate how to outline information gathered on a topic ➤ Model how to create note cards for presenting topics orally using gathered information 	<p>I can organize information logically and in sequence with descriptive details to present an oral report.</p>
<p>5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.</p> <ul style="list-style-type: none"> ➤ Review searching on the internet for photos ➤ Review the copy-paste steps to save photos for a presentation ➤ Review resources where students can find visual media ➤ Review how to decide if the visual will enhance the presentation 	<p>I can use technology to support my presentations.</p>
<p>6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. <i>(See grade 5 Language standards 1 and 3 on pages 28 and 29 for specific expectations.)</i></p> <ul style="list-style-type: none"> ➤ Review formal and informal English ➤ Show examples where formal or informal English would be appropriate ➤ Assign a variety of communicative tasks where students practice formal language 	<p>I can use oral reporting to present information on a topic.</p>

Fifth Grade: Language

Essential Questions

How do I construct a complete and interesting sentence?

(Complete sentences are not to be confused by fragments or run-ons.)
 (Interesting sentences use descriptive words.)

How do I determine the meaning of unknown words?

(Words can be understood using: context clues, syntactic clues (e.g., the word's position or function in the sentence), spelling, affixes and consulting reference materials, both print and digital.)

How do I use words at fifth grade level to clarify meaning?

(Words have shades of meaning which can clarify the author's thoughts.)
 (Figurative language makes language more interesting.)

➤ *The bulleted language is to guide instruction*

Fifth Grade	Student Friendly
1. Observe conventions of grammar and usage. <ul style="list-style-type: none"> a. Form and use the perfect (e.g., <i>I had walked, I have walked, I will have walked</i>) verb aspects. b. Recognize and correct inappropriate shifts in verb tense and aspect.* <ul style="list-style-type: none"> ➤ Introduce perfect verb aspects ➤ Introduce recognizing and correcting inappropriate shifts in verb tense and aspect 	I can write a complete and interesting sentence. <ul style="list-style-type: none"> a. Introduce perfect verb tense. b. Introduce the idea of keeping the appropriate tense in language
2. Observe conventions of capitalization, punctuation, and spelling. <ul style="list-style-type: none"> a. Use punctuation to separate items in a series.* b. Use a comma to separate an introductory element from the rest of the sentence. c. Use underlining, quotation marks, or italics to indicate titles of works. d. Spell grade-appropriate words correctly, consulting references as needed. <ul style="list-style-type: none"> ➤ Discuss how to use punctuation to separate items in a series ➤ Introduce the use of a comma to separate an introductory element from the rest of the sentence. ➤ Introduce the use of underlining, quotation marks, or italics to indicate titles of works. ➤ Review spelling patterns and spelling dictionaries 	<ul style="list-style-type: none"> a. I can use a comma to separate items in a series. b. I can use a comma to separate an introductory element from the rest of the sentence. c. Introduce punctuation for titles of works d. I can spell correctly for my grade level.
3. Make effective language choices. <ul style="list-style-type: none"> a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.* <ul style="list-style-type: none"> ➤ Review descriptive language (and thesauruses), style, and tone ➤ Review how punctuation can add to writing ➤ Present how to expand, combine, and reduce sentences. 	<ul style="list-style-type: none"> a. I can vary my sentences to create different effects depending on my audience.

Fifth Grade	Student Friendly
<p>4. Determine word meanings (<i>based on grade 5 reading</i>).</p> <p>a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as using semantic clues (e.g., definitions, examples, or restatements in text); using syntactic clues (e.g., the word’s position or function in the sentence); analyzing the word’s sounds, spelling, and meaningful parts; and consulting reference materials, both print and digital.</p> <p>b. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., <i>photograph</i>, <i>photosynthesis</i>).</p> <p>c. Interpret figurative language, including similes and metaphors.</p> <p>d. Explain the meaning of common idioms, adages, and proverbs.</p> <ul style="list-style-type: none"> ➤ Review several ways for understanding meaning of words; semantic and syntactic clues, analyzing word sounds, spelling, meaningful parts, glossaries, dictionaries in print and digital ➤ Review and find examples of root words ➤ Review the meaning of new word by defining its root word and how a prefix, suffix, or affix can change the meaning ➤ Present figurative language using similes and metaphors ➤ Present paraphrasing common idioms, adages, and proverbs 	<p><i>Based on Grade 5 reading:</i></p> <p>a. I can determine the meaning of unknown words in 5th grade text in a number of ways: context clues, word sounds, spelling and dictionaries.</p> <p>b. I can use a known word to understand a new word with the same base.</p> <p>c. I can explain the meaning of similes and metaphors (e.g. as pretty as a picture).</p> <p>d. I can explain the meaning of simple idioms, adages, and proverbs.</p>
<p>5. Understand word relationships.</p> <p>a. Build real-life connections between words and their various uses and meanings.</p> <p>b. Define relationships between words (e.g., how <i>smirk</i> is like and unlike <i>smile</i>; what items are likely to be <i>vast</i>).</p> <p>c. Distinguish a word from other words with similar but not identical meanings (synonyms).</p> <ul style="list-style-type: none"> ➤ Demonstrate 5th grade vocabulary by using real life connections between words and their various uses and meanings ➤ Review relationships between words ➤ Review how to distinguish a word from other words with similar but not identical meanings (synonyms). 	<p>a. I can choose words that precisely describe a situation.</p> <p>b. I can identify the different meanings of grade 5 words.</p> <p>c. I can identify various meanings of similar words.</p>
<p>6. Use grade-appropriate general academic vocabulary and domain-specific words and phrases (in English language arts, history/social studies, and science) taught directly and acquired through reading and responding to texts.</p> <ul style="list-style-type: none"> ➤ Demonstrate 5th grade newly learned vocabulary through conversations, reading and response to text 	<p>I can use grade appropriate terms in each of my subject areas.</p>

UNIT/ORGANIZING PRINCIPLE:	Grade 5: Operations and Algebraic Thinking		Pacing:
ESSENTIAL QUESTIONS: How do we write and interpret numerical expressions? How do we recognize and apply properties of numbers? How can we write and interpret algebraic expressions? NATIONAL STANDARDS - Operations and Algebraic Thinking (5.OA)			
CONCEPTS/CONTENT	LEARNING TARGETS/SKILLS	GLEs	KEY TERMINOLOGY
<p><i>Write and interpret numerical expressions.</i></p> <p><i>Analyze patterns and relationships.</i></p>	<p>Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.</p> <p>Demonstrates conceptual understanding of equality by showing equivalence between two expressions.</p> <p>Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</p> <p>Explore the relationship of simple decimals to fractions.</p> <p>Master the understanding of differences between prime and composite numbers.</p>	MA 1.1	addend addition algorithm associative property commutative property distributive property difference dividend/divisor divisibility division coordinates equation estimation even numbers expanded notation factors function growing pattern identity property inequality invalid argument investigation multiple multiplication number sentence

UNIT/ORGANIZING PRINCIPLE:	Grade 5: Operations and Algebraic Thinking		Pacing:
ESSENTIAL QUESTIONS: Why is it important to answer math problems in your head by using different strategies? NATIONAL STANDARDS - Operations and Algebraic Thinking			
CONCEPTS/CONTENT	LEARNING TARGETS/SKILLS	GLEs	KEY TERMINOLOGY
	<p>Demonstrate through application, an understanding of numbers involving units of measure.</p> <p>Identify multiples and factors of whole numbers, and numbers divisible by: 2, 3, 5, 9, & 10.</p> <p>Applies properties of numbers (odd, even, and divisibility) and field properties (commutative, associative, identity, and distributive) to solve problems and to simplify computations.</p> <p>Explore the meaning of 10%, 25%, 50%, 75%, and 100%, and their fractional and decimal equivalents as part to a whole relationship in area, set or linear models.</p> <p>Demonstrates conceptual understanding of algebraic expressions by using letters to represent unknown quantities to write linear algebraic expressions involving any two of the four operations using whole numbers.</p> <p>Develop meaning for multiplication and division of whole numbers, fractions, and decimals by modeling and discussing a rich variety of problem situations.</p> <p>Mentally calculates change back from \$1.00, \$5.00, and \$10.00; calculates multiplication and related division facts to a product of 144; multiplies a two-digit whole number by a one-digit whole number (ex. 45×5), two-digit whole numbers that are multiples of 10 (e.g., 50×60), a three-digit whole number that is a multiple of 100 by a two- or three-digit whole number which is a multiple of 10 or 100, (e.g. 400×50, 400×600); and divides three- and four-digit multiples of powers of ten by their compatible factors (e.g. $360/6$; $360/60$; $3,600/6$; $3,600/60$; $3,600/600$)</p>	<p>MA 2.1</p> <p>MA 3.1</p>	<p>open sentence</p> <p>order of operations</p> <p>ordered pair</p> <p>pattern addition</p> <p>pattern subtraction</p> <p>positive number</p> <p>prime factorization</p> <p>prime number</p> <p>product</p> <p>quotient</p> <p>rational numbers</p> <p>relevant information in a problem</p> <p>repeating pattern</p> <p>restate a problem</p> <p>reversing order of operations</p> <p>rounding</p> <p>shrinking pattern</p> <p>subtraction algorithm</p> <p>sum</p> <p>symbolic representation</p> <p>valid argument</p> <p>remainder</p>

UNIT/ORGANIZING PRINCIPLE:	Grade 5: Number and Operation-Base Ten		Pacing:
ESSENTIAL QUESTIONS: Can students read, write, and compare place-value from thousandths to billions? Given a percentage, how do we show its fraction or decimal equivalent? How do you explain the solution you calculated using multiplication or division? NATIONAL STANDARDS: Number and Operations in Base Ten (5.NBT)			
CONCEPTS/CONTENT	LEARNING TARGETS/SKILLS	GLEs	KEY TERMINOLOGY
<p><i>Perform operations with multi-digit whole numbers and with decimals to hundredths.</i></p> <p>Number Sense & Numeration</p>	<p>7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p> <p>Demonstrate an understanding of equivalencies among fractions, decimals and percents.</p> <p>Understand that the product of two whole numbers is greater than either of the factors (if the whole numbers are greater than 1).</p> <p>Understand that when dividing two whole numbers that the quotient will be a number smaller than the dividend (if the whole numbers are greater than 1).</p>	<p>MA 3.2.1 MA 3.3.3 MA 3.1 MA 3.2.1</p>	<p>invalid argument investigation irrelevant information in a problem multiple multiplication negative number numerator odd numbers positive number product quotient rational number relative magnitude restate a problem subtraction algorithm truncation valid argument verbal representation of a problem</p>

UNIT/ORGANIZING PRINCIPLE:	Grade 5: Fractions		Pacing:
ESSENTIAL QUESTIONS: How do you add, subtract, multiply, and divide like and unlike fractions? Which ways do we use fractions to solve real-world problems? What steps did you take NATIONAL STANDARDS - Number and Operations (5.NF)			
CONCEPTS/CONTENT	LEARNING TARGETS/SKILLS	GLEs	KEY TERMINOLOGY
<p><i>Use equivalent fractions as a strategy to add and subtract fractions.</i></p> <p><i>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</i></p>	<p>Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$.)</p> <p>Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$, by observing that $\frac{3}{7} < \frac{1}{2}$.</p> <p>Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret $\frac{3}{4}$ as the result of dividing 3 by 4, noting that $\frac{3}{4}$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $\frac{3}{4}$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</p> <p>Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.a. Interpret the product $(\frac{a}{b}) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. For example, use a visual fraction model to show $(\frac{2}{3}) \times 4 = \frac{8}{3}$, and create a story context for this equation. Do the same with $(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}$. (In general, $(\frac{a}{b}) \times (\frac{c}{d}) = \frac{ac}{bd}$.)</p> <p>b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find</p>	<p>MA 1.1 MA 2.1 MA 3.2.1</p>	<p>addend addition algorithm associative property common denominator common fractions commutative property decimal denominator difference distributive property dividend division equation equivalent forms equivalent fractions equivalent representation estimation estimation of fractions factors fraction</p>

UNIT/ORGANIZING PRINCIPLE:	Grade 5: Fractions	Pacing:	
ESSENTIAL QUESTIONS: Can students add, subtract, multiply, and divide like and unlike fractions? Can students apply their understanding of fractions to real world problems? Can students construct viable arguments to justify why their solutions to operations with fractions are reasonable? NATIONAL STANDARDS - Number and Operations (5.NF)			
CONCEPTS/CONTENT	LEARNING TARGETS/SKILLS	GLEs	KEY TERMINOLOGY
<i>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</i>	<p>5. Interpret multiplication as scaling (resizing), by:</p> <p>a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.</p> <p>b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.</p> <p>6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p> <p>a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.</p> <p>b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.</p> <p>c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. <i>For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?</i></p> <p>Develop conceptual understanding of positive fractional numbers (proper, mixed number, and improper), decimals (to thousandths), or benchmark percents (10%, 25%, 50%, 75%, and 100%) as a part of a whole relationship in area, set, or linear models.</p>	MA 2.1	fraction addition fraction division fraction multiplication fraction subtraction fraction of different size greatest common factor identity property improper fraction inequality inequality solutions invalid argument investigation irrelevant information in a problem

UNIT/ORGANIZING PRINCIPLE:	Grade 5: Measurement and Data		Pacing:
ESSENTIAL QUESTIONS: Can students measure and use units of measure appropriately and consistently and make conversions within systems? How do we accurately and appropriately collect, represent, and interpret data? How do we find the volume of solid figures? What step do we take to find the area and perimeter of polygons and right triangles independently?			
NATIONAL STANDARDS - Measurement and Data (5.MD)			
CONCEPTS/CONTENT	LEARNING TARGETS/SKILLS	GLEs	KEY TERMINOLOGY
<p><i>Convert like measurement units within a given measurement system</i></p> <p><i>Represent and interpret data.</i></p> <p><i>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</i></p>	<ol style="list-style-type: none"> 1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5cm to 0.05 m), and use these conversions in solving multi-step, real world problems. 2. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. <i>For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</i> 3. Recognize volume as an attribute of solid figures and understand: <ol style="list-style-type: none"> a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units. 4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. 5. Related volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume <ol style="list-style-type: none"> a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. 	<p>MA 4.3.1</p> <p>MA 1.1</p> <p>MA 2.1</p>	<p>angle</p> <p>angle measurement tool</p> <p>angle unit</p> <p>area</p> <p>bar graph</p> <p>capacity</p> <p>centimeter</p> <p>certainty</p> <p>chord</p> <p>circumference</p> <p>cluster</p> <p>compass</p> <p>conservation of area</p> <p>constant</p> <p>data</p> <p>data cluster</p> <p>data collection</p> <p>matter</p> <p>diagram</p> <p>diameter</p> <p>elapsed time</p>

UNIT/ORGANIZING PRINCIPLE:	Grade 5: Measurement and Data		Pacing:
<p>ESSENTIAL QUESTIONS:</p> <p>Can students measure and use units of measure appropriately and consistently and make conversions within systems? How do we accurately and appropriately collect, represent, and interpret data? How do we find the volume of solid figures? What step do we take to find the area and perimeter of polygons and right triangles independently?</p> <p>NATIONAL STANDARDS - Measurement and Data (5.MD)</p>			
CONCEPTS/CONTENT	LEARNING TARGETS/SKILLS	GLEs	KEY TERMINOLOGY
	<p>Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.</p> <p>b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.</p> <p>c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</p> <p>Represents and analyzes data using graphs: bar, line, etc.</p> <p>Demonstrates understanding of perimeter of polygons, and the area of rectangles or right triangles</p> <p>Demonstrate an understanding of radius, diameter, chord, and circumference of a circle.</p>	<p>MA 4.2.1</p> <p>MA 4.3</p> <p>MA 5.1.4</p>	<p>estimation of length estimation of height estimation of width event likelihood extreme value gram histogram horizontal axis improbability invalid argument investigation irrelevant information in a problem line graph mass mean measurement measures of central tendency measures of height, width, and length</p>

UNIT/ORGANIZING PRINCIPLE:	Grade 5: Geometry		Pacing:
<p>ESSENTIAL QUESTIONS:</p> <p>Can students classify, identify and compare two dimensional and three dimensional figures? Can students construct, plot, and interpret a coordinate graph? Can students construct graphs to represent, analyze, and extend numerical and geometrical patterns?</p> <p>NATIONAL STANDARDS: Geometry (5.G)</p>			
CONCEPTS/CONTENT	LEARNING TARGETS/SKILLS	GLEs	KEY TERMINOLOGY
<p><i>Classify two-dimensional figures in a hierarchy based on properties.</i></p> <p>3-Dimensional Figures</p>	<p>Uses properties or attributes of angles (right, acute or obtuse) or sides (number of congruent sides, parallelism, or perpendicularity) to identify, describe, classify or distinguish among different types of triangles or quadrilaterals.</p> <p>Construct various 3 dimensional objects such as rectangular and triangular prisms, cones, cylinders and pyramids Use properties or attributes to identify compare or describe three dimensional shapes</p>	<p>MA 1.1 MA 2.1 MA4.1.1 MA 4.2.1 MA 4.2.1</p>	<p>cube cylinder equilateral triangle number of faces obtuse angle parallel lines parallelogram parallelogram formula perpendicular lines prism pyramid rectangle formula rectangular prism rhombus right angle rotation shape symmetry shape transformation sphere triangle formula valid argument</p>

Fifth Grade: Earth & Space Science

	Essential Questions	Objectives
ESS-1	<ul style="list-style-type: none"> • What is the difference between “weather” and “climate”? • Describe the climate in which you live. • What are some factors that influence weather conditions? • What are some major weather events that have occurred in the past? 	<ol style="list-style-type: none"> 1. Relate observed weather conditions to different climates and seasons. 2. Observe and describe weather conditions such as clouds, temperatures, air pressure, and precipitation. 3. Identify events in nature that have repeating patterns or cycles (weather patterns, water cycle). 4. Compare and contrast the various types of common clouds. 5. Explain the composition and structure of the Earth’s atmosphere (exosphere, thermosphere, mesosphere, stratosphere, troposphere).
ESS-2	<ul style="list-style-type: none"> • How does the tilt of the Earth’s axis and the Earth’s revolution around the sun affect seasons? • How does the water cycle work? • How do seasonal, daylight, and weather patterns relate to energy? 	<ol style="list-style-type: none"> 1. Recognize how the tilt of the Earth’s axis and the Earth’s revolution around the sun affects seasons. 2. Investigate different stages in the water cycle (freezing, melting, evaporation, condensation, and precipitation). 3. Identify and describe seasonal, daylight, and weather patterns as they relate to energy.
ESS-3	<i>None at this level</i>	<i>None at this level</i>
ESS-4	<ul style="list-style-type: none"> • How do satellites and Doppler radar help meteorologists observe and predict the weather? • How is the data that you collect from barometers, and anemometers used? 	<ol style="list-style-type: none"> 1. Interpret and summarize short and long term weather data. 2. Organize weather data on graphs and long-term date collection charts. 3. Identify and explain effects human activities have on the atmosphere. 4. Recognize that satellites and Doppler radar can be used to observe or predict the weather. 5. Employ knowledge of basic weather symbols to read and interpret weather and topographic maps. 6. Read and interpret data from barometers and anemometers.

Resources/Activities	Vocabulary
<ul style="list-style-type: none"> • Weather Resource Kit (Keene) • www.education.NOAA.gov (links for teachers and students) • Design a weather instrument • Use a weather website to track and compare weather patterns of different regions and then report results • Track extreme weather and discuss cause and effect <div data-bbox="159 1486 604 1877" style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>A detailed list of the standards (ESS-1 through ESS-4) can be found at the front of this curriculum guide.</p> </div>	<p><i>air pressure</i> – the weight of air pushing on everything around it</p> <p><i>anemometer</i> – an instrument that measures wind speed in revolutions per minute</p> <p><i>atmosphere</i> – the air that surrounds Earth</p> <p><i>barometer</i> – an instrument used for measuring the pressure of the atmosphere</p> <p><i>climate</i> – the usual weather conditions of an area over a long period of time</p> <p><i>condensation</i> – the process of changing from a gas to a liquid</p> <p><i>Doppler radar</i> – a radar tracking system using the Doppler effect to determine the location and velocity of a storm, clouds, precipitation, etc.</p> <p><i>evaporation</i> – the process of changing from a liquid to a gas</p> <p><i>exosphere</i> - the top layer of Earth’s atmosphere</p> <p><i>mesosphere</i> – the layer of the Earth’s atmosphere about 48-80 Km above the surface, between the stratosphere and thermosphere</p> <p><i>meteorologist</i> – a person who studies weather</p> <p><i>precipitation</i> – the rain, snow, sleet, and hail that fall to Earth</p> <p><i>stratosphere</i> – the second layer of the Earth’s atmosphere and is where airplanes fly</p> <p><i>thermosphere</i> – the second highest layer of Earth’s atmosphere</p> <p><i>topographical map</i> –relief features or surface configuration of an area</p> <p><i>troposphere</i> – the layer of atmosphere closest to Earth and where weather occurs</p>

Fifth Grade: Life Science

	Essential Questions	Objectives
LS-1	<ul style="list-style-type: none"> How do organisms compete or cooperate with each other to gain food, resources, and space? 	<ol style="list-style-type: none"> Investigate how populations of animals/plants are affected by their environment. Describe various interactions that occur among organisms (e.g. predatory-prey, symbiotic, producer-consumer-decomposer, host-parasite) to show how organisms compete/cooperate for resources (food, water, space).
LS-2	<ul style="list-style-type: none"> What is an ecosystem? What is photosynthesis? How does photosynthesis affect life forms? How do living and non-living things interact in an ecosystem? How is an ecosystem kept in balance? 	<ol style="list-style-type: none"> Explore through models, experiments, and observations how matter, energy, and organisms interact in any ecosystem. Explain how food webs function within ecosystems (deciduous forest, fresh water, desert). Describe how organisms can acquire energy directly or indirectly from the energy of the sun (photosynthesis and its importance for all life forms). Identify animals and plants that live together in an ecosystem. Explore the adaptive relationships of animals and plants to their habitats (e. g. beaver in a brook, effects of pollution on different species, etc.). Investigate the effect of one or more environmental factors on the viability of a plant or animal. Explain how insects and various other organisms depend on dead plants and animal matter for food, and describe how the process contributes to the system.
LS-3	<ul style="list-style-type: none"> What are the basic requirements for sustaining life? How do ecosystems change? 	<ol style="list-style-type: none"> Identify and describe the basic requirements for sustaining life (water, nutrients, energy source, and physical conditions which can sustain life)
LS-5	<ul style="list-style-type: none"> What effect do environmental conditions have on the survival of individual organisms? What responsibilities do people have toward the environment? 	<ol style="list-style-type: none"> Explain how changes in environmental conditions can affect the survival of individual organisms and the entire species. Recognize how all organisms, including humans, impact their environment, and explain how some changes can be detrimental to other organisms. Identify factors that impact ecosystems, both positive & negative (e.g. dams, air quality, water).

Ecosystems

Resources/Activities	Vocabulary
<ul style="list-style-type: none"> • Create examples of food webs in several types of ecosystems. • Set up a small freshwater ecosystem in an aquarium. Observe the ecosystem and keep records of physical factors and the effects on all living organisms. • Models, experiments, observations • STC: Ecosystems Kit (Keene) • Harris Center (Keene) • Ecology Camp (Ferry Beach in Saco, ME, Nature’s Classroom in Groton, MA or Greenfield, MA *Other locations available, check online) • Boston Aquarium <div data-bbox="167 1402 613 1797" style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>A detailed list of the strands (LS-1 through LS-5) can be found at the front of this curriculum guide.</p> </div>	<p><i>abiotic</i> –characterized by the absence of life (rock, soil)</p> <p><i>adaptation</i> – a structure or behavior that helps an organism survive in its surroundings</p> <p><i>biome</i> – a community of plants and animals that extends over a large area – a biome is largely defined by climate and soil type</p> <p><i>biotic</i> – pertaining to life</p> <p><i>consumer</i> – an organism that survives by eating other organisms</p> <p><i>decomposer</i> – an organism that gets energy by feeding on dead materials and wastes</p> <p><i>ecosystem</i> – all the living and nonliving things that interact with each other in an environment</p> <p><i>food web</i> – overlapping food chains with different pathways for the flow of food energy in an ecosystem</p> <p><i>non-living</i> – the absence of life (examples: air, water, soil, sunlight, rocks, metals)</p> <p><i>parasite</i> – an organism that lives in or on another organism</p> <p><i>photosynthesis</i> – the process of using the energy in sunlight to make food from water and carbon dioxide</p> <p><i>predator</i> – an animal that hunts and eats other animals</p> <p><i>prey</i> – an animal that is hunted or eaten by other animals</p> <p><i>producer</i> – organisms that make their own food by capturing energy from the sunlight (plants, simple organisms, some bacteria) almost all are plants</p> <p><i>symbiosis</i> – two organisms living together</p>

Fifth Grade: Physical Science

	Essential Questions	Objectives
PS-1	<ul style="list-style-type: none"> • What is matter? • What are the states of matter? • What is the difference between a physical change and a chemical change? • What are the properties of matter? • What causes a metal nail to rust? 	<ol style="list-style-type: none"> 1. Describe objects in terms of the materials of which they are made and their physical properties. 2. Recognize that all matter is composed of minute particles called atoms. 3. Explore how the total mass of an object is fixed despite changes in shape. 4. Differentiate between a physical change and a chemical change (water freezing vs. car rusting). 5. Describe objects and events using all senses. 6. Describe characteristics of matter that are common to solids, liquids, and gases, and characteristics that distinguish them as different phases of matter. 7. Explore the physical properties of different household substances and substances in nature. 8. Identify that all living/non-living things are composed of matter. 9. Measure and compare properties, such as color, shape, size, texture, and hardness of a variety of substances. 10. Demonstrate that matter exists in different states that are interchangeable (e.g. melting ice cubes, boiling water). 11. Identify common properties of gases, liquids, and solids.
PS-2	<i>None at this level.</i>	<i>None at this level.</i>
PS-3	<i>None at this level.</i>	<i>None at this level.</i>
PS-4	<i>None at this level.</i>	<i>None at this level.</i>

Resources/Activities	Vocabulary
<ul style="list-style-type: none"> Design an experiment using the scientific method that involves a chemical reaction Matter Kit (Keene) 	<p><i>atom</i> – the smallest particle of a substance that has all the properties of that substance</p> <p><i>chemical change</i> - a change that produces a new substance</p> <p><i>gas</i> – a state of matter in which the substance takes both the shape and volume of its container</p> <p><i>liquid</i> – a state of matter in which the substance has a definite volume that takes the shape of its container</p> <p><i>matter</i> – anything that has weight, takes up space, and is described by its properties</p> <p><i>physical change</i> – a change from one form to another form without turning into a new substance</p> <p><i>property</i> – a characteristic of substance (ex. Size, shape, color, weight, texture, smell)</p> <p><i>solid</i> – a state of matter in which the substance has a defined shape and a definite volume</p>

A detailed list of the strands (PS-1 through PS-4) can be found at the front of this curriculum guide.

	Essential Questions	Objectives <i>Students need to know:</i>
Alcohol	<p>What are the benefits of being drug free?</p> <p>What are ways to say no to drugs?</p> <p>Who /what are the resources to support saying no to drugs?</p>	<p>2.5 Benefits of not using AOD (physical, social, emotional, legal, and financial)</p> <p>4.1 How to accept personal responsibility for personal choices about alcohol and other drugs.</p> <p>4.2 How to make a personal commitment not to use drugs.</p> <p>5.1 Refusal skills</p> <p>5.2 How to get help to deal with pressure to use</p> <p>3.1-3.6 The influences on alcohol and drug use</p>
Comm/Enviro Health	<i>Not at this level</i>	<i>Not at this level</i>
Family Life & Sexuality	<p>What is Puberty?</p> <p>What are the physical, social and emotional changes in puberty?</p> <p>What are the resources for puberty?</p> <p>What are the facts about HIV?</p>	<p>2.1-2.4 Changes during puberty</p> <p>1.2-1.4, 1.8 (PH Standards) Personal hygiene during puberty and the importance of getting enough sleep</p> <p>Resources for accurate information</p> <p>3.1-3.4 About HIV (Student needs to identify that HIV is a disease, has no cure, is not transmitted through casual contact, and the importance of having compassion for people with HIV)</p>
Injury Prevention	<p>How do you identify the difference between an emergency and a non emergency ?</p> <p>How do you treat a minor wound or burn?</p>	<p>3.1 How to get help</p> <p>3.2 Steps for helping others</p> <p>3.3 Infection control procedures (Universal Precautions- do not touch others blood)</p> <p>3.8 How to treat minor wounds and burns</p>
Mental Health	Not at this level see Family life Sexuality	

Skills linked to assessment	Resources	
Decision making Accessing Information (Alcohol)	http://kidshealth.org/classroom http://kidshealth.org http://www.NChealthyschools.org	Alcohol
<i>Not at this level</i>	<i>Not at this level</i>	Comm/Envi ro Health
Accessing Information Family Life/Sexuality)	http://kidshealth.org/classroom http://kidshealth.org http://www.NChealthyschools.org	Family Life & Sexuality
Self management (Injury Prevention)	http://kidshealth.org/classroom http://kidshealth.org http://www.NChealthyschools.org	Injury Prevention
See Family Life and Sexuality (Mental Health)		Mental Health

	Essential Questions	Objectives <i>Students need to know:</i>
Nutrition	<p>How do you read a food label?</p> <p>How do we balance food intake and activity?</p>	<p>2.1 How to read food labels</p> <p>4.1 The relationship between consuming food (calories) and weight management.</p>
Pers/Consumer Health	<p>What are the resources available to our community that provide medical care?</p>	<p>3.4 Identify a variety of health care provider roles</p>
Physical Activity	<p>What is healthful physical activity?</p>	<p>1.2 Phases of a workout</p> <p>1.3 Types of exercise</p> <p>1.4 How to develop personal plans that include a variety.</p> <p>1.5 How to develop personal plans including my personal preferences.</p> <p>(Covered in Physical Education Class)</p>
Tobacco	<p>What are ways to resist pressure to use tobacco?</p>	<p>3.2 Ways to resist pressure to use tobacco</p> <p>3.3 Ways to encourage others not to use tobacco</p>

Skills linked to assessment	Resources	
Accessing Information (Nutrition)	http://kidshealth.org/classroom http://kidshealth.org http://mypyramid.gov http://kidnetic.com http://www.NChealthyschools.org	Nutrition
Self Management (Peer Consumer)	http://kidshealth.org/classroom http://kidshealth.org http://www.NChealthyschools.org	Pers/Consumer Health
Self management (Physical Activity)	PE Class http://kidshealth.org/classroom http://kidshealth.org http://www.NChealthyschools.org	Physical Activity
Decision Making Self Management Advocacy (Tobacco)	http://kidshealth.org/classroom http://kidshealth.org http://www.NChealthyschools.org Cheshire Coalition for a Tobacco Free Community	Tobacco

SAU29 SOCIAL STUDIES CURRICULUM

Grade: 5

Unit: United States Regions

Essential Questions:

What are the five themes of geography?

How do the five themes of geography help us understand the United States?

Objectives: Students will be able to...

Apply map skills such as location, distance, scale, direction, movement, and region.

Absolute and Relative Location:

Locate and label the five political geographic regions of the U.S.

Utilize lines of latitude and longitude to describe the location of these regions

Place:

Identify the physical features and geographic terms that are unique to each region

Examine the population demographics, culture, and history of each region

Human Environment/ Interaction:

List the natural resources associated with each region and examine how they affect the economy

Explore different ways humans have changed the environment (highways, buildings)

Movement of Ideas, People, Goods:

Describe ways that immigration has impacted the culture and history of each region

Identify major regional imports and exports

Region

Compare and contrast the five political geographic regions of the U.S.

Label, from memory, the states within each region

State Standards addressed:

Geography: SS:GE:6:1.1, SS:GE:6:1.2, SS:GE:6:1.3, SS:GE:6:2.1, SS:GE:6:2.2, SS:GE:6:3.3, SS:GE:6:3.4, SS:GE:6:5.1, SS:GE:6:5.2, SS:GE:6:5.3, SS:GE:6:5.4, SS:GE:6:4.1, SS:GE:6:4.2, SS:GE:6:4.3, SS:GE:6:4.4, SS:GE:6:4.5

US/NH History: SS:HI:6:3.1, SS:HI:6:4.1, SS:HI:6:4.3, SS:HI:6:5.1, SS:HI:6:5.2, SS:HI:6:5.4

World History: SS:WH:6:3.1, SS:WH:6:2.1, SS:WH:6:2.2, SS:WH:6:2.3, SS:WH:6:5.4

Economics: SS:EC:6:2.2

Essential Skills for Social Studies addressed:

(From the NH Social Studies Curriculum Frameworks)

Acquiring Information:

Students will use economic and geographic data, historical sources, as well as other appropriate sources.

Students will utilize various types of sources such as documents, charts, images, artifacts and maps.

Organizing and communicating information:

Students will be able to clarify information by placing data on charts, graphs or illustrations.

Real World Applications of Social Studies Skills

Students will develop civic participation skills by keeping informed on issues that affect society.

Essential Vocabulary:

Geographic Terms:

bay, canal, cape, delta, desert, ecosystems, elevation, geography, gulf, landforms, peninsula, plain, plateau, tributary, valley, volcano, canyon, mesa, panhandle

Economic Terms:

agriculture, cash crops, economy, import, export, industry, irrigation, natural resources, commerce, plantation, producer, consumer, barter, capital, scarcity

Map Elements:

mental map (mapping from memory), atlas, equator, hemisphere, cardinal directions, legend/key, scale, physical/political/ topographic map, latitude/parallel, longitude/meridian, Tropic of Cancer, Tropic of Capricorn

Political/Cultural:

culture, ethnicity, immigrant, migration, region, tradition, urban/rural, capitols, population density, values

Essential People/Places

Northeast: Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

Southeast: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

Southwest: Arizona, New Mexico, Oklahoma, Texas

West: Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming.

Essential Concepts:

Five Themes of Geography:

location (absolute/relative)
place (human/physical)
human-environment
movement (ideas, people, goods)
region (physical/political)

Grade:

Course:

Unit:

Activities/Projects:

Assessments:

Resources and Materials:

SAU29 SOCIAL STUDIES CURRICULUM

Grade: 5

Unit: Canada

Essential Questions:

What are the five themes of geography?

How do the five themes of geography help us understand Canada?

Objectives: Students will be able to...

Apply map skills such as location, distance, scale, direction, movement, and region.

Absolute and Relative Location:

Locate and label the six physical regions of Canada

Utilize lines of latitude and longitude to describe the location of these regions

Place:

Identify the physical features and geographic terms that are unique to each region

Examine the population demographics, culture, and history of each region

Human Environment/ Interaction:

List the natural resources associated with each region and examine how they affect the economy

Explore different ways humans have changed the environment (highways, buildings)

Movement of Ideas, People, Goods:

Describe ways that immigration has impacted the culture and history of each region

Identify major regional imports and exports

Region

Compare and contrast the six physical regions of Canada

Grade:

Course:

Unit:

Activities/Projects:

Assessments:

Essential Skills for Social Studies addressed:

(From the NH Social Studies Curriculum Frameworks)

Acquiring Information:

Students will use economic and geographic data, historical sources, as well as other appropriate sources. Students will utilize various types of sources such as documents, charts, images, artifacts and maps. Students will be able to recognize and understand relevant social studies terms.

Organizing and communicating information:

Students will be able to clarify information by placing data on charts, graphs or illustrations. Students will begin to form an opinion based on critical examination of relevant information.

Real World Applications of Social Studies Skills

Students will develop civic participation skills by keeping informed on issues that affect society.

State Standards addressed:

Geography: SS:GE:6:1.2, SS:GE:6:1.3, SS:GE:6:2.1, SS:GE:6:2.2, SS:GE:6:3.3, SS:GE:6:3.4, SS:GE:6:5.1, SS:GE:6:5.2, SS:GE:6:5.3, SS:GE:6:5.4, SS:GE:6:4.1, SS:GE:6:4.2, SS:GE:6:4.3, SS:GE:6:4.4, SS:GE:6:4.5

World History: SS:WH:6:1.1, SS:WH:6:2.1, SS:WH:6:2.2, SS:WH:6:2.3, SS:WH:6:5.4

Economics: SS:EC:6:2.2

Civics and Government: SS:CV:6:1.4, SS:CV:6:3.1, SS:CV:6:3.2

Essential Vocabulary:

Climate:

arctic, permafrost, sub arctic, temperate

Economics/Natural Resources:

timber, fish, hydroelectricity, metals, agriculture, potash, St. Lawrence Seaway, import, export, capital, scarcity

Geographic Terms:

escarpment, fjord, glacier, plain, prairie, grassland, river mouth, river source, sound, tributary, tundra, ice cap, permafrost

Political/Cultural:

bilingual, native people (Inuit), provinces, territories, parliament, prime minister

Essential People:

Inuit/French

Essential Places:

Physical/Political Regions:

Appalachian/Atlantic

Arctic Lowlands

Canadian Shield

Cordillera/Pacific Coast

Interior Plains/Prairies

St. Lawrence Lowlands/Great Lakes

Essential Events/Issues:

Major landforms

Climate

Natural Resources

Cultural Traditions and influences (e.g. food, languages, past times, art, etc.)

Historical development

Government (compare/contrast Canada vs. U.S.)

Economics (imports, exports, trade partners)

SAU29 SOCIAL STUDIES CURRICULUM

Grade: 5

Unit: Latin America

Essential Questions:

What are the five themes of geography?

How do the five themes of geography help us understand Latin America?

Objectives: Students will be able to...

Apply map skills such as location, distance, scale, direction, movement, and region.

Absolute and Relative Location:

Locate and label the countries of Latin America

Utilize lines of latitude and longitude to describe the location of these countries

Place:

Identify the physical features and geographic terms that are unique to Latin America

Examine the population demographics, culture, and history of Latin America

Human Environment/ Interaction:

List the natural resources found in these countries and examine how they affect the economy

Explore different ways humans have changed the environment (highways, buildings)

Movement of Ideas, People, Goods:

Describe ways that immigration has impacted the culture and history

Identify major imports and exports

Region

Compare and contrast the five political geographic regions of the U.S.

Label, from memory, the states within each region

State Standards addressed:

Geography: SS:GE:6:1.2, SS:GE:6:1.3, SS:GE:6:2.1, SS:GE:6:2.2, SS:GE:6:3.3, SS:GE:6:3.4, SS:GE:6:5.1, SS:GE:6:5.2, SS:GE:6:5.3, SS:GE:6:5.4, SS:GE:6:4.1, SS:GE:6:4.2, SS:GE:6:4.3, SS:GE:6:4.4, SS:GE:6:4.5

World History: SS:WH:6:1.1, SS:WH:6:2.1, SS:WH:6:2.2, SS:WH:6:2.3, SS:WH:6:5.1, SS:WH:6:5.4

Economics: SS:EC:6:2.2

Civics and Government: SS:CV:6:1.4, SS:CV:6:3.1, SS:CV:6:3.2

Essential Skills for Social Studies addressed:

(From the NH Social Studies Curriculum Frameworks)

Acquiring Information:

Students will use economic and geographic data, historical sources, as well as other appropriate sources.

Students will utilize various types of sources such as documents, charts, images, artifacts and maps. Students will be able to recognize and understand relevant social studies terms.

Organizing and communicating information:

Students will be able to clarify information by placing data on charts, graphs or illustrations.

Students will begin to form an opinion based on critical examination of relevant information.

Real World Applications of Social Studies Skills

Students will develop civic participation skills by keeping informed on issues that affect society.

Essential Vocabulary:

Climate:

rain shadow, subtropical, tropical

Economics:

natural resources, import, export, deforestation, rain forest, slash and burn, hacienda, encomienda systems

Geographic Terms:

archipelago, basin, cordillera, isthmus, strait, biodiversity, canopy, hemisphere

Political/Cultural: diversity, gauchos, mestizo, urban, rural, indigenous, poverty

Essential People/Places:

Spanish/Portuguese settlements, conquistadors

Countries & Regions:

Middle America (Mexico and Central America)

Caribbean

South America

Physical regions:

Amazon River Basin, Andes Mtns., Pampas plains, Patagonia plateau, Rio de la Platat (estuary)

Essential Events/Issues:

Major landforms

Climate

Natural Resources

Cultural Traditions and influences (e.g. food, languages, past times, art, etc.)

Historical development

Government

Economics (imports, exports, trade partners)

Activities/Projects:

Assessments:

SAU29 SOCIAL STUDIES CURRICULUM

Grade: 5

Unit: Government and Citizenship

Essential Questions:

How can you be a responsible citizenship?

How does the government protect individual rights and the well being of the nation?

Why is the democratic process important to us?

Objectives: Students will be able to...

Identify qualities, characteristics, and activities of citizenship.

Identify key historical events that lead to the creation of our government.

Describe and compare the three branches of government.

Describe institutions and people which make, apply and enforce rules and laws.

Discuss the United States Constitution and Bill of Rights.

Essential Vocabulary:

amend
amendment
ballot
bill
checks & balances
citizen
citizenship
democracy
election
electoral college
executive
federalism
government
house of representatives
judicial
justice
law/ act
legislature
nation
political parties
president
primary
republic
representative
responsibilities
rights
senate
separation of powers
supreme court
veto
vote

Essential Topics:

Declaration of Independence

Constitution

Bill of Rights

Checks & Balances

Three Branches of Government

Voting Rights

State and federal taxes

Law enforcement

Essential People:

Current local, state and federal representatives.

Grade: _____ **Course:** _____
Unit: Government and Citizenship

State Standards addressed:

Civics and Government: SS:CV:6:1.1, SS:CV:6:1.2, SS:CV:6:1.3, SS:CV:6:2.1, SS:CV:6:2.2, SS:CV:6:4.1,

Essential Skills for Social Studies addressed:

(From the NH Social Studies Curriculum Frameworks)

Acquiring Information:

Students will utilize various types of sources such as documents, charts, images, artifacts and maps.

Recognize and understand relevant social studies terms.

Organizing and Communicating Information

Students will be able to group data in categories according to appropriate criteria.

Real World Applications of Social Studies Skills

Students will develop civic responsibility by keeping informed on issues that affect society.

Students will begin to identify situations in which civic action is required.

Grade:
Unit:

Course:

Activities/Projects:

Assessments:

Resources and Materials: