The Shape of Things			<b>Activity 1/Diversity</b>		
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
<u>VI.A.1.b</u>	Begins to identify and make observations about what can be learned about the world using each of the five senses	SC	PreK-K	3	-
VI.A.3.b	Collects and records data through drawing, writing, dictation and taking photographs (e.g., using tables, charts, drawings, tallies and graphs)	SC	PreK-K	2	-
<u>VI.A.3.d</u>	Shares findings and outcomes of experiments	SC	PreK-K	1	-
SC.K.N.1.1	Collaborate with a partner to collect information	SC	PreK-K	3	1
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	PreK-K	2	2
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features.	SC	PreK-K	2	3
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	PreK-K	2	2
LAFS.K.SL.2.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.	LA	PreK-K	2	3
<u>V.D.1</u>	Recognizes and names two-dimensional shapes (circle, square, triangle and rectangle) of different size and orientation	MA	PreK-K	2	-
<u>V.D.2</u>	Describes, sorts and classifies two- and three-dimensional shapes using some attributes such as size, sides and other properties (e.g., vertices)	MA	PreK-K	2	-
MAFS.K.G.1.2	Correctly name shapes regardless of their orientations or overall size.	MA	PreK-K	2	1
MAFS.K.G.1.1	Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such_as <i>above</i> , <i>below</i> , <i>beside</i> , <i>in front of</i> , <i>behind</i> , <i>and next to</i> .	MA	PreK-K	2	2
MAFS.K.G.2.4	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe _their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).	MA	PreK-K	2	3

	Part B				
SC.K.N.1.1	Collaborate with a partner to collect information.	SC	K-3	1	1
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	K-3	3	2
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features.	SC	K-3	2	3
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	K-3	2	5
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	K-3	3	2
SC.K2.CS- CP.1.4	Create data visualizations (e.g., charts and infographics), individually and collaboratively.	SC	K-3	1	_
SC.35.CS- CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	K-3	1	-
SC.35.CS- CP.3.2	Present digitally created products, either individually and collaboratively, where a topic, concept, or skill is carefully_analyzed or thoughtfully explored.	SC	K-3	1	-
SC.2.P.8.1	Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, sinking or floating in water, and attraction and repulsion of magnets.	SC	K-3	2	1
SC.3.P.8.3	Compare materials and objects according to properties such as size, shape, color, texture, and hardness.	SC	K-3	2	2
LAFS.K.SL.2.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.	LA	K-3	2	3
LAFS.1.SL.2.5	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	LA	K-3	2	2
MAFS.K.G.1.2	Correctly name shapes regardless of their orientations or overall size.	MA	K-3	3	1
MAFS.K.G.2.4	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).	MA	K-3	2	3

MAFS.2.G.1.1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	MA	K-3	2	1
Get in Tou	ich with Trees		Activ	vity 2/Di	iversity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
<u>VI.A.1.b</u>	Begins to identify and make observations about what can be learned about the world using each of the five senses	SC	PreK-6	3	-
SC.K.N.1.1	Collaborate with a partner to collect information	SC	PreK-6	1	1
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	PreK-6	3	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	PreK-6	2	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	PreK-6	2	2
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	PreK-6	2	2
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	PreK-6	2	3
SC.3.P.8.3	Compare materials and objects according to properties such as size, shape, color, texture, and hardness.	SC	PreK-6	1	2
SC.35.CS- CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	PreK-6	1	-
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	PreK-6	1	2
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	PreK-6	1	3

LAFS.K.L.3.5	<ul> <li>With guidance and support from adults, explore word relationships and nuances in word meanings.</li> <li>a. Sort common objects categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.</li> <li>b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).</li> <li>c. Identify real-life connections between words and their use (e.g., note places at school that are colorful).</li> <li>d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings.</li> </ul>	LA	PreK-6	2	3
LAFS.2.L.3.5	<ul> <li>Demonstrate understanding of word relationships and nuances in word meanings.</li> <li>a. Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).</li> <li>b. Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).</li> </ul>	LA	PreK-6	2	3
LAFS.1.L.3.5	<ul> <li>With guidance and support from adults, demonstrate understanding, word relationships and nuances in word meanings.</li> <li>a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.</li> <li>b. Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes).</li> <li>c. Identify real-life connections between words and their use (e.g., note places at home that are cozy).</li> <li>d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings</li> </ul>	LA	PreK-6	2	2
LAFS.4.L.3.5	Demonstrate understanding of word relationships, and nuances in word meanings.  a. Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context.  b. Recognize and explain the meaning of common idioms, adages, and proverbs.	LA	PreK-6	2	3

	c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).				
LAFS.5.L.3.5	<ul> <li>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</li> <li>a. Interpret figurative language, including similes and metaphors, in context.</li> <li>b. Recognize and explain the meaning of common idioms, adages, and proverbs.</li> <li>c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.</li> </ul>	LA	PreK-6	2	3
LAFS.6.L.3.5	<ul> <li>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</li> <li>a. Interpret figures of speech (e.g., personification) in context.</li> <li>b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.</li> <li>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, unwasteful, thrifty).</li> </ul>	LA	PreK-6	2	3
LAFS.1.W.1.2	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	LA	PreK-6	2	3
LAFS.2.W.1.2	Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.	LA	PreK-6	2	3
LAFS.3.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, and details.</li> <li>c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.</li> <li>d. Provide a concluding statement or section.</li> </ul>	LA	PreK-6	2	3

LAFS.4.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	PreK-6	2	2
LAFS.5.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	PreK-6	2	2
LAFS.6.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> </ul>	LA	PreK-6	2	4

- c. Use appropriate transitions to clarify the relationships among ideas and concepts.
- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e. Establish and maintain a formal style.
- f. Provide a concluding statement or section that follows from the information or explanation presented.

## **Peppermint Beetle**

### **Activity 3/Diversity**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
<u>VI.A.1.b</u>	Begins to identify and make observations about what can be learned about the world using each of the five senses.	SC	PreK-6	3	-
SC.K.N.1.1	Collaborate with a partner to collect information.	SC	PreK-6	2	2
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	PreK-6	3	3
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	PreK-6	2	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	PreK-6	3	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	PreK-6	2	2
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	PreK-6	1	2
SC.2.N.1.5	Distinguish between empirical observation (what you see, hear, feel, smell, or taste) and ideas or inferences (what you think).	SC	PreK-6	1	2
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	PreK-6	1	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	PreK-6	1	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	PreK-6	1	3
SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.	SC	PreK-6	1	2

SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	PreK-6	1	3
Sounds Ar	round		Activ	ity 4/D	iversity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
<u>VI.A.1.b</u>	Begins to identify and make observations about what can be learned about the world using each of the five senses	SC	PreK-K	3	-
<u>VI.A.3.b</u>	Collects and records data through drawing, writing, dictation and taking photographs (e.g., using tables, charts, drawings, tallies and graphs)	SC	PreK-K	1	-
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses	SC	PreK-K	3	2
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features.	SC	PreK-K	2	3
	Part B				
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	1-6	2	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	1-6	3	1
SC.35.CS- CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	1-6	2	-
	Part C				
SC.6.N.1.5	Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.	SC	6-8	2	2

SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	6-8	2	2
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	6-8	2	2
SS.7.C.2.12	Develop a plan to resolve a state or local problem by researching public policy alternatives, identifying appropriate government agencies to address the issue, and determining a course of action.	SS	6-8	3	-
SS.7.C.2.14	Conduct a service project to further the public good.	SS	6-8	3	-
	Part D				
LAFS.3.RL.1.2	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.	LA	3-8	2	2
<b>Poet-Tree</b>			Activ	ity 5/Di	versity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
LAFS.5.L.3.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. Interpret figurative Interpret figurative language, including similes and metaphors, in context, etc.	LA	3-8	2	3
LAFS.6.L.3.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. Interpret figures of speech (e.g., personification) in context, etc.	LA	3-8	2	3
LAFS.7.L.3.5	Demonstrate understanding of figurative language, word relationships, and	т А	3-8	2	3
<u> </u>	nuances in word meanings. Interpret figures of speech (e.g., personification) in context, etc.	LA	3-8	2	3
<u>LAFS.8.L.3.5</u>		LA	3-8	2	3

VI.B.1.b	Notices the similarities and differences among various living things	SC	PreK-1	2	-
<u>VI.B.1.a</u>	Identifies characteristics of a variety of plants and animals including physical attributes and behaviors (e.g., camouflage, body covering, eye color, other adaptations, types of trees and where they grow)	SC	PreK-1	2	-
	Part A				
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
Picture Th	is!		Activ	ity 6/Di	versity
<u>LAFS.8.RL.2.4</u>	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	LA	3-8	2	3
LAFS.8.RI.2.4	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.	LA	3-8	2	2
<u>LAFS.7.RL.2.4</u>	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.	LA	3-8	2	3
<u>LAFS.K12.R.2.</u> <u>4</u>	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings and analyze how specific word choices shape meaning or tone.	LA	3-8	2	2
<u>LAFS.7.RI.2.4</u>	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	LA	3-8	2	2
LAFS.6.RL.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.	LA	3-8	2	3
LAFS.6.RI.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.	LA	3-8	2	2

SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics	SC	3-6	3	2
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
Habitat Pe	en Pals		Activ	ity 7/Di	iversity
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics	SC	1-5	1	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	1-5	1	2
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	1-5	1	2
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	1-5	1	1
	Part B				
MAFS.K.MD.2. <u>3</u>	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	MA	PreK-1	2	2
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	PreK-1	2	2
SC.1.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light), texture, and whether objects sink or float.	SC	PreK-1	2	2
SC.K.P.12.1	Investigate that things move in different ways, such as fast, slow, etc.	SC	PreK-1	2	3
SC.K.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.	SC	PreK-1	2	2
<u>VI.D.1.b</u>	Discovers, explores, sorts, compares, and contrasts objects that are naturally found in the environment, including rocks, soil, sand and mud, and recognizes relationships among the objects (e.g., nature walks with hand lenses, collection bag) (e.g., rocks, twigs, leaves and sea shells)	SC	PreK-1	2	-

SC.4.N.1.2	Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.	SC	Grades 4-6	Activity 2	Complexity 3
Standard	Description	Subject	Target	Level of	Level of
<b>Planet Div</b>	ersity		Activ	ity 9/Di	versity
LAFS.1.RI.1.2	Identify the main topic and retell key details of a text.	LA	1-6	3	2
LAFS.1.RL.1.2	Retell stories, including key details, and demonstrate understanding of their central message or lesson.	LA	1-6	3	2
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics	SC	1-6	2	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	1-6	2	2
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexi
The Forest	of S.T. Shrew		Activ	ity 8/Di	iversity
SS.3.G.3.1	Describe the climate and vegetation in the United States, Canada, Mexico, and the Caribbean.	SS	3-6	2	2
LAFS.K12.W.2. 4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	3-6	3	3
<u>LAFS.K12.W.1.</u> <u>3</u>	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and	LA	3-6	3	3

Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles

variations, animal behaviors and physical characteristics.

SC.5.L.17.1

2

SC

4-6

2

SC.5.N.1.3	Recognize and explain the need for repeated experimental trials.	SC	4-6	1	2
SC.5.N.2.2	Recognize and explain that when scientific investigations are carried out, the evidence produced by those investigations should be replicable by others.	SC	4-6	1	2
SC.6.N.1.2	Explain why scientific investigations should be replicable.	SC	4-6	1	3
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	4-6	3	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic	LA	4-6	3	4
<u>LAFS.68.RST.1.</u> <u>3</u>	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	LA	4-6	2	2
<u>LAFS.68.RST.3.</u> <u>9</u>	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained	LA	4-6	3	3
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: reporting the number of observations, etc.	MA	4-6	2	3

## **Charting Diversity**

## **Activity 10/Diversity**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	4-8	3	2
SC.35.CS- CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	4-8	3	-
SC.35.CS- CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	4-8	3	-
SC.35.CS- CS.3.2	Create an artifact (independently and collaboratively) that answers a research question clearly communicating thoughts and ideas.	SC	4-8	3	-
SC.68.CS- PC.3.1	Answer research questions using digital information resources.	SC	4-8	3	-
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	4-8	2	-

SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	4-8	3	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	4-8	3	4
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	4-8	3	2
<u>LAFS.68.WHST</u> .3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	4-8	3	4
Can It Be F	Real?		Activi	ty 11/D	iversity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	SC	4-8	2	3
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	4-8	3	2
SC.7.L.15.3	Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.	SC	4-8	2	3
SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	4-8	1	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	4-8	3	4
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	4-8	3	2

<u>LAFS.68.WHST</u> <u>.3.7</u>	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	4-8	3	4
<u>LAFS.K12.SL.2</u> .5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	4-8	3	2

#### **Invasive Species Activity 12/Diversity Target** Level of Level of Standard **Description Subject** Grades **Activity Complexity** Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles SC 5-8 SC.5.L.17.1 3 2 variations, animal behaviors and physical characteristics Identify, research, and collect a data set on a topic, issue, problem, or SC.35.CS-5-8 3 SC question using age-appropriate technologies. CP.1.3 SC.35.CS-Create an artifact (independently and collaboratively) that answers a SC 5-8 3 CS.3.2 research question clearly communicating thoughts and ideas. SC.68.CS-SC 5-8 Answer research questions using digital information resources. 3 PC.3.1 SC.68.CS-Create an artifact (independently and collaboratively) that answers a SC 5-8 3 CP.3.3 research question and communicates results and conclusions. Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, SC 5-8 SC.7.L.17.3 2 3 disease, parasitism, predation, and nesting sites. Conduct short research projects that build knowledge through investigation LAFS.4.W.3.7 LA 5-8 3 4 of different aspects of a topic. Conduct short research projects that use several sources to build knowledge 5-8 LAFS.5.W.3.7 LA 3 2 through investigation of different aspects of a topic.

Conduct short research projects to answer a question (including a self-

information and enhance understanding of presentations.

generated question), drawing on several sources and generating additional

related, focused questions that allow for multiple avenues of exploration.

Make strategic use of digital media and visual displays of data to express

LAFS.68.WHST

LAFS.K12.SL.2

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LA

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3

We All Nee	ed Trees		Activit	y 13/Di	versity					
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity					
Part A										
VI.E.1.a	Demonstrates how people use objects and natural resources in the environment.	SC	PreK-1	2	-					
SC.K.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.	SC	PreK-1	2	2					
SC.1.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light), texture, and whether objects sink or float.	SC	PreK-1	2	2					
	Part B									
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	2-6	1	2					
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	2-6	2	3					
SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.	SC	2-6	1	2					
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic	LA	2-6	2	4					
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	2-6	2	2					
LAFS.K12.SL.1.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	LA	2-6	3	2					
CTE- AFNR.68.ENVI RO.05.02	Describe the importance of forests and forest products	СТЕ	2-6	3	-					
<u>CTE-</u> <u>AFNR.68.PLAN</u> <u>T.05.12</u>	Describe the importance of forests and forest products.	СТЕ	2-6	3	-					

Renewab	le or Not?		Activit	y 14/Di	versity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	4-8	3	2
SC.4.N.1.1	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	4-8	2	3
SS.7.G.3.1	Use maps to describe the location, abundance, and variety of natural resources in North America.	SS	4-8	2	-
SS.8.G.3.2	Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in the United States and Florida over time.	SS	4-8	2	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	4-8	3	-
A Few of	My Favorite Things		Activit	ty 15/Di	versity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	2-8	2	2
SC.4.E.6.6	Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).	SC	2-8	2	1
SS.2.E.1.1	Recognize that people make choices because of limited resources.	SS	2-8	3	-
SS.3.G.3.2	Describe the natural resources in the United States, Canada, Mexico, and the Caribbean.	SS	2-8	2	-
SS.8.G.3.2	Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in the United States and Florida over time.	SS	2-8	2	-

SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	2-8	3	-
Pass the Pla	ants, Please	A	ctivity	16/Dive	rsity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.	SC	K-8	2	1
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	SC	K-8	2	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	K-8	3	4
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	K-8	3	2
<u>LAFS.68.WHST</u> <u>.3.7</u>	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	K-8	3	4
	Part B				
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	3-8	2	2
SC.4.L.17.1	Compare the seasonal changes in Florida plants and animals to those in other regions of the country.	SC	3-8	1	2
SC.35.CS- CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	3-8	3	-
MAFS.2.MD.4.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories.	MA	3-8	3	2
People of tl	ne Forest		Activity	y <b>17/Div</b>	ersity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CS.3.2	Create an artifact (independently and collaboratively) that answers a research question clearly communicating thoughts and ideas.	SC	5-8	3	-

SC.68.CS- PC.3.1	Answer research questions using digital information resources.	SC	5-8	3	-
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	5-8	3	-
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	5-8	2	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	5-8	2	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	5-8	3	2
<u>LAFS.68.WHST</u> .3.7	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	5-8	3	4
LAFS.K12.SL.2.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	5-8	3	2
SS.6.G.2.1	Explain how major physical characteristics, natural resources, climate, and absolute and relative locations have influenced settlement, interactions, and the economies of ancient civilizations of the world.	SS	5-8	3	-
Tale of the	Sun		Activit	y 18/Di	versity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.	SC	K-6	1	2
LAFS.2.RL.1.2	Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	LA	K-6	3	3
LAFS.3.RL.1.2	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.	LA	K-6	3	2

SS.3.G.4.2	Identify the cultures that have settled the United States, Canada, Mexico, and the Caribbean.	SS	K-6	1	-
Viewpoints	s on the Line		Activity	/ <b>19/Div</b>	ersity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.	SC	6-8	2	2
SC.6.N.2.1	Distinguish science from other activities involving thought.	SC	6-8	2	2
SC.7.N.1.7	Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.	SC	6-8	3	2
LAFS.68.RH.3.8	Distinguish among fact, opinion, and reasoned judgment in a text.	LA	6-8	2	3
Environmo	ental Exchange Box		Activit	ty 20/Di	versity
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	5-8	3	-
SC.35.CS- CS.3.2	Create an artifact (independently and collaboratively) that answers a research question clearly communicating thoughts and ideas.	SC	5-8	3	-
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	5-8	3	-
LAFS.5.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> </ul>	LA	5-8	2	2

	e. Provide a concluding statement or section related to the information or explanation presented.				
LAFS.6.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from the information or explanation presented.</li> </ul>	LA	5-8	2	4
LAFS.7.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	5-8	2	4

LAFS.8.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	5-8	2	4	
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Adopt a Tree Activity 21/Interrelationshi					nships
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
<u>VI.A.1.b</u>	Begins to identify and make observations about what can be learned about the world using each of the five senses	SC	PreK-2	3	-
<u>VI.B.1.a</u>	Identifies characteristics of a variety of plants and animals including physical attributes and behaviors (e.g., camouflage, body covering, eye color, other adaptations and types of trees and where they grow)	SC	PreK-2	2	-
<u>VI.B.1.b</u>	Notices the similarities and differences among various living things	SC	PreK-2	2	-
VI.B.1.d	Begins to distinguish between living and non-living things	SC	PreK-2	2	-
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	PreK-2	3	2
SC.K.L.14.3	Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do.	SC	PreK-2	3	2
SC.1.L.14.3	Differentiate between living and nonliving things.	SC	PreK-2	2	3

SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	PreK-2	3	2
MAFS.K.MD.1.2	Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.	MA	PreK-2	2	2
	Part B				
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	3-8	3	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	3-8	3	3
SC.5.N.1.1	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-8	3	3
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-8	3	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-8	3	3

SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-8	3	3
MAFS.6.SP.2.5	<ul> <li>Summarize numerical data sets in relation to their context, such as by:</li> <li>a. Reporting the number of observations.</li> <li>b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.</li> <li>c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.</li> <li>d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.</li> </ul>	SC	3-8	3	3

Trees as Habitats		Activity	<b>22/Inte</b>	rrelatio	nships
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
<u>VI.A.1.b</u>	Begins to identify and make observations about what can be learned about the world using each of the five senses.	SC	PreK-2	3	-
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	PreK-2	3	2
SC.K.N.1.3	Keep records as appropriate such as pictorial records of investigations conducted.	SC	PreK-2	2	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	PreK-2	3	1
SC.1.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations.	SC	PreK-2	2	3

SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	PreK-2	2	2
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	PreK-2	2	2
SC.2.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration and systematic observations, and generate appropriate explanations based on those explorations.	SC	PreK-2	2	3
LAFS.K.RI.1.1	With prompting and support, ask and answer questions about key details in a text.	LA	PreK-2	2	2
LAFS.1.RI.1.1	Ask and answer questions about key details in a text.	LA	PreK-2	2	2
LAFS.2.RI.1.1	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	LA	PreK-2	2	2
	Part B				
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	3-8	3	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	3-8	3	3
SC.5.N.1.1	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-8	3	3
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-8	3	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or	SC	3-8	3	3

	experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.				
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-8	3	3
<u>LAFS.K12.SL.2</u> <u>.5</u>	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	3-8	3	2

# The Fallen Log Activity 23/Interrelationships

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	4-8	3	3
SC.4.P.9.1	Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.	SC	4-8	3	1
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	4-8	3	3
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy_transfer in a food web.	SC	4-8	2	3
LAFS.K12.SL.2 .5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	4-8	3	2

Nature's Recycler Activity 24/Interrelations				onships	
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.1.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations.	SC	1-6	3	3
SC.2.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration and systematic observations, and generate appropriate explanations based on those explorations.	SC	1-6	3	3
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	1-6	3	3
SC.4.N.1.1	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	1-6	3	3
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	1-6	3	3
SC.4.P.9.1	Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.	SC	1-6	2	1
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	1-6	2	3
SC.5.N.1.1	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	1-6	3	3

SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	1-6	3	3
<u>LAFS.K12.SL.2</u> <u>.5</u>	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	1-6	3	2

#### **Birds and Worms Activity 25/Interrelationships Target** Level of Level of **Subject** Standard **Description** Grades **Activity Complexity** SC.K.N.1.5 Recognize that learning can come from careful observation. SC K-6 2 Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and SC.1.N.1.2 SC K-6 3 2 compare their observations with others. Compare the observations made by different groups using the same tools. SC.2.N.1.2 SC K-6 3 2 Compare the observations made by different groups using the same tools SC SC.3.N.1.2 K-6 3 3 and seek reasons to explain the differences across groups. Keep records as appropriate, such as pictorial, written, or simple charts and SC.3.N.1.3 SC K-6 2 2 graphs, of investigations conducted. Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while SC 2 3 SC.5.L.15.1 K-6 others die or move to new locations. Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles SC.5.L.17.1 SC K-6 2 2 variations, animal behaviors and physical characteristics. LAFS.68.RH.3. Integrate visual information (e.g., in charts, graphs, photographs, videos, or LA K-6 3 2 maps) with other information in print and digital texts. Draw a picture graph and a bar graph (with single-unit scale) to represent a MAFS.2.MD.4. data set with up to four categories. Solve simple put-together, take-apart, MA K-6 3 2 10 and compare problems using information presented in a bar graph.

MAFS.3.MD.2. <u>3</u>	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.	MA	K-6	3	2	
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# Dynamic Duos Activity 26/Interrelationships

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	5-8	3	2
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.	SC	5-8	2	3
SC.7.L.17.2	Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.	SC	5-8	3	-2
LAFS.K12.L.3.6	Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.	LA	5-8	3	2
LAFS.68.RH.2. 4	Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.	LA	5-8	3	2

Every Tree	e for Itself A	ctivity 2	27/Inter	rrelatio	nships
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	K-8	3	1
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	K-8	2	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	K-8	3	2
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	K-8	3	3
<u>LAFS.68.RST.3.</u> 9	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	LA	K-8	2	3
<b>Air Plants</b>	A	Activity	28/Inte	errelatio	onships
Air Plants Standard	Description	Activity Subject	28/Inte	Level of Activity	Level of Complexity
			Target	Level of	Level of
Standard	Description  Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate	Subject	Target Grades	Level of Activity	Level of Complexity

SC.5.N.1.1	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-6	2	3
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	3-6	2	3
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	SC	3-6	2	2

## Rain Reasons Activity 29/Interrelationships

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.6.E.6.2	Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.	SC	6-8	2	2
SC.6.E.7.2	Investigate and apply how the cycling of water between the atmosphere and hydrosphere has an effect on weather patterns and	SC	6-8	2	3
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	6-8	3	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in	SC	6-8	3	3

	charts, tables, and graphics, analyze information, make predictions, and defend conclusions.				
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	6-8	3	3
SS.6.G.1.2	Analyze the purposes of map projections (political, physical, special purpose) and explain the applications of various types of maps.	SS	6-8	3	-

#### **Three Cheers for Trees**

## **Activity 30/Interrelationships**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	1-4	2	2
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	1-4	3	3
LAFS.1.SL.2.5	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	LA	1-4	3	2
SS.3.G.3.2	Describe the natural resources in the United States, Canada, Mexico, and the Caribbean.	SS	1-4	2	-

#### Plant a Tree

## **Activity 31/Interrelationships**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	1-8	2	1
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	1-8	2	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	1-8	3	2

SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	1-8	2	3
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	SC	1-8	2	3
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	1-8	3	3
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	1-8	3	3
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	1-8	2	2
LAFS.1.SL.1.1	Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).  b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.  c. Ask questions to clear up any confusion about the topics and texts under discussion.	LA	1-8	3	2
LAFS.2.SL.1.1	<ul> <li>Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</li> <li>a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li> <li>b. Build on others' talk in conversations by linking their comments to the remarks of others.</li> <li>c. Ask for clarification and further explanation as needed about the topics and texts under discussion.</li> </ul>	LA	1-8	3	3
LAFS.3.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 <i>topics and texts</i> , building on others' ideas and expressing their own clearly.	LA	1-8	3	3

	<ul> <li>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.</li> <li>b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li> <li>c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</li> <li>d. Explain their own ideas and understanding in light of the discussion.</li> </ul>				
LAFS.4.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</li> <li>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.</li> <li>b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li> <li>c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</li> <li>d. Explain their own ideas and understanding in light of the discussion.</li> </ul>	LA	1-8	3	3
LAFS.5.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</li> <li>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.</li> <li>b. Follow agreed-upon rules for discussions and carry out assigned roles.</li> <li>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</li> <li>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</li> </ul>	LA	1-8	3	3

LAFS.6.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</li> <li>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> </ul>	LA	1-8	3	3
LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>	LA	1-8	3	3

LAFS.8.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>	LA	1-8	3	3
SS.1.C.1.1	Explain the purpose of rules and laws in the school and community.	SS	1-8	3	-
<u>SS.1.C.1.2</u>	Give examples of people who have the power and authority to make and enforce rules and laws in the school and community.	SS	1-8	2	-
SS.1.C.2.3	Identify ways students can participate in the betterment of their school and community.	SS	1-8	3	-
SS.1.G.1.6	Describe how location, weather, and physical environment affect the way people live in our community.	SS	1-8	2	-
SS.2.C.2.4	Identify ways citizens can make a positive contribution in their community.	SS	1-8	3	-
SS.3.C.2.1	Identify group and individual actions of citizens that demonstrate civility, cooperation, volunteerism, and other civic virtues.	SS	1-8	3	-
SS.7.C.2.3	Experience the responsibilities of citizens at the local, state, or federal levels.	SS	1-8	2	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	1-8	2	-

A Forest	of Many Uses	Activity	32/Inte	rrelatio	nships
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	1-4	2	1
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	1-4	2	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	1-4	2	2
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	1-4	2	<u>2</u>
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	1-4	2	3
	Part B				
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	5-8	3	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	5-8	3	3
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	5-8	3	2
SS.7.C.2.12	Develop a plan to resolve a state or local problem by researching public policy alternatives, identifying appropriate government agencies to address the issue, and determining a course of action.	SS	5-8	3	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	5-8	3	-

Forest Consequences Activity 33/Interrelationship					nships
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	6-8	3	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	6-8	3	3
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	6-8	3	2
LAFS.K12.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.	LA	6-8	3	2
LAFS.6.W.3.9	<ul> <li>Draw evidence from literary or informational texts to support analysis, reflection, and research.</li> <li>a. Apply grade 6 Reading standards to literature (e.g., "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").</li> <li>b. Apply grade 6 Reading standards to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not").</li> </ul>	LA	6-8	3	3
LAFS.7.W.3.9	<ul> <li>Draw evidence from literary or informational texts to support analysis, reflection, and research.</li> <li>a. Apply grade 7 Reading standards to literature (e.g., "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 or alter history").</li> <li>b. Apply grade 7 Reading standards to literary nonfiction (e.g. "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").</li> </ul>	LA	6-8	3	3

LAFS.8.W.3.9	<ul> <li>Draw evidence from literary or informational texts to support analysis, reflection, and research.</li> <li>a. Apply grade 8 Reading standards to literature (e.g., "Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new").</li> <li>b. Apply grade 8 Reading standards to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced").</li> </ul>	LA	6-8	3	3
SS.7.C.2.12	Develop a plan to resolve a state or local problem by researching public policy alternatives, identifying appropriate government agencies to address the issue, and determining a course of action.	SS	6-8	3	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	6-8	3	-

#### **Who Works in This Forest?**

### **Activity 34/Interrelationships**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	3-6	2	4
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	3-6	2	4
CTE- AFNR.68.ENVI RO.01.02	Describe some of the careers available in the environmental service systems career pathway.	СТЕ	3-6	3	-
<u>CTE-</u> <u>AFNR.68.ENVI</u> <u>RO.01.03</u>	Identify common characteristics of the careers in environmental service systems career pathway.	СТЕ	3-6	3	-
<u>CTE-</u> <u>AFNR.68.ENVI</u> <u>RO.01.05</u>	Identify skills required to successfully enter a career in the environmental service systems career pathway.	СТЕ	3-6	3	-

Note: There are additional CTE standards that align with this activity!

Loving It Too Much Activity 35/Interrelationships					nships
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	6-8	3	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	6-8	3	3
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	6-8	3	3
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	6-8	3	2
LAFS.68.RH.3. 7	Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	LA	6-8	3	2

LAFS.6.W.3.9	<ul> <li>Draw evidence from literary or informational texts to support analysis, reflection, and research.</li> <li>a. Apply grade 6 Reading standards to literature (e.g., "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").</li> <li>b. Apply grade 6 Reading standards to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not").</li> </ul>	LA	6-8	3	3
LAFS.7.W.3.9	<ul> <li>Draw evidence from literary or informational texts to support analysis, reflection, and research.</li> <li>a. Apply grade 7 Reading standards to literature (e.g., "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 or alter history").</li> <li>b. Apply grade 7 Reading standards to literary nonfiction (e.g. "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").</li> </ul>	LA	6-8	3	3
LAFS.8.W.3.9	<ul> <li>Draw evidence from literary or informational texts to support analysis, reflection, and research.</li> <li>a. Apply grade 8 Reading standards to literature (e.g., "Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new").</li> <li>b. Apply grade 8 Reading standards to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced").</li> </ul>	LA	6-8	3	3

MAFS.7.SP.1.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	MA	6-8	3	2
MAFS.6.SP.2.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	MA	6-8	2	2
SS.8.A.1.2	Analyze charts, graphs, maps, photographs and timelines; analyze political cartoons; determine cause and effect.	SS	6-8	3	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	6-8	3	-

# Pollution Search Activity 36/Interrelationships

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	2-6	2	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	2-6	2	2
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	2-6	2	2
SC.2.N.1.6	Explain how scientists alone or in groups are always investigating new ways to solve problems.	SC	2-6	1	2
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	2-6	2	3
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	2-6	<u>1</u>	<u>2</u>
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	2-6	2	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	2-6	2	2
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	2-6	2	3

SS.4.C.2.2	Identify ways citizens work together to influence government and help solve community and state problems.	SS	2-6	1	-					
	Part B									
VI.E.1.c	Identifies examples of organized efforts to protect the environment (e.g., recycling materials in the classroom)	SC	PreK-2	2	-					
SC.K.L.14.2	Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life.	SC	PreK-2	2	2					
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	PreK-2	2	2					
<u>IV.A.1.a</u>	Engages in multiple back-and forth communicative interactions with adults (e. g., teacher-shared information, read-aloud books) and peers to set goals, follow rules, solve problems and share what is learned with others	LA	PreK-2	2	-					
<u>IV.A.1.b</u>	Shows understanding by asking and answering factual, predictive and inferential questions, adding comments relevant to the topic and reacting appropriately to what is said	LA	PreK-2	2	-					
<u>IV.A.2.a</u>	Identifies the main idea, some details of a conversation, story or informational text and can explicitly connect what is being learned to own existing knowledge	LA	PreK-2	2	-					
<u>IV.A.2.b</u>	Demonstrates increased ability to focus and sustain attention, set goals and solve dilemmas presented in conversation, story, informational text or creative play	LA	PreK-2	2	-					
LAFS.K.RL.1.1	With prompting and support, ask and answer questions about key details in a text.	LA	PreK-2	2	2					
LAFS.K.SL.1.2	Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood	LA	PreK-2	2	2					
LAFS.1.RL.1.2	Retell stories, including key details, and demonstrate understanding of their central message or lesson.	LA	PreK-2	2	2					
LAFS.2.RL.3.7	Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.	LA	PreK-2	2	2					
VII.C.3	Demonstrates awareness of group rules (e.g., family, classroom, school or community	SS	PreK-2	2						

VII.D.6	Begins to identify the relationship between human decisions and the impact on the environment (e.g., recycling and water conservation)	SS	PreK-2	2	-
SS.K.C.2.1	Demonstrate the characteristics of being a good citizen.	SS	PreK-2	2	-
SS.1.C.2.3	Identify ways students can participate in the betterment of their school and community.	SS	PreK-2	2	-
SS.2.C.2.4	Identify ways citizens can make a positive contribution in their community.	SS	PreK-2	2	-

### Reduce, Reuse, Recycle

### **Activity 37/Interrelationships**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	5-8	2	2
SS.5.C.2.4	Evaluate the importance of civic responsibilities in American democracy.	SS	5-8	2	2
SS.5.C.2.5	Identify ways good citizens go beyond basic civic and political responsibilities to improve government and society.	SS	5-8	2	-
SS.7.C.2.14	Conduct a service project to further the public good.	SS	5-8	3	-
SS.7.C.2.3	Experience the responsibilities of citizens at the local, state, or federal levels.	SS	5-8	3	-
SS.8.G.5.2	Describe the impact of human modifications on the physical environment and ecosystems of the United States throughout history.	SS	5-8	2	-

### **Every Drop Counts**

### **Activity 38/Interrelationships**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	4-8	<u>2</u>	2
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	4-8	2	3

SC.5.N.1.1	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	4-8	3	3
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	4-8	3	3
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	4-8	2	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	4-8	3	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	4-8	2	3
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	4-8	3	3
SS.4.C.2.2	Identify ways citizens work together to influence government and help solve community and state problems.	SS	4-8	2	-
SS.5.C.2.5	Identify ways good citizens go beyond basic civic and political responsibilities to improve government and society.	SS	4-8	2	-

SS.7.C.2.3	Experience the responsibilities of citizens at the local, state, or federal levels.	SS	4-8	3	-
SS.7.C.2.13	Examine multiple perspectives on public and current issues.	SS	4-8	2	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	4-8	2	-
<b>Energy Sl</b>	leuths	activity 3	39/Inte	rrelatio	nships
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
SC.2.E.7.2	Investigate by observing and measuring, that the Sun's energy directly and indirectly warms the water, land, and air.	SC	K-3	1	3
SC.2.P.10.1	Discuss that people use electricity or other forms of energy to cook their food, cool or warm their homes, and power their cars.	SC	K-3	2	1
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.	SC	K-3	2	1
SC.3.N.3.1	Recognize that words in science can have different or more specific meanings than their use in everyday language; for_example, energy, cell, heat/cold, and evidence.	SC	K-3	2	2
SC.3.P.10.1	Identify some basic forms of energy such as light, heat, sound, electrical, and mechanical.	SC	K-3	2	1
SC.3.P.10.2	Recognize that energy has the ability to cause motion or create change.	SC	K-3	1	1
	Part B and C				
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	4-8	<u>2</u>	<u>2</u>
SC.4.E.6.6	Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).	SC	4-8	2	1
SC.4.P.10.1	Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion.	SC	4-8	2	2

sound, electrical, and the energy of motion.

SC.4.P.10.2	Investigate and describe that energy has the ability to cause motion or create change.	SC	4-8	3	2
SC.5.P.10.2	Investigate and explain that energy has the ability to cause motion or create change.	SC	4-8	3	3
SC.5.P.10.4	Investigate and explain that electrical energy can be transformed into heat, light, and sound energy, as well as the energy of motion.	SC	4-8	3	3
SC.7.P.11.2	Investigate and describe the transformation of energy from one form to another.	SC	4-8	2	2
SC.7.P.11.3	Cite evidence to explain that energy cannot be created nor destroyed, only changed from one form to another.	SC	4-8	2	3
SC.35.CS- CS.3.2	Create an artifact (independently and collaboratively) that answers a research question clearly communicating thoughts and ideas.	SC	4-8	3	-
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	4-8	3	-
LAFS.K12.W.3. 7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the under investigation.	LA	4-8	3	2
LAFS.K12.W.3. 9	Draw evidence from literary or informational texts to support analysis, reflection, and research.	LA	4-8	3	3

# Then and Now Activity 40/Interrelationships

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	4-8	2	3
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	4-8	2	2
SS.5.A.1.1	Use primary and secondary sources to understand history.	SS	4-8	3	-
SS.8.A.1.1	Provide supporting details for an answer from text, interview for oral history, check validity of information from research/text, and identify strong vs. weak arguments.	SS	4-8	3	-

SS.8.G.2.3	Use geographic terms and tools to analyze case studies of how selected regions of the United States have changed over time.	SS	4-8	2	-
SS.8.G.4.5	Use geographic terms and tools to analyze case studies of the development, growth, and changing nature of cities and urban centers in the United States over time.	SS	4-8	2	-
SS.8.G.5.2	Describe the impact of human modifications on the physical environment and ecosystems of the United States throughout history.	SS	4-8	2	-
SS.8.G.6.1	Use appropriate maps and other graphic representations to analyze geographic problems and changes over time throughout American history.	SS	4-8	2	-

# How Plants Grow Activity 41/Systems

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	SC	4-8	3	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	4-8	3	2
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive reproduce while others die or move to new locations.	SC	4-8	3	3
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	4-8	3	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	4-8	3	3
SC.8.L.18.1	Describe and investigate the process of photosynthesis, such as the roles of light, carbon dioxide, water and chlorophyll; production of food; release of oxygen.	SC	4-8	3	3
	Variation				
SC.K.L.14.3	Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do.	SC	K-2	3	2
SC.K.N.1.1	Collaborate with a partner to collect information	SC	K-2	3	1

SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	K-2	2	2
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features.	SC	K-2	2	3
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	K-2	3	2
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	K-2	3	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	K-2	3	2
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	K-2	2	2
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	K-2	2	2
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	K-2	2	2
LAFS.K.SL.2.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.	LA	K-2	2	3

# **Sunlight and Shades of Green**

### **Activity 42/Systems**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.	SC	3-8	2	1
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	SC	3-8	2	3
SC.4.L.17.3	Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.	SC	3-8	2	2
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	3-8	1	2
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive reproduce while others die or move to new locations.	SC	3-8	2	3

SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	3-8	3	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	3-8	2	3
SC.8.L.18.1	Describe and investigate the process of photosynthesis, such as the roles of light, carbon dioxide, water and chlorophyll; production of food; release of oxygen.	SC	4-8	3	3

### **Have Seeds, Will Travel**

### **Activity 43/Systems**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.K.L.14.3	Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do.	SC	K-8	2	2
SC.K.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.	SC	K-8	3	2
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.	SC	K-8	2	1
SC.1.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light), texture, and whether objects sink or float.	SC	K-8	3	2
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	SC	K-8	3	2
SC.3.L.17.1	Describe how animals and plants respond to changing seasons.	SC	K-8	1	2
SC.4.L.16.1	Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.	SC	K-8	3	2
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	K-8	1	3

SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive reproduce while others die or move to new locations.	SC	4-8	2	3
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	K-8	3	2
MAFS.K.MD.2.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	MA	K-8	3	2

# Water Wonders Activity 44/Systems

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.E.6.4	Describe the basic differences between physical weathering (breaking down of rock by wind, water, ice, temperature change, and plants) and erosion (movement of rock by gravity, wind, water, and ice).	SC	4-8	1	2
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	4-8	2	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	4-8	3	3
SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.	SC	4-8	2	2
SC.4.P.8.2	Identify properties and common uses of water in each of its states.	SC	4-8	3	1
SC.4.P.10.2	Investigate and describe that energy has the ability to cause motion or create change.	SC	4-8	2	2
SC.4.P.10.4	Describe how moving water and air are sources of energy and can be used to move things.	SC	4-8	2	2
SC.5.E.7.1	Create a model to explain the parts of the water cycle. Water can be a gas, a liquid, or a solid and can go back and forth from one state to another.	SC	4-8	3	3

SC.5.E.7.2	Recognize that the ocean is an integral part of the water cycle and is connected to all of Earth's water reservoirs evaporation and precipitation processes.	SC	4-8	3	2
SC.5.E.7.4	Distinguish among the various forms of precipitation (rain, snow, sleet, and hail), making connections to the weather in a particular place and time.	SC	4-8	2	3
SC.5.P.10.2	Investigate and explain that energy has the ability to cause motion or create change.	SC	4-8	2	3
SC.6.E.6.1	Describe and give examples of ways in which Earth's surface is built up and torn down by physical and chemical weathering, erosion, and deposition.	SC	4-8	2	2
SC.6.E.6.2	Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.	SC	4-8	2	2
SC.6.E.7.2	Investigate and apply how the cycling of water between the atmosphere and hydrosphere has an effect on weather patterns and climate.	SC	4-8	3	3
LAFS.K12.W.1.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	LA	4-8	3	3

### Web of Life Activity 45/Systems

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	4-8	2	2
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	SC	4-8	2	3
SC.4.L.17.2	Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.	SC	4-8	3	2
SC.4.L.17.3	Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.	SC	4-8	3	2
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	4-8	3	3

SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an	SC	4-8	3	2
<u>5C.4.IV.3.1</u>	explanation in your mind, or a computer model.	SC	4-8	3	2
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	4-8	2	2
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive reproduce while others die or move to new locations.	SC	4-8	3	1
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	SC	4-8	3	2
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air quality, changing the flow of water.	SC	4-8	2	2
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.	SC	4-8	3	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	4-8	3	3
SC.7.N.3.2	Identify the benefits and limitations of the use of scientific models.	SC	4-8	2	2
SC.8.L.18.1	Describe and investigate the process of photosynthesis, such as the roles of light, carbon dioxide, water and chlorophyll; production of food; release of oxygen.	SC	4-8	2	3
SC.8.N.3.1	Select models useful in relating the results of their own investigations.	SC	4-8	3	3
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	4-8	3	-
Schoolyan	rd Safari		Activit	y 46/Sy	stems
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
<u>VI.A.1.b</u>	Begins to identify and make observations about what can be learned about the world using each of the five senses	SC	PreK-5	3	-
VI.A.3.b	Collects and records data through drawing, writing, dictation and taking photographs (e.g., using tables, charts, drawings, tallies and graphs)	SC	PreK-5	2	-

<u>VI.A.3.d</u>	Shares findings and outcomes of experiments	SC	PreK-5	3	-
VI.D.1.b	Discovers, explores, sorts, compares, and contrasts objects that are naturally found in the environment, including rocks, soil, sand and mud, and recognizes relationships among the objects (e.g., nature walks with hand lenses, collection bag) (e.g., rocks, twigs, leaves and sea shells)	SC	PreK-5	3	-
SC.K.L.14.3	Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do.	SC	PreK-5	3	2
SC.K.N.1.1	Collaborate with a partner to collect information	SC	PreK-5	2	1
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	PreK-5	3	2
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features.	SC	PreK-5	1	3
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	PreK-5	3	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	PreK-5	3	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	PreK-5	3	2
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	PreK-5	3	2
SC.2.N.1.5	Distinguish between empirical observation (what you see, hear, feel, smell, or taste) and ideas or inferences (what you think).	SC	PreK-5	1	2
SC.K2.CS- CS.2.6	Illustrate thoughts, ideas, and stories in a step-by-step manner using writing tools, digital cameras, and drawing tools.	SC	PreK-5	2	-
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	PreK-5	3	3
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	PreK-5	1	3
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	PreK-5	3	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	PreK-5	2	3

SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.	SC	PreK-5	1	2
LAFS.K.SL.2.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.	LA	PreK-5	2	3
<u>LAFS.1.SL.2.5</u>	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	LA	PreK-5	2	2
LAFS.2.SL.2.5	Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences appropriate to clarify ideas, thoughts, and feelings.	LA	PreK-5	2	3

#### **Are Vacant Lots Vacant?**

### **Activity 47/Systems**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	4-8	1	3
SC.4.N.1.3	Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.	SC	4-8	2	2
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	4-8	3	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	4-8	3	3
SC.5.N.1.5	Recognize and explain that authentic scientific investigation frequently does not parallel the steps of "the scientific method."	SC	4-8	2	2
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	4-8	3	3
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air quality, changing the flow of water.	SC	4-8	1	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	4-8	2	3

SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	4-8	3	2
SC.35.CS- CS.3.2	Create an artifact (independently and collaboratively) that answers a research question clearly communicating thoughts and ideas.	SC	4-8	3	-
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	4-8	3	-
	Variation				
SC.K.N.1.1	Collaborate with a partner to collect information.	SC	K-3	2	2
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	K-3	3	3
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	K-3	3	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	K-3	3	1
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	K-3	1	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	K-3	3	2
SC.2.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration and systematic observations, and generate appropriate explanations based on those explorations.	SC	K-3	2	3
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	K-3	3	2
SC.2.N.1.5	Distinguish between empirical observation (what you see, hear, feel, smell, or taste) and ideas or inferences (what you think).	SC	K-3	1	2
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	K-3	3	3
SC.3.N.1.6	Infer based on observation.	SC	K-3	2	3

Field, Forest, and Stream			Activi	ity 48/S	ystems
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.E.6.6	Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).	SC	4-8	1	1
SC.4.L.17.2	Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.	SC	4-8	2	2
SC.4.L.17.3	Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.	SC	4-8	2	2
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	4-8	2	3
SC.4.N.1.3	Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.	SC	4-8	2	2
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	SC	4-8	3	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	4-8	3	3
SC.4.P.8.2	Identify properties and common uses of water in each of its states.	SC	4-8	1	1
SC.4.P.10.1	Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion.	SC	4-8	1	2
SC.4.P.10.2	Investigate and describe that energy has the ability to cause motion or create change.	SC	4-8	1	2
SC.4.P.10.4	Describe how moving water and air are sources of energy and can be used to move things.	SC	4-8	1	2
SC.4.P.11.1	Recognize that heat flows from a hot object to a cold object and that heat flow may cause materials to change temperature.	SC	4-8	2	1
SC.5.E.7.3	Recognize how air temperature, barometric pressure, humidity, wind speed and direction, and precipitation determine the weather in a particular place and time.	SC	4-8	2	2

SC.5.E.7.5	Recognize that some of the weather-related differences, such as temperature and humidity, are found among different environments, such as swamps, deserts, and mountains.	SC	4-8	2	
SC.5.E.7.6	Describe characteristics (temperature and precipitation) of different climate zones as they relate to latitude, elevation, and proximity to bodies of water.	SC	4-8	1	3
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	4-8	3	2
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	SC	4-8	2	2
SC.5.P.8.1	Compare and contrast the basic properties of solids, liquids, and gases, such as mass, volume, color, texture, and temperature.	SC	4-8	1	2
SC.5.P.10.2	Investigate and explain that energy has the ability to cause motion or create change.	SC	4-8	1	3
SC.6.E.7.5	Explain how energy provided by the sun influences global patterns of atmospheric movement and the temperature differences between air, water, and land.	SC	4-8	2	3
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	4-8	3	3
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air quality, changing the flow of water.	SC	4-8	1	2
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of transfer in a food web.	SC	4-8	2	3
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	4-8	3	3
SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	4-8	2	2
SC.7.P.11.1	Recognize that adding heat to or removing heat from a system may result in a temperature change and possibly a change of state.	SC	4-8	1	1

SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	4-8	2	2
SC.35.CS- CS.3.2	Create an artifact (independently and collaboratively) that answers a research question clearly communicating thoughts and ideas.	SC	4-8	3	-
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	4-8	3	-
SS.4.G.1.4	Interpret political and physical maps using map elements (title, compass rose, cardinal directions, intermediate directions, symbols, legend, scale, longitude, latitude).	SS	4-8	2	-
SS.5.G.4.2	Use geography concepts and skills such as patterns, mapping, graphing to find solutions for local, state, or national problems.	SS	4-8	2	-
SS.6.G.1.5	Use scale, cardinal, and intermediate directions, and estimation of distances between places on current and ancient maps of the world.	SS	4-8	2	-
SS.7.G.5.1	Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.	SS	4-8	1	-
SS.8.G.3.2	Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in the United States and Florida over time.	SS	4-8	1	_
	Variation				
SC.K.N.1.1	Collaborate with a partner to collect information	SC	K-3	3	1
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	K-3	3	2
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	K-3	3	5
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	K-3	3	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	K-3	3	2

SC.2.E.7.2	Investigate by observing and measuring, that the Sun's energy directly and indirectly warms the water, land, and air.	SC	K-3	3	3
SC.2.P.8.1	Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, sinking or floating in water, and attraction and repulsion of magnets.	SC	K-3	3	1
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.	SC	K-3	2	1
SC.3.N.3.1	Recognize that words in science can have different or more specific meanings than their use in everyday language; for example, energy, cell, heat/cold, and evidence.	SC	K-3	2	2
SC.3.P.10.1	Identify some basic forms of energy such as light, heat, sound, electrical, and mechanical.	SC	K-3	2	1
SC.3.P.10.2	Recognize that energy has the ability to cause motion or create change.	SC	K-3	2	1

### **Tropical Treehouse**

### **Activity 49/Systems**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
SC.3.N.3.2	Recognize that scientists use models to help understand and explain how things work.	SC	3-6	3	1
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	SC	3-6	3	2
SC.35.CS- CS.3.2	Create an artifact (independently and collaboratively) that answers a research question clearly communicating thoughts and ideas.	SC	3-6	3	-
SC.35.CS- PC.3.2	Gather, organize, and analyze information from digital resources.	SC	3-6		-
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	3-6	3	-
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	3-6	3	4

SC.68.CS- CS.2.2	Solve real-life issues in science and engineering (i.e., generalize a solution to open-ended problems) using computational thinking skills.	SC	7-8	2	-
SC.68.CS- CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	7-8	2	-
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
400-Acre V	Wood		Activi	ty 50/Sy	ystems
SS.8.C.1.5	Apply the rights and principles contained in the Constitution and Bill of Rights to the lives of citizens today.	SS	6-8	2	-
SS.7.C.3.6	Evaluate Constitutional rights and their impact on individuals and society.	SS	6-8	2	-
SS.7.C.2.5	Distinguish how the Constitution safeguards and limits individual rights.	SS	6-8	2	-
	Part C				
SS.7.G.3.1	Use maps to describe the location, abundance, and variety of natural resources in North America.	SS	4-8	3	-
SS.6.G.1.5	Use scale, cardinal, and intermediate directions, and estimation of distances.	SS	4-8	3	-
SS.4.G.1.4	Interpret political and physical maps using map elements (title, compass rose, cardinal directions, intermediate directions, symbols, legend, scale, longitude, latitude).	SS	4-8	3	-
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	SC	4-8	2	2
	Part B				
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	3-6	3	4
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	3-6	3	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	3-6	3	4

SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	7-8	1	3
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	7-8	2	2
SS.7.C.2.13	Examine multiple perspectives on public and current issues.	SS	7-8	2	-
LAFS.8.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>	LA	7-8	1	3

### Make Your Own Paper

### **Activity 51/Systems**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.K2.CS- CS.2.8	Gather and organize information using concept-mapping tools.	SC	1-8	1	-
SC.35.CS- CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	1-8	1	-
SC.35.CS- CS.1.3	Answer a question, individually and collaboratively, using data from a simulation.	SC	1-8	2	-
<u>LAFS.68.RST.1.</u> <u>3</u>	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	LA	1-8	1	2

A Look at	Aluminum		Activ	ity 52/S	ystems
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	5-8	2	2
SS.7.C.2.14	Conduct a service project to further the public good.	SS	5-8	3	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	5-8	1	-
On the Mo	ve		Activi	ity 53/S	ystems
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CS.2.4	Solve real-world problems in science and engineering using computational thinking skills.	SC	4-8	1	-
SC.68.CS- CS.6.6	Design and demonstrate the use of a device (e.g., robot, e-textile) to accomplish a task, individually and collaboratively.	SC	4-8	1	-
SC.68.CS- CP.3.1	Select appropriate tools and technology resources to accomplish a variety of tasks and solve problems.	SC	4-8	1	-
I'd Like to	Visit a Place Where		Activit	y 54/Sy	stems
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
<u>VI.E.1.a</u>	Demonstrates how people use objects and natural resources in the environment	SC	PreK-K	1	-
<u>IV.C.1.a</u>	Demonstrates understanding of age-appropriate vocabulary across many topic areas and demonstrates a wide variety of words and their meanings within each area (e.g., world knowledge, names of body parts and feelings)	LA	PreK-K	2	-
VII.D.6	Begins to identify the relationship between human decisions and the impact on the environment (e.g., recycling and water conservation)	SS	PreK-K	1	-

	Parts B & C				
LAFS.K.L.1.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.  a. Capitalize the first word in a sentence and the pronoun I.  b. Recognize and name end punctuation.  c. Write a letter or letters for most consonant and short-vowel sounds (phonemes).  d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.	LA	4-8	1	1
LAFS.K.SL.2.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.	LA	4-8	2	3
LAFS.K.W.1.2	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.	LA	4-8	2	2
LAFS.2.L.1.2	<ul> <li>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</li> <li>a. Capitalize holidays, product names, and geographic names.</li> <li>b. Use commas in greetings and closings of letters.</li> <li>c. Use an apostrophe to form contractions and frequently occurring possessives.</li> <li>d. Generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil).</li> <li>e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</li> </ul>	LA	4-8	1	1
LAFS.5.L.1.2	<ul> <li>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</li> <li>a. Use punctuation to separate items in a series.</li> <li>b. Use a comma to separate an introductory element from the rest of the sentence.</li> <li>c. Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?).</li> <li>d. Use underlining, quotation marks, or italics to indicate titles of works.</li> <li>e. Spell grade-appropriate words correctly, consulting references as needed.</li> </ul>	LA	4-8	1	1

SS.4.C.2.3	Explain the importance of public service, voting, and volunteerism.	SS	4-8	1	-
SS.5.C.2.5	Identify ways good citizens go beyond basic civic and political responsibilities to improve government and society.	SS	4-8	1	-
SS.7.C.2.14	Conduct a service project to further the public good.	SS	4-8	3	-
SS.5.G.1.4	Construct maps, charts, and graphs to display geographic information.	SS	4-8	2	
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	4-8	2	-

### **Planning the Ideal Community**

### **Activity 55/Systems**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CS.2.3	Explain the process of arranging or sorting information into useful order as well as the purpose for doing so.	SC	4-8	1	-
SS.5.G.1.4	Construct maps, charts, and graphs to display geographic information.	SS	4-8	3	-
SS.5.G.4.2	Use geography concepts and skills such as recognizing patterns, mapping, graphing to find solutions for local, state, or national problems.	SS	4-8	2	-

#### We Can Work It Out

#### **Activity 56/Systems**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.68.CS- CC.1.3	Design, develop, and publish a collaborative digital product using a variety of digital tools and media-rich resources that demonstrate and communicate concepts to inform, persuade, and/or entertain.	SC	5-8	1	-
SC.68.CS- CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	5-8	1	-
LAFS.5.RL.2.6	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.	LA	5-8	2	2

SS.7.C.2.3	Experience the responsibilities of citizens at the local, state, or federal levels.	SS	5-8	1	-
SS.7.C.2.13	Examine multiple perspectives on public and current issues.	SS	5-8	2	-
SS.7.G.5.1	Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.	SS	5-8	1	-
Democrac	y in Action		Activit	y 57/ Sy	stems
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- PC.3.2	Gather, organize, and analyze information from digital resources.	SC	5-8	1	-
SC.68.CS- PC.3.1	Answer research questions using digital information resources.	SC	5-8	1	-
LAFS.5.RI.3.7	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.	LA	5-8	1	2
LAFS.5.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</li> <li>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.</li> <li>b. Follow agreed-upon rules for discussions and carry out assigned roles.</li> <li>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</li> <li>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</li> </ul>	LA	5-8	1	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	5-8	2	4

through investigation of different aspects of a topic.

LAFS.6.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</li> <li>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> </ul>	LA	5-8	1	3
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	5-8	2	2
LAFS.68.RH.1. 2	Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	LA	5-8	1	2
LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>	LA	5-8	1	3

SC.35.CS- CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	4-8	2	-
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
There Ought to Be a Law			Activ	ity 58/S	ystems
SS.8.A.4.3	Examine the experiences and perspectives of significant individuals and groups during this era of American History.	SS	5-8	2	-
SS.7.C.2.13	Examine multiple perspectives on public and current issues.	SS	5-8	2	-
SS.7.C.2.10	Examine the impact of media, individuals, and interest groups on monitoring and influencing government.	SS	5-8	2	-
SS.5.C.2.5	Identify ways good citizens go beyond basic civic and political responsibilities to improve government and society	SS	5-8	2	-
SS.5.C.2.4	Evaluate the importance of civic responsibilities in American democracy.	SS	5-8	3	_
LAFS.8.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>	LA	5-8	1	3
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	5-8	1	2

LAFS.K12.SL.2.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	4-8	2	2
LAFS.K12.W.3. 7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	4-8	2	2
<u>LAFS.4.SL.2.5</u>	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	LA	4-8	2	3
<u>LAFS.4.W.3.7</u>	Conduct short research projects that build knowledge through investigation of different aspects of a topic	LA	4-8	2	4
LAFS.5.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</li> <li>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.</li> <li>b. Follow agreed-upon rules for discussions and carry out assigned roles.</li> <li>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</li> <li>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</li> </ul>	LA	4-8	1	3
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	4-8	2	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	4-8	2	2
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.  a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.  b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.	LA	4-8	1	3

	<ul> <li>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</li> <li>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> </ul>				
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	4-8	2	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	4-8	2	4
LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>	LA	4-8	1	3
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	4-8	2	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	4-8	2	2
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.  a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.	LA	4-8	1	3

Standard	Description  Apply knowledge of language to understand how language functions in	Subject	Target Grades	Level of Activity	Level of Complexity
Power of Print			Activity 59/Systems		
SS.8.C.1.5	Apply the rights and principles contained in the Constitution and Bill of Rights to the lives of citizens today.	SS	4-8	1	-
SS.7.C.3.9	Illustrate the law making process at the local, state, and federal levels.	SS	4-8	3	-
SS.7.C.1.9	Define the rule of law and recognize its influence on the development of the American legal, political, and governmental systems.	SS	4-8	1	_
SS.5.C.2.5	Identify ways good citizens go beyond basic civic and political responsibilities to improve government and society.	SS	4-8	1	-
SS.4.C.2.2	Identify ways citizens work together to influence government and help solve community and state problems.	SS	4-8	1	-
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	4-8	2	4
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	4-8	2	2
	<ul> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>				

LA

6-8

3

meanings.

LAFS.K12.L.3.5

comprehend more fully when reading or listening.

Demonstrate understanding of word relationships and nuances in word

2

LAFS.K12.R.2. 4	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.	LA	6-8	3	2
LAFS.K12.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	6-8	2	3
LAFS.K12.W.2.6	Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.	LA	6-8	1	2
LAFS.6.L.3.5	<ul> <li>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</li> <li>a. Interpret figures of speech (e.g., personification) in context.</li> <li>b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.</li> <li>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, unwasteful, thrifty).</li> </ul>	LA	6-8	3	3
LAFS.6.RL.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.	LA	6-8	3	3
LAFS.6.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</li> <li>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> </ul>	LA	6-8	2	3
LAFS.6.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	6-8	2	2

LAFS.6.W.2.6	Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.	LA	6-8	1	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	6-8	2	4
<u>LAFS.68.WHST</u> .2.6	Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	LA	6-8	2	2
LAFS.7.L.3.5	<ul> <li>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</li> <li>a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.</li> <li>b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.</li> <li>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).</li> </ul>	LA	6-8	2	3
<u>LAFS.7.RI.1.1</u>	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	LA	6-8	2	2
LAFS.7.RI.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	LA	6-8	3	2
LAFS.7.RI.2.6	Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	LA	6-8	3	3
LAFS.7.RL.1.1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	LA	6-8	2	2
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.  a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.	LA	6-8	1	3

	<ul> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>				
LAFS.7.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	6-8	3	3
LAFS.7.W.2.6	Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.	LA	6-8	1	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	6-8	2	2
LAFS.8.L.3.5	<ul> <li>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</li> <li>a. Interpret figures of speech (e.g. verbal irony, puns) in context.</li> <li>b. Use the relationship between particular words to better understand each of the words.</li> <li>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., bullheaded, willful, firm, persistent, resolute).</li> </ul>	LA	6-8	2	3
LAFS.8.RI.2.4	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.	LA	6-8	3	2
LAFS.8.RI.2.6	Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.	LA	6-8	2	3
LAFS.8.RL.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of	LA	6-8	3	2

LAFS.K12.L.1.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	LA	5-8	2	2
LAFS.K12.R.3. <u>7</u>	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	LA	5-8	2	2
LAFS.K12.SL.1.2	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	LA	5-8	2	2
LAFS.K12.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	5-8	3	3
LAFS.6.RI.3.7	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.	LA	5-8	2	3
LAFS.6.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	5-8	3	2
<u>LAFS.68.WHST</u> <u>.2.4</u>	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	5-8	3	3
LAFS.7.SL.1.2	Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.	LA	5-8	1	2
LAFS.7.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	5-8	3	3
LAFS.8.RI.3.7	Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.	LA	5-8	2	2
LAFS.8.SL.1.2	Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.	LA	5-8	1	3
LAFS.8.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	5-8	3	3

SS.7.C.2.14	Conduct a service project to further the public good.	SS	5-8	3	_
The Close	ture an	d Scale			
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
<u>VI.A.1.b.</u>	Begins to identify and make observations about what can be learned about the world using each of the five senses	SC	PreK-2	3	-
<u>VI.A.3.b</u>	Collects and records data through drawing, writing, dictation and taking photographs (e.g., using tables, charts, drawings, tallies and graphs)	SC	PreK-2	3	-
<u>VI.B.1.a</u>	Identifies characteristics of a variety of plants and animals including physical attributes and behaviors (e.g., camouflage, body covering, eye color, other adaptations, types of trees and where they grow)	SC	PreK-2	3	-
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	PreK-2	1	2
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	PreK-2	1	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	PreK-2	2	1
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.	SC	PreK-2	3	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	PreK-2	3	2
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	PreK-2	2	2
SC.2.N.1.5	Distinguish between empirical observation (what you see, hear, feel, smell, or taste) and ideas or inferences (what you think).	SC	PreK-2	3	2
To Be a T	ree Ac	ctivity 6	2/Struc	ture an	d Scale
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.	SC	PreK-4	3	1

SC.3.N.3.2	Recognize that scientists use models to help understand and explain how things work.	SC	PreK-4	1	1
SC.35.CS- CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	PreK-4	2	-
Tree Fact	ory	tivity 63	3/Struct	ture and	l Scale
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	SC	3-6	3	2
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.	SC	3-6	3	1
SC.3.N.3.2	Recognize that scientists use models to help understand and explain how things work.	SC	3-6	2	1
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	SC	3-6	1	2
SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.	SC	3-6	1	2
SC.5.L.14.2	Compare and contrast the function of organs and other physical structures of plants and animals, including humans, for example: some animals have skeletons for support some with internal skeletons others with exoskeletons while some plants have stems for support.	SC	3-6	2	2

#### **Looking at Leaves**

SC.6.N.3.4

## **Activity 64/Structure and Scale**

2

3-6

SC

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.K.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.	SC	K-4	3	2

Identify the role of models in the context of the sixth grade science

benchmarks.

2

SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	K-4	2	2
SC.K2.CS- CS.3.2	Create, review, and revise artifacts that include text, images, and audio using digital tools.	SC	K-4	2	-
SC.1.L.14.14	Make observations of living things and their environment using the five senses.	SC	K-4	2	1
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.	SC	K-4	1	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	K-4	3	2
SC.1.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light), texture, and whether objects sink or float.	SC	K-4	3	2
SC.2.P.8.1	Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets.	SC	K-4	3	1
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	SC	K-4	1	2
SC.3.P.8.3	Compare materials and objects according to properties such as size, shape, color, texture, and hardness.	SC	K-4	3	2
SC.35.CS- CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	K-4	2	-
SC.4.N.1.1	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	K-4	1	3
SC.4.P.8.1	Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.	SC	K-4	3	2

<b>Bursting B</b>	uds Ac	tivity 65	5/Struct	ture and	l Scale
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	K-6	1	2
SC.K.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted	SC	K-6	3	2
SC.K.N.1.5	Recognize that learning can come from careful observation.	SC	K-6	1	2
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	K-6	3	2
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	K-6	2	1
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.	SC	K-6	2	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	K-6	3	2
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	K-6	3	3
LAFS.K.W.1.2	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.	LA	K-6	3	2
Germinati	ng Giants Ac	ctivity 6	6/Struc	ture an	d Scale
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	4-6	1	-
SC.4.L.16.1	Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.	SC	4-6	1	2

SC.68.CS- CS.2.1	Create, modify, and use a database (e.g., define field formats, adding new records, manipulate data) to analyze data and propose solutions for a task/problem, individually and collaboratively.	SC	4-6	1	-
<u>LAFS.68.RST.1.</u> <u>3</u>	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	LA	4-6	1	2
MAFS.K12.MP. 4.1	Model with mathematics.  Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	MA	4-6	2	3
MAFS.K12.MP. 5.1	Use appropriate tools strategically.  Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying	MA	4-6	2	2

	assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.				
MAFS.K12.MP. 8.1	Look for and express regularity in repeated reasoning. Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through $(1, 2)$ with slope 3, middle school students might abstract the equation $(y-2)/(x-1)=3$ . Noticing the regularity in the way terms cancel when expanding $(x-1)(x+1)$ , $(x-1)(x^2+x+1)$ , and $(x-1)(x^3+x^2+x+1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.	MA	4-6	2	3
MAFS.4.MD.1. 1	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36),	MA	4-6	1	1
MAFS.5.NF.2.3	Interpret a fraction as division of the numerator by the denominator (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 3/4 as the result of dividing 3 by 4, noting that 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 3/4. If 9 people want to share a 50-pound sack of	MA	4-6	1	2

rice equally by weight, how many pounds of rice should each person get?		
Between what two whole numbers does your answer lie?		

## **How Big Is Your Tree?**

## **Activity 67/Structure and Scale**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.N.1.2	Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.	SC	4-8	2	2
SC.68.CS- CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	4-8	1	-
LAFS.68.RST.1. 3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	LA	4-8	3	2
MAFS.4.MD.1. 1	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36),	MA	4-8	1	1
MAFS.6.SP.2.5	<ul> <li>Summarize numerical data sets in relation to their context, such as by:</li> <li>a. Reporting the number of observations.</li> <li>b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.</li> <li>c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.</li> <li>d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.</li> </ul>	MA	4-8	2	3

SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	4-8	1	-
Name Tha	t Tree Ac	ctivity 6	8/Struc	ture an	d Scale
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
SC.2.N.1.2	Compare the observations made by different groups using the same tools	SC	2-8	2	2
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	SC	2-8	2	2
SC.2.P.8.1	Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets.	SC	2-8	1	1
SC.3.P.8.3	Compare materials and objects according to properties such as size, shape, color, texture, and hardness.	SC	2-8	2	2
SC.4.P.8.1	Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.	SC	2-8	2	2
SC.5.P.8.3	Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.	SC	2-8	2	2
	Part B – (Part B is an assessment opportunity for Pa	art A)			
LAFS.2.W.3.7	Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).	LA	2-8	3	4
<b>Forest for</b>	the Trees A	ctivity 6	9/Struc	cture an	d Scale
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species.)	SC	4-8	2	-

SC.35.CS- CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	4-8	3	-
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	4-8	1	2
SC.68.CS- CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	4-8	1	-
SC.68.CS- CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	4-8	2	-
SC.7.L.17.2	Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.	SC	4-8	1	2
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	4-8	1	3
SC.8.N.4.2	Explain how political, social, and economic concerns can affect science, and vice versa.	SC	4-8	2	3
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	4-8	1	-

Soil Stories Activity 70/Structure and Scale			Scale		
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.K.N.1.3	Keep records as appropriate such as pictorial records of investigations conducted.	SC	K-8	3	2
SC.1.E.6.1	Recognize that water, rocks, soil, and living organisms are found on Earth's surface.	SC	K-8	1	1
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	K-8	2	2
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	K-8	3	2

Describe how small pieces of rock and dead plant and animal parts can be the basis of soil and explain the process by which soil is formed	SC	K-8	2	3
Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.	SC	K-8	3	3
Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	K-8	3	2
Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	K-8	3	3
Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.	SC	K-8	2	2
Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.	SC	K-8\ \	1	1
Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	K-8	1	1
Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.	SC	K-8	1	2
Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.	SC	K-8	3	3
Differentiate between physical changes and chemical changes.	SC	K-8	1	2
Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.	LA	K-8	2	2
Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	K-8	2	2
	the basis of soil and explain the process by which soil is formed  Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.  Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.  Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.  Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.  Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.  Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.  Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.  Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.  Differentiate between physical changes and chemical changes.  Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.  Conduct short as well as more sustained research projects based on focused	Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.  Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.  Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.  Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.  Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.  Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.  Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.  Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.  Differentiate between physical changes and chemical changes.  SC  Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.  Conduct short as well as more sustained research projects based on focused	the basis of soil and explain the process by which soil is formed  Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.  Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.  Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.  Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.  Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.  Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.  Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.  Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.  Differentiate between physical changes and chemical changes.  SC K-8  Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.  Conduct short as well as more sustained research projects based on focused	the basis of soil and explain the process by which soil is formed  Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.  Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.  Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.  Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.  Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.  Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.  Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.  Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.  Differentiate between physical changes and chemical changes.  SC K-8 1  Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.  Conduct short as well as more sustained research projects based on focused

SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	7-8	2	3
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	7-8	3	2
SC.68.CS- CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	7-8	1	-
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
Watch on V	Wetlands Act	tivity 71	/Struct	ure and	<b>Scale</b>
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	K-8	2	4
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	K-8	1	2
<u>LAFS.68.WHST</u> <u>.3.7</u>	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	K-8	2	4
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	K-8	2	4
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	K-8	2	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	K-8	2	4
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	K-8	3	4
LAFS.2.W.3.7	Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).	LA	K-8	3	4

SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	7-8	2	3
SC.7.N.1.1	Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	7-8	3	3
SC.8.N.1.1	Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	SC	7-8	3	3
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	7-8	2	2
LAFS.K12.SL.2 .4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	7-8	3	2
<u>LAFS.K12.SL.2</u> <u>.5</u>	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	7-8	2	2
LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> </ul>	LA	7-8	3	3

	d. Acknowledge new information expressed by others and, when warranted, modify their own views in light of the evidence presented.				
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	7-8	2	2
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	7-8	2	2
LAFS.8.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views in light of the evidence presented.</li> </ul>	LA	7-8	3	3
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	7-8	2	3
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	7-8	2	3
MAFS.7.SP.1.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	MA	7-8	2	2
MAFS.7.SP.1.2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or	MA	7-8	2	3

	simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.				
SS.7.C.2.12	Develop a plan to resolve a state or local problem by researching public policy alternatives, identifying appropriate government agencies to address the issue, and determining a course of action.	SS	7-8	2	-
SS.7.C.2.13	Examine multiple perspectives on public and current issues.	SS	7-8	3	-
SS.7.G.5.1	Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.	SS	7-8	3	-

# Air We Breathe Activity 72/Structure and Scale

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
LAFS.K12.W.3. 7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	6-8	2	2
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.  a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.  b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.  c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.  d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	LA	6-8	2	3
LAFS.7.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.	LA	6-8	2	3

Standard SC.35.CS-	Description  Present digitally created products, either individually and collaboratively, where a topic, concept, or skill is carefully analyzed or thoughtfully	Subject SC	Target Grades	Level of Activity	Level of Complexity
Waste Wat	chers Ac	etivity 7	3/Struc	ture an	d Scale
LAFS.8.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>	LA	6-8	2	2
	<ul> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>				

SC

4-8

3

Compare the methods and results of investigations done by other classmates.

SC.4.N.1.5

explored.

2

SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	SC	4-8	2	3
MAFS.4.MD.1. 1	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36),	LA	4-8	2	2
LAFS.4.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	4-8	2	2
LAFS.5.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	4-8	2	2

LAFS.6.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from the information or explanation presented.</li> </ul>	LA	4-8	2	4
LAFS.7.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	4-8	2	4

LAFS.8.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	4-8	2	4	
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People, Places, Things Activity 74/Structure and Scal				d Scale	
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.K2.CS- CS.1.3	Describe how models represent a real-life system (e.g., globe or map).	SC	K-3	1	-
SC.K2.CS- CS.2.1	Arrange or sort information into useful order, such as sorting students by birth date, with or without technology.	SC	K-3	3	-
SC.K2.CS- CS.2.6	Illustrate thoughts, ideas, and stories in a step-by-step manner using writing tools, digital cameras, and drawing tools.	SC	K-3	2	-
SC.35.CS- CS.1.4	Create a simple model of a system (e.g., flower or solar system) and explain what the model shows and does not show.	SC	K-3	1	-
SC.35.CS- CS.2.3	Explain the process of arranging or sorting information into useful order as well as the purpose for doing so.	SC	K-3	2	-
SC.2.N.1.5	Distinguish between empirical observation (what you see, hear, feel, smell, or taste) and ideas or inferences (what you think).	SC	K-3	2	2

LAFS.3.W.3.8	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	LA	K-3	3	3
SS.K.G.2.1	Locate and describe places in the school and community.	SS	K-3	3	-
Tipi Talk	Act	ivity 75	/Structi	ure and	Scale
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
LAFS.K12.W.1. 2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	4-8	2	2
<u>LAFS.K12.W.3.</u> <u>9</u>	Draw evidence from literary or informational texts to support analysis, reflection, and research.	LA	4-8	2	3
SS.5.A.2.2	Identify Native American tribes from different geographic regions of North America (cliff dwellers and Pueblo people of the desert Southwest, coastal tribes of the Pacific Northwest, nomadic nations of the Great Plains, woodland tribes east of the Mississippi River).	SS	4-8	2	-
SS.5.A.2.3	Compare cultural aspects of Native American tribes from different geographic regions of North America including but not limited to clothing, shelter, food, major beliefs and practices, music, art, and interactions with	SS	4-8	1	-

## Tree Cookies Activity 76/Patterns of Change

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	1-8	1	1
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	SC	1-8	3	2
SC.3.L.17.1	Describe how animals and plants respond to changing seasons.	SC	1-8	2	2
SC.3.N.1.6	Infer based on observation.	SC	1-8	2	3
SC.35.CS- CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	1-8	2	-

the environment.

SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	1-8	2	3
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	1-8	2	3
SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.	SC	1-8	1	2
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	1-8	2	-
SC.68.CS- PC.3.1	Answer research questions using digital information resources.	SC	1-8	2	-
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic	LA	1-8	3	4
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	1-8	2	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	1-8	1	2
SS.1.A.3.2	Create a timeline based on the student's life or school events, using primary sources.	SS	1-8	2	-

## Trees in Trouble Activity 77/Patterns of Change

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	SC	1-8	2	1
SC.1.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations.	SC	1-8	3	3
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	SC	1-8	2	1

SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	SC	1-8	2	2
SC.2.N.1.1	Raise questions about the natural world, investigate them in teams through free exploration and systematic observations, and generate appropriate explanations based on those explorations.	SC	1-8	3	3
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	SC	1-8	3	3
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	1-8	3	2
SC.3.N.1.6	Infer based on observation.	SC	1-8	3	3
SC.35.CS- CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	1-8	2	-
SC.4.N.1.7	Recognize and explain that scientists base their explanations on evidence.	SC	1-8	1	2
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	SC	1-8	1	2
SC.6.N.1.3	Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.	SC	1-8	1	3
SC.6.N.1.5	Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.	SC	1-8	1	2
SC.68.CS- CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	1-8	2	-
SC.7.N.1.3	Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.	SC	1-8	1	2
SC.7.N.1.4	Identify test variables (independent variables) and outcome variables (dependent variables) in an experiment.	SC	1-8	3	1
SC.7.N.1.6	Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.	SC	1-8	1	2
SC.8.N.1.4	Explain how hypotheses are valuable if they lead to further investigations, even if they turn out not to be supported by the data.	SC	1-8	1	2

SC.8.N.1.6	Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	SC	1-8	2	2
LAFS.K12.W.1. 2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	1-8	2	2
LAFS.4.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	1-8	2	2
LAFS.5.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	1-8	2	2

LAFS.6.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from the information or explanation presented.</li> </ul>	LA	1-8	2	4
<u>LAFS.68.RST.1.</u> <u>3</u>	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	LA	1-8	2	2
<u>LAFS.68.WHST</u> .1.2	<ul> <li>Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style and objective tone.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	1-8	3	3

<u>LAFS.7.W.1.2</u>	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	1-8	2	4
LAFS.8.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	1-8	2	4
MAFS.K12.MP. 4.1	Model with mathematics.	MA	1-8	2	3

Mathematically proficient students can apply the mathematics they know to		_
solve problems arising in everyday life, society, and the workplace. In early		
grades, this might be as simple as writing an addition equation to describe a		
situation. In middle grades, a student might apply proportional reasoning to		
plan a school event or analyze a problem in the community. By high school,		
a student might use geometry to solve a design problem or use a function to		
describe how one quantity of interest depends on another. Mathematically		
proficient students who can apply what they know are comfortable making		
assumptions and approximations to simplify a complicated situation,		
realizing that these may need revision later. They are able to identify		
important quantities in a practical situation and map their relationships using		
such tools as diagrams, two-way tables, graphs, flowcharts and formulas.		
They can analyze those relationships mathematically to draw conclusions.		
They routinely interpret their mathematical results in the context of the		
situation and reflect on whether the results make sense, possibly improving		
the model if it has not served its purpose.		

## Signs of Fall Activity 78/Patterns of Change

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity				
	Part A								
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	SC	K-5	1	2				
SC.K.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted	SC	K-5	3	2				
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	SC	K-5	1	1				
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.	SC	K-5	3	2				
SC.3.L.17.1	Describe how animals and plants respond to changing seasons.	SC	K-5	3	2				
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	K-5	3	2				

SS.K.G.3.3	Describe and give examples of seasonal weather changes, and illustrate how weather affects people and the environment.	SS	K-5	3	-				
	Part B								
SC.3.N.1.7	Explain that empirical evidence is information, such as observations or measurements, that is used to help validate explanations of natural phenomena.	SC	3-6	2	3				
SC.4.N.1.7	Recognize and explain that scientists base their explanations on evidence.	SC	3-6	2	2				
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	SC	3-6	1	2				
SC.5.N.2.1	Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.	SC	3-6	1	2				
SC.6.N.1.3	Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.	SC	3-6	1	2				
LAFS.68.RST.1. <u>3</u>	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	LA	3-6	2	2				

# Tree Lifecycle Activity 79/Patterns of Change

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	SC	3-6	1	2
SC.4.L.16.4	Compare and contrast the major stages in the life cycles of Florida plants and animals, such as those that undergo incomplete and complete metamorphosis, and flowering and nonflowering seed-bearing plants.	SC	3-6	1	2
SC.35.CS- CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	3-6	1	-
SC.68.CS- PC.3.1	Answer research questions using digital information resources.	SC	3-6	2	-
LAFS.K12.W.1. <u>3</u>	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	LA	3-6	2	3

LAFS.K12.W.2. 4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	3-6	2	2
LAFS.K12.W.3. 7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	3-6	2	2
LAFS.3.W.1.3	<ul> <li>Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</li> <li>a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.</li> <li>c. Use temporal words and phrases to signal event order.</li> <li>d. Provide a sense of closure.</li> </ul>	LA	3-6	2	3
<u>LAFS.3.W.3.7</u>	Conduct short research projects that build knowledge about a topic.	LA	3-6	2	4
LAFS.4.W.1.3	<ul> <li>Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</li> <li>a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.</li> <li>c. Use a variety of transitional words and phrases to manage the sequence of events.</li> <li>d. Use concrete words and phrases and sensory details to convey experiences and events precisely.</li> <li>e. Provide a conclusion that follows from the narrated experiences or events.</li> </ul>	LA	3-6	2	3
<u>LAFS.4.W.2.4</u>	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	3-6	2	2
<u>LAFS.4.W.3.7</u>	Conduct short research projects that build knowledge through investigation of different aspects of a topic	LA	3-6	2	4
<u>LAFS.5.W.1.3</u>	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	LA	3-6	2	3

	<ul> <li>a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.</li> <li>c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.</li> <li>d. Use concrete words and phrases and sensory details to convey experiences and events precisely.</li> <li>e. Provide a conclusion that follows from the narrated experiences or events.</li> </ul>				
LAFS.5.W.2.4	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	3-6	2	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	3-6	2	2
LAFS.6.W.1.3	<ul> <li>Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</li> <li>a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.</li> <li>b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.</li> <li>c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.</li> <li>d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.</li> <li>e. Provide a conclusion that follows from the narrated experiences or events.</li> </ul>	LA	3-6	2	3
LAFS.6.W.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	LA	3-6	2	2

LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	3-6	2	4
<u>LAFS.68.WHST</u> <u>.2.4</u>	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	LA	3-6	2	3
<u>LAFS.68.WHST</u> <u>.3.7</u>	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	3-6	2	4
Nothing Su	cceeds Like Succession Ac	tivity 8	0/Patte	rns of C	hange
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
	Part A				
<u>LAFS.K12.W.1.</u>	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event	LA	3-6	2	3
<u>3</u>	sequences.				

#### a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. LA LAFS.3.W.1.3 b. Use dialogue and descriptions of actions, thoughts, and feelings to 3-6 develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show LAFS.4.W.1.3 3-6 2 LA 3 the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely.

	e. Provide a conclusion that follows from the narrated experiences or events.				
LAFS.5.W.1.3	<ul> <li>Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</li> <li>a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.</li> <li>c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.</li> <li>d. Use concrete words and phrases and sensory details to convey experiences and events precisely.</li> <li>e. Provide a conclusion that follows from the narrated experiences or events.</li> </ul>	LA	3-6	2	3
LAFS.6.W.1.3	<ul> <li>Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</li> <li>a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.</li> <li>b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.</li> <li>c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.</li> <li>d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.</li> <li>e. Provide a conclusion that follows from the narrated experiences or events.</li> </ul>	LA	3-6	2	3
	Parts B & C				
SC.K.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted	SC	4-8	3	2
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	SC	4-8	3	2

SC.35.CS- CC.1.2	Describe key ideas and details while working individually or collaboratively using digital tools and media-rich resources in a way that informs, persuades, and/or entertains.	SC	4-8	3	-
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	SC	4-8	3	3
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	SC	4-8	3	2
SC.4.N.1.7	Recognize and explain that scientists base their explanations on evidence.	SC	4-8	2	2
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	4-8	1	3
SC.5.N.2.1	Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.	SC	4-8	2	2
LAFS.3.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, and details.</li> <li>c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.</li> <li>d. Provide a concluding statement or section.</li> </ul>	LA	4-8	2	2
LAFS.4.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	4-8	2	2

LAFS.5.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	4-8	2	2
LAFS.6.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from the information or explanation presented.</li> </ul>	LA	4-8	2	4
SS.5.G.1.4	Construct maps, charts, and graphs to display geographic information.	SS	4-8	2	-

Living with Fire Activity 81/Patterns of Change			hange		
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	4-8	2	-
SC.4.P.9.1	Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.	SC	4-8	1	1
SC.68.CS- CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	4-8	1	1
SC.7.L.17.3	Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.	SC	4-8	1	3

#### Resource-Go-Round

#### **Activity 82/Patterns of Change**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	4-8	1	2
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	SC	4-8	1	3
SC.35.CS- CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	4-8	2	-
SC.68.CS- PC.3.1	Answer research questions using digital information resources.	SC	4-8	2	-
<u>LAFS.K12.SL.2</u> . <u>5</u>	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	4-8	2	2
<u>LAFS.K12.W.3.</u> <u>7</u>	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	4-8	2	2
<u>LAFS.K12.W.3.</u> <u>9</u>	Draw evidence from literary or informational texts to support analysis, reflection, and research.	LA	4-8	2	3

LAFS.4.SL.2.5	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	LA	4-8	2	3
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic	LA	4-8	2	4
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	4-8	2	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	4-8	2	2
<u>LAFS.6.SL.2.5</u>	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	4-8	2	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	4-8	2	4
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	4-8	2	2
<u>LAFS.7.W.3.7</u>	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	4-8	2	2
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	4-8	2	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	4-8	2	4
<u>LAFS.68.WHST</u> <u>.3.7</u>	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	4-8	2	4
SS.7.G.3.1	Use maps to describe the location, abundance, and variety of natural resources in North America.	SS	4-8	2	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	4-8	3	-

A Peek at Packaging Activity 83/Patterns of Change				Change	
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
<u>LAFS.K12.SL.2</u> <u>.4</u>	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	5-8	2	2
<u>LAFS.5.SL.2.4</u>	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.	LA	5-8	2	2
LAFS.5.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	5-8	2	2
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	5-8	2	3
LAFS.6.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> </ul>	LA	5-8	2	4

	<ul> <li>c. Use appropriate transitions to clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from the information or explanation presented.</li> </ul>				
<u>LAFS.7.SL.2.4</u>	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	6-8	2	2
LAFS.7.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	5-8	2	4
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	5-8	2	3
LAFS.8.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.	LA	5-8	2	4

	<ul> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>				
SS.8.G.3.2	Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in the United States and Florida over time.	SS	5-8	1	-

# The Global Climate Activity 84/Patterns of Change

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.68.CS- CS.2.4	Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.	SC	6-8	3	-
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	6-8	2	2
SC.8.E.5.10	Assess how technology is essential to science for such purposes as access to outer space and other remote locations, sample collection, measurement, data collection and storage, computation, and communication of information.	SC	6-8	1	3
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	6-8	1	2

MAFS.K12.MP. 4.1	Model with mathematics.  Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	MA	6-8	2	3	
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Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CS.1.2	Describe how models and simulations can be used to solve real-world issues in science and engineering.	SC	5-8	1	-
SC.68.CS- CS.1.3	Evaluate what kinds of real-world problems can be solved using modeling and simulation.	SC	5-8	1	-
SC.35.CS- CS.2.4	Solve real-world problems in science and engineering using computational thinking skills.	SC	5-8	1	-
SC.35.CS- CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	5-8	2	-
SC.35.CS- CP.1.4	Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.	SC	5-8	2	-
SC.35.CS-	Identify digital information resources used to answer research questions	SC	5-8	1	_

(e.g., online library catalog, online encyclopedias, databases, and websites).

PC.3.1

In the Driver's Seat

**Activity 85/Patterns of Change** 

5-8

SC

SC.68.CS-	Evaluate what kinds of real-world problems can be solved using modeling				
<u>CS.1.3</u>	and simulation.	SC	5-8	1	-
SC.68.CS- CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	4-8	2	-
SC.68.CS- CS.2.2	Solve real-life issues in science and engineering (i.e., generalize a solution to open-ended problems) using computational thinking skills.	SC	5-8	2	-
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	5-8	1	2
LAFS.K12.W.3. 7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	5-8	2	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	5-8	2	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	5-8	2	4
<u>LAFS.68.WHST</u> <u>.3.7</u>	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	5-8	2	4
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	5-8	2	2
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	5-8	2	4
MAFS.7.EE.2.3	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 ¾ inches long in the center of a door that is 27 ½ inches wide, you will need to place the	MA	5-8	2	2

	bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.				
MAFS.7.RP.1.1	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks ½ mile in each ¼ hour, compute the unit rate as the complex fraction ½/1/4 miles per hour, equivalently 2 miles per hour.	MA	5-8	2	2

#### **Our Changing World Activity 86/Patterns of Change Target** Level of Level of Standard **Description Subject** Grades **Activity** Complexity SC.35.CS-Create a simple model of a system (e.g., flower or solar system) and explain 5-8 SC 1 what the model shows and does not show. CS.1.4 SC.68.CS-.3.1 Answer research questions using digital information resources. 1 SC 5-8 Identify, research, and collect a data set on a topic, issue, problem, or SC.35.CS-SC 5-8 2 question using age-appropriate technologies. CP.1.3 Describe and give examples of ways in which Earth's surface is built up and SC.6.E.6.1 SC5-8 1 2 torn down by physical and chemical weathering, erosion, and deposition. Investigate and apply how the cycling of water between the atmosphere and SC 5-8 SC.6.E.7.2 3 1 hydrosphere has an effect on weather patterns and climate. Describe how global patterns such as the jet stream and ocean currents influence local weather in measurable terms such as temperature, air SC 5-8 SC.6.E.7.3 1 3 pressure, wind direction and speed, and humidity and precipitation. Explain how energy provided by the sun influences global patterns of atmospheric movement and the temperature differences between air, water, SC 5-8 SC.6.E.7.5 1 3 and land. Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the 5-8 2 SC 1 SC.7.E.6.6 flow of water. Conduct short research projects that use several sources to build knowledge LAFS.5.W.3.7 2 LA 5-8 2 through investigation of different aspects of a topic.

LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	5-8	3	4
SS.6.G.3.2	Analyze the impact of human populations on the ancient world's ecosystems.	SS	5-8	1	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	5-8	1	-
SS.8.G.5.2	Describe the impact of human modifications on the physical environment and ecosystems of the United States throughout history.	SS	5-8	1	-

#### **Earth Manners Activity 87/Patterns of Change Target** Level of Level of **Subject Description** Standard Grades **Complexity Activity** Identifies examples of organized efforts to protect the environment (e.g., VI.E.1.c SC PreK-4 1 recycling materials in the classroom) SC.K2.CS-Illustrate thoughts, ideas, and stories in a step-by-step manner using writing PreK 4 SC 2 CS.2.6 tools, digital cameras, and drawing tools. Write arguments to support claims in an analysis of substantive topics or LAFS.K12.W.1. LA PreK-4 2 2 texts, using valid reasoning and relevant and sufficient evidence. Write opinion pieces in which they introduce the topic or name the book LAFS.1.W.1.1 they are writing about, state an opinion, supply a reason for the opinion, and PreK-4 2 3 LA provide some sense of closure. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use LA PreK-4 LAFS.2.W.1.1 2 2 linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section. Write opinion pieces on topics or texts, supporting a point of view with reasons. a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. LAFS.3.W.1.1 PreK-4 2 LA 1 b. Provide reasons that support the opinion. c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons. d. Provide a concluding statement or section.

LAFS.4.W.1.1	<ul> <li>Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</li> <li>a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.</li> <li>b. Provide reasons that are supported by facts and details.</li> <li>c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).</li> <li>d. Provide a concluding statement or section related to the opinion presented.</li> </ul>	LA	PreK-4	2	3
SS.1.C.2.4	Show respect and kindness to people and animals.	SS	PreK-4	1	_

# Life on the Edge

# **Activity 88/Patterns of Change**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CS.1.1	Identify the concepts illustrated by a simulation (e.g., ecosystem, predator/prey, and invasive species).	SC	4-8	3	-
SC.35.CS- CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	4-8	2	-
SC.35.CS- PC.3.1	Identify digital information resources used to answer research questions (e.g., online library catalog, online encyclopedias, databases, and websites).	SC	4-8	1	-
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	4-8	3	3
SC.68.CS- CS.1.4	Interact with content-specific models and simulations to support learning, research and problem solving (e.g., immigration, international trade, invasive species).	SC	4-8	2	-
SC.68.CS- CP.3.3	Create an artifact (independently and collaboratively) that answers a research question and communicates results and conclusions.	SC	4-8	2	-
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	4-8	1	2

SC.7.L.15.2	Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.	SC	4-8	1	3
SC.7.L.15.3	Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.	SC	4-8	1	3
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	SC	4-8	1	2
<u>LAFS.K12.SL.2</u> . <u>5</u>	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	4-8	1	2
LAFS.K12.W.3. 7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	4-8	2	2
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	4-8	2	4
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	4-8	1	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	4-8	2	2
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	4-8	1	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	4-8	2	4
<u>LAFS.68.WHST</u> <u>.3.7</u>	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	4-8	2	4
LAFS.7.SL.2.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	4-8	1	2
<u>LAFS.8.SL.2.5</u>	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	4-8	1	2

LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	4-8	2	4
Trees for N	Many Reasons Activ	vity 89/]	Pattern	s of Cha	ange
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	SC	2-8	1	2
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	SC	2-8	1	2
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	SC	2-8	1	3
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	2-8	1	2
LAFS.K12.R.1. 1	Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	LA	2-8	2	2
<u>LAFS.K12.R.3.</u> <u>9</u>	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	LA	2-8	1	2
LAFS.2.RL.2.6	Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.	LA	2-8	3	2
LAFS.2.SL.1.2	Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.	LA	2-8	2	2
LAFS.3.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 <i>topics and texts</i> , building on others' ideas and expressing their own clearly.	LA	2-8	2	3

	<ul> <li>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.</li> <li>b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li> <li>c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</li> <li>d. Explain their own ideas and understanding in light of the discussion.</li> </ul>				
LAFS.3.SL.1.2	Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	LA	2-8	3	2
<u>LAFS.4.W.3.9</u>	Draw evidence from literary or informational texts to support analysis, reflection, and research.  a. Apply grade 4 Reading standards to literature (e.g., "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].").  b. Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").	LA	2-8	2	3
LAFS.5.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</li> <li>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.</li> <li>b. Follow agreed-upon rules for discussions and carry out assigned roles.</li> <li>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</li> <li>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</li> </ul>	LA	2-8	2	3
LAFS.5.SL.1.2	Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	LA	2-8	2	2

LAFS.6.RL.3.7	Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch.	LA	2-8	1	3
LAFS.6.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</li> <li>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> </ul>	LA	2-8	2	3
<u>LAFS.68.RST.1.</u> <u>2</u>	Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.	LA	2-8	3	2
LAFS.7.RI.1.3	Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).	LA	2-8	3	2
LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>	LA	2-8	2	3

LAFS.8SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>	LA	2-8	2	2	
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Native Ways Activity 90/Patterns of Cha			hange		
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CS.2.1	Solve age-appropriate problems using information organized using digital graphic organizers (e.g., concept maps and Venn-diagrams).	SC	4-8	1	-
LAFS.K12.R.3. 9	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	LA	4-8	2	2
<u>LAFS.4.RF.4.4</u>	<ul> <li>Read with sufficient accuracy and fluency to support comprehension.</li> <li>a. Read on-level text with purpose and understanding.</li> <li>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.</li> <li>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</li> </ul>	LA	4-8	2	2
LAFS.4.RI.1.2	Determine the main idea of a text and explain how it is supported by key details; summarize the text.	LA	4-8	3	2
LAFS.5.RF.4.4	Read with sufficient accuracy and fluency to support comprehension.	LA	4-8	2	2

	<ul> <li>a. Read on-level text with purpose and understanding.</li> <li>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.</li> <li>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</li> </ul>				
LAFS.5.RI.1.2	Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.	LA	4-8	2	2
LAFS.5.RI.1.3	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.	LA	4-8	2	3
LAFS.5.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</li> <li>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.</li> <li>b. Follow agreed-upon rules for discussions and carry out assigned roles.</li> <li>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</li> <li>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</li> </ul>	LA	4-8	1	3
LAFS.6.RI.1.2	Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	LA	4-8	3	2
LAFS.6.RI.3.9	Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).	LA	4-8	3	2
LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.  a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.	LA	4-8	1	3

	<ul> <li>b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</li> <li>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> </ul>				
LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>	LA	4-8	1	3
LAFS.8.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> </ul>	LA	4-8	1	3

	d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in evidence light of the presented.				
SS.6.G.4.1	Explain how family and ethnic relationships influenced ancient cultures.	SS	4-8	1	-
SS.6.W.1.6	Describe how history transmits culture and heritage and provides models of human character.	SS	4-8	1	-
SS.8.A.4.4	Discuss the impact of westward expansion on cultural practices and migration patterns of Native American and African slave populations.	SS	4-8	1	-

## In the Good Old Days

#### **Activity 91/Patterns of Change**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SC	6-8	1	2
LAFS.K12.R.3. 9	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	LA	6-8	2	2
LAFS.6.RI.2.6	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.	LA	6-8	3	3
LAFS.6.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</li> <li>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> </ul>	LA	6-8	1	3

<u>LAFS.6.W.3.7</u>	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	6-8	2	4
<u>LAFS.68.RH.2.</u> <u>6</u>	Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).	LA	6-8	2	3
LAFS.7.RI.2.6	Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	LA	6-8	2	3
LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>	LA	6-8	1	3
<u>LAFS.7.W.3.7</u>	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	6-8	2	2
LAFS.8.RI.1.3	Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).	LA	6-8	3	2
LAFS.8.RL.2.5	Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.	LA	6-8	2	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	6-8	2	4
LAFS.8.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.	LA	6-8	1	3

	<ul> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>				
SS.6.W.1.1	Use timelines to identify chronological order of historical events.	SS	6-8	2	-
SS.8.A.4.8	Describe the influence of individuals on social and political developments of this era in American History	SS	6-8	1	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	6-8	1	-

### A Look at Lifestyles

### **Activity 92/Patterns of Change**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.68.CS- PC.2.3	Describe the influence of access to information technologies over time and the effects those changes have had on education, the workplace, and the global society.	SC	5-8	1	-
LAFS.K12.R.1. 1	Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	LA	5-8	2	2
LAFS.K12.W.3. 7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	5-8	2	2
LAFS.5.RF.4.4	<ul><li>Read with sufficient accuracy and fluency to support comprehension.</li><li>a. Read on-level text with purpose and understanding.</li><li>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.</li></ul>	LA	5-8	2	2

	c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.				
LAFS.5.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</li> <li>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.</li> <li>b. Follow agreed-upon rules for discussions and carry out assigned roles.</li> <li>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</li> <li>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</li> </ul>	LA	5-8	2	3
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	5-8	2	2
LAFS.6.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</li> <li>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> </ul>	LA	5-8	2	3
<u>LAFS.6.W.3.7</u>	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	LA	5-8	2	4

LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>	LA	5-8	2	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	5-8	2	2
LAFS.8.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>	LA	5-8	1	3
SS.5.A.2.3	Compare cultural aspects of Native American tribes from different geographic regions of North America including but not limited to clothing,	SS	5-8	2	-

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexit
SC.68.CS-	Description  Describe the influence of access to information technologies over time and the effects those changes have had on education, the workplace, and the	Subject		Activity 3	Complexity -
PC.2.3	global society.	9.5			
SS.6.W.1.1	Use timelines to identify chronological order of historical events.	SS	5-8	3	_
00 ( W 1 (	Describe how history transmits culture and heritage and provides models of human character.	SS	5-8	2	-
SS.6.W.1.6			D - 44	a and C	hanga
	ivers of Babylon Activ	vity 94/]	Pattern	s anu C	nange
	Description Activ	Subject	Target Grades	Level of Activity	Level of Complexit

LA

6-8

2

Present information, findings, and supporting evidence such that listeners

can follow the line of reasoning and the organization, development, and

style are appropriate to task, purpose, and audience.

LAFS.K12.SL.2

2

LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	6-8	2	3
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	6-8	2	2
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	6-8	2	3
SS.6.G.2.1	Explain how major physical characteristics, natural resources, climate, and absolute and relative locations have influenced settlement, interactions, and the economies of ancient civilizations of the world.	SS	6-8	2	-
SS.6.G.2.3	Analyze the relationship of physical geography to the development of ancient river valley civilizations.	SS	6-8	2	-
SS.6.G.2.4	Explain how the geographical location of ancient civilizations contributed to the culture and politics of those societies.	SS	6-8	2	-
SS.6.G.2.6	Explain the concept of cultural diffusion, and identify the influences of different ancient cultures on one another.	SS	6-8	1	-
SS.6.G.3.1	Explain how the physical landscape has affected the development of agriculture and industry in the ancient world.	SS	6-8	2	-
SS.6.G.3.2	Analyze the impact of human populations on the ancient world's ecosystems.	SS	6-8	3	-
SS.6.G.6.2	Compare maps of the world in ancient times with current political maps.	SS	6-8	1	-
SS.6.W.2.2	Describe how the developments of agriculture and metallurgy related to settlement, population growth, and the emergence of civilization.	SS	6-8	1	-
SS.6.W.2.3	Identify the characteristics of civilization.	SS	6-8	1	-
SC.7.E.6.6	Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.	SS	6-8	3	-
SS.8.G.5.1	Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.	SS	6-8	2	-

Did You Notice? Activity 95/Patterns of Change				Change	
Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CP.1.3	Identify, research, and collect a data set on a topic, issue, problem, or question using age-appropriate technologies.	SC	K-8	2	-
SC.68.CS- PC.3.1	Answer research questions using digital information resources.	SC	K-8	2	-
<u>LAFS.K12.SL.2</u> <u>.5</u>	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	K-8	1	2
LAFS.K12.W.3. 7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	LA	K-8	3	2
<u>LAFS.K12.W.3.</u> <u>9</u>	Draw evidence from literary or informational texts to support analysis, reflection, and research.	LA	K-8	3	3
<u>LAFS.3.RI.1.3</u>	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.	LA	K-8	3	3
LAFS.3.W.3.7	Conduct short research projects that build knowledge about a topic.	LA	K-8	3	4
LAFS.4.W.3.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	LA	K-8	3	4
LAFS.5.SL.2.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	LA	K-8	1	2
LAFS.5.W.3.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	LA	K-8	3	2
LAFS.6.SL.2.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	LA	K-8	1	2
LAFS.6.W.3.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate	LA	K-8	3	4
<u>LAFS.68.WHST</u> <u>.3.7</u>	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	K-8	3	4

<u>LAFS.68.WHST</u> <u>.3.9</u>	Draw evidence from informational texts to support analysis reflection, and research.	LA	K-8	3	3
LAFS.7.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</li> <li>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</li> </ul>	LA	K-8	2	3
<u>LAFS.7.SL.2.5</u>	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	LA	K-8	1	2
LAFS.7.W.3.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	LA	K-8	3	2
LAFS.8.SL.1.1	<ul> <li>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.</li> <li>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</li> <li>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</li> <li>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</li> </ul>	LA	K-8	2	3

LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	K-8	2	3
LAFS.8.W.3.7	Conduct short research projects to answer a question (including a self- generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	LA	K-8	3	4
SS.K.A.1.1	Develop an understanding of how to use and create a timeline.	SS	K-8	3	-
SS.1.A.2.1	Understand history tells the story of people and events of other times and places.	SS	K-8	2	-
SS.1.A.3.2	Create a timeline based on the student's life or school events, using primary sources.	SS	K-8	3	-
SS.2.A.3.1	Identify terms and designations of time sequence.	SS	K-8	2	-
SS.6.W.1.1	Use timelines to identify chronological order of historical events.	SS	K-8	3	-
SS.6.W.1.5	Describe the roles of historians and recognize varying historical interpretations (historiography).	SS	K-8	2	_
SS.8.G.2.3	Use geographic terms and tools to analyze case studies of how selected regions of the United States have changed over time.	SS	K-8	2	-
SS.8.G.4.5	Use geographic terms and tools to analyze case studies of the development, growth, and changing nature of cities and urban centers in the United States over time	SS	K-8	2	-

### **Improve Your Place**

### **Activity 96/Patterns of Change**

Standard	Description	Subject	Target Grades	Level of Activity	Level of Complexity
SC.35.CS- CP.3.2	Present digitally created products, either individually and collaboratively, where a topic, concept, or skill is carefully analyzed or thoughtfully explored.	SC	5-8	2	-
LAFS.K12.SL.2 .4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	LA	5-8	2	2
LAFS.K12.SL.2 .5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	LA	5-8	1	2

LAFS.K12.W.1. 2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	LA	5-8	2	2
LAFS.5.SL.2.4	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.	LA	5-8	2	2
LAFS.5.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	LA	5-8	2	2
LAFS.6.SL.2.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	5-8	2	3
LAFS.6.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> </ul>	LA	5-8	2	4

	<ul><li>e. Establish and maintain a formal style.</li><li>f. Provide a concluding statement or section that follows from the information or explanation presented.</li></ul>				
<u>LAFS.68.RH.3.</u> <u>7</u>	Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	LA	5-8	2	2
LAFS.68.WHST. 1.2	<ul> <li>Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style and objective tone.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented</li> </ul>	LA	5-8	2	3
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	5-8	2	2
LAFS.7.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	5-8	2	2
LAFS.7.W.1.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.  a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.	LA	5-8	2	4

	<ul> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>				
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	LA	5-8	2	3
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	LA	5-8	2	3
LAFS.8.W.1.2	<ul> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Establish and maintain a formal style.</li> <li>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	LA	5-8	2	4
SS.5.G.1.4	Construct maps, charts, and graphs to display geographic information.	SS	5-8	2	-
SS.7.C.2.14	Conduct a service project to further the public good.	SS	5-8	3	-