



Kindergarten Science Curriculum and Pacing Guide

Bartlett City Schools (Revised May 2019)

| First Nine Weeks | | | Second Nine Weeks | | |
|------------------|---|--|-------------------|--|---|
| Week | Topics | Content | Week | Topics | Content |
| 1 | Staggered Enrollment | | 1-2 | K.LS1: From Molecules to Organisms: Structures and Processes K.ESS3: Earth and Human Activity | R2BR-Bug Safari, Hey, Little Ant, Spiders |
| 2-4 | Social Studies | | 3-8 | Social Studies | |
| 5-6 | K.LS1: From Molecules to Organisms: Structures and Processes | R2BR- My Five Senses, Look, Listen, Taste, Touch, and Smell: Learning About Your Five Senses | | | |
| 7 | K.LS1: From Molecules to Organisms: Structures and Processes, K.LS3.1: Heredity: Inheritance and Variation of Traits | R2BR-Living or Nonliving, I am a Living Thing | | | |
| 8 | | Apples | | | |
| 9 | | Pumpkins | | | |

| Third Nine Weeks | | | Fourth Nine Weeks | | |
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| Week | Topics | Content | Week | Topics | Content |
| 1-2 | K.ESS2: Earth's Systems K.ETS1: Engineering Design Social Studies Standards- See R2BR Lesson Plans | R2BR-The Year at Maple Hill Farm, The Mitten, Animals in Winter | 1-2 | Plants-K.ESS3: Earth & Human Activity, K.LS1: From Molecules to Organisms: Structures and Processes K.LS3.1: Heredity: Inheritance and Variation of Traits | R2BR-The Tiny Seed, Tops and Bottoms |
| 3-7 | Social Studies | | 3-4 | K.PS1: Matter and Its Interactions | R2BR-Change It! |
| 8 & 10 | K.ESS2: Earth's Systems Week 9 is Read Across America Week | R2BR-Weather Forecasting, Clouds | 5-6 | K.ESS3: Earth and Human Activity | R2BR-Home for a Tiger, Home for a Bear, Here is the African Savanna |
| | | | 7-10 | Social Studies | |

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| First Nine Weeks | | | | |
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| TN State Standards (Next Generation) | Vocabulary | Objectives/Learning Targets | Instructional Resources | Crosscutting Concept and Science and Engineering Principles |
| Week 1 Staggered Enrollment | | | | |
| Week 2 Me First SW1 Rat Cage Makeover, SW18 Our PrinciPAL | | | | |
| Week 3 I Like Me! SW 12 Taking Turns, SW17 Who's in Charge at Home? | | | | |
| Week 4 Kindergarten, Here I Come, SW 19 Clubhouse Rules | | | | |
| Week 5 My Five Senses SW 23 Family Traditions | | | | |
| DCI:LS1: From Molecules to Organisms: Structures and Processes | | | | |
| <p>K.LS1: From Molecules to Organisms: Structures and Processes</p> <p>(3) Explain how humans use their five senses in making scientific findings.</p> <p>COMPONENT IDEA: D. Information Processing</p> <p>K.ETS1: Engineering Design</p> <p>(1) Ask and answer questions about the scientific world and gather information using the senses.</p> <p>(2) Describe objects accurately by drawing and/or labeling pictures.</p> <p>COMPONENT IDEA: A. Defining and Delimiting and Engineering Problems</p> | <p>Lesson1 Vocabulary: touch, smell, hear, see, taste</p> <p>Lesson 2 Vocabulary: Observe, compare, measure, classify</p> | <p>Essential Question Lesson 1: How do we use our senses?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify and describe the five senses - Use the five senses to observe and gather information about the world - Identify the sensory organ associated with each sense - Observe many properties of one thing - Ask and answer questions about the scientific world - Explain how humans use their five senses in making scientific findings | <p>HMH (2018) Unit 1 Doing Science:</p> <p>Lesson 1: Our Senses – SE: pp.1-4 (4 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-five-senses.html</p> | <p>CROSSCUTTING CONCEPT:</p> <p>Structure and Function <i>Students investigate how the roles of specific components of a system affect the functioning of the larger system.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Engaging in argument from evidence <i>Students create and identify evidence-based arguments and consider degree to which an argument is supported by evidence.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions (for science) and defining problems (for engineering) 2. Developing and using models 6. Constructing explanations (for science) and designing solutions (for engineering) 8. Obtaining, evaluating, and communicating information <p>Mathematics</p> <p>K.MD.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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i></p> <p>MP.7 Look for and make use of structure</p> <p>English/Language Arts</p> <p>RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>SL.K.1a Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).</p> <p>SL.K.1b Continue a conversation through multiple exchanges.</p> <p>SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood</p> <p>SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.</p> |

Week 6 Look, Listen, Taste, Touch and Smell SW21 Where Have You Seen Me?

DCI:LS1: From Molecules to Organisms: Structures and Processes

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| <p>K.ETS1: Engineering Design (1) Ask and answer questions about the scientific world and gather information using the senses. (2) Describe objects accurately by drawing and/or labeling pictures</p> <p>COMPONENT IDEA: A. Defining and Delimiting and Engineering Problems</p> <p>K.ETS2: Links Among Engineering, Technology, Science and Society (1) Use appropriate tools to make observations and answer testable scientific questions</p> <p>COMPONENT IDEA: A. Defining and Delimiting and Engineering Problems</p> | <p>Lesson 2 Vocabulary: Observe, compare, measure, classify</p> | <p>Essential Question Lesson 2: How do we use science skills?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Observe and describe things by drawing and labeling pictures - Pose questions about things and surroundings - Identify science processes - Demonstrate how science processes can be used to describe things and investigate questions | <p>HMH (2018) Unit 1 Doing Science: TE pp. 1-48</p> <p>Lesson 2: Science Skills – SE: pp.5-8 (4 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-five-senses.html</p> | <p>CROSSCUTTING CONCEPT: Structure and Function <i>Students investigate how the roles of specific components of a system affect the functioning of the larger system.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Engaging in argument from evidence <i>Students create and identify evidence-based arguments and consider degree to which an argument is supported by evidence.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions (for science) and defining problems (for engineering) 2. Developing and using models 6. Constructing explanations (for science) and designing solutions (for engineering) 8. Obtaining, evaluating, and communicating information <p>Mathematics K.MD.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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i> MP.7 Look for and make use of structure</p> <p>English/Language Arts RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. SL.K.1a Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). SL.K.1b Continue a conversation through multiple exchanges. SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.</p> |
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Week 7 [I am a Living Thing, Living or Nonliving](#), SW7 When's Your Birthday?

DCI:LS1: From Molecules to Organisms: Structures and Processes

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| <p>K.LS.1: From Molecules to Organisms: Structures and Processes</p> <p>(2) Recognize differences between living organisms and non-living materials and sort them into groups by observable physical attributes.</p> <p>COMPONENT IDEA: A. Structure and Function</p> | <p>Lesson 9 Vocabulary: living things, nonliving things</p> <p>Lesson 10 Vocabulary: real, pretend</p> | <p>Essential Question Lesson 9: What are living things?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Classify things as living and nonliving. - Describe characteristics of living things. - Describe characteristics of nonliving things. - Sort living and nonliving things <p>Essential Question Lesson 10: What is real? What is pretend?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Recognize that some books and other media portray animals and plants with characteristics that they do not have in real life. - Identify characteristics of real animals and plants and pretend animals and plants. - Compare real animals and plants and pretend animals and plants. | <p>HMH (2018) Unit 3 Animals: TE pp. 81-128</p> <p>Lesson 9: Living and Nonliving – SE pp.37-40 (2 days)</p> <p>Lesson 10: Real and Pretend – SE pp. 41-44 (2 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-livingnonliving.html</p> | <p>CROSSCUTTING CONCEPT: Pattern <i>Students recognize, classify, and record the patterns they observe in nature or man-made objects.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Analyzing and interpreting data <i>Students set a foundation for data analysis by recording their thoughts and observations about patterns and events in a manner that can be shared with others</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions (for science) and defining problems (for engineering) 2. Developing and using models 6. Constructing explanations (for science) and designing solutions (for engineering) 8. Obtaining, evaluating, and communicating information <p>Mathematics K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. MP.7 Look for and make use of structure</p> <p>English/Language Arts RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. RI.K.9 With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail. SL.K.6 Speak audibly and express thoughts, feelings, and ideas clearly. W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> |
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Week 8 Apples SW 5 Grocery Shopping

Week 9 Pumpkins

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Second Nine Weeks

| TN State Standards (Next Generation) | Vocabulary | Objectives/Learning Targets | Instructional Resources | Crosscutting Concept and Science and Engineering Principles |
|---|--|---|--|--|
| Week 1 Bug Safari, Hey Little Ant SW6 Keeping a Diary | | | | |
| DCI:ESS3: Earth and Human Activity | | | | |
| <p>K.ESS3: Earth and Human Activity</p> <p>1) Use a model to represent the relationship between the basic needs (shelter, food, water) of different plants and animals (including humans) and the places they live.</p> <p>3) Communicate solutions that will reduce the impact from humans on land, water, air, and other living things in the environment</p> <p>COMPONENT IDEA: A. Natural Resources</p> | <p>Lesson 3 Vocabulary: hand lens, thermometer, measuring cup, balance, ruler</p> <p>Lesson 4 Vocabulary: Engineer</p> | <p>Essential Question: How do we use Science Tools?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify science tools - Recognize how science tools help in investigations - Use a hand lens, a measuring cup, a thermometer, a balance, and a ruler to make observations and answer testable scientific questions - Describe safe ways to conduct investigations <p>Essential Question Lesson 4: How do engineers solve problems?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Explain that people find solutions to problems - Identify engineers as people who solve problems - Describe objects by drawing a picture | <p>The following resources do not discuss insects, but discuss the tools that are in the book Bug Safari and how we can use Science Tools.</p> <p>HMH (2018) Unit 1 Doing Science: TE pp. 1-48</p> <p>Lesson 3: Science Tools – SE: pp.9-12 (2 days)</p> <p>Lesson 4: Solving Problems – SE: pp.13-16 (2 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-insects-and-spiders.html</p> | <p>CROSSCUTTING CONCEPT:</p> <p>Cause and Effect <i>Students identify cause and effect relationships through observable patterns, utilizing simple tests to provide evidence that supports or refutes their ideas.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE:</p> <p>Developing and using models <i>Students make drawings, displays, and simple representations for events they experience through their senses, incorporating relative scales when appropriate.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions and defining problems 3. Planning and carrying out investigation 8. Obtaining, Evaluating, and Communicating Information <p>Mathematics</p> <p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p>MP.7 Look for and make use of structure</p> <p>English/Language Arts</p> <p>RI.K.1 With prompting and support, ask and answer questions about key details in a text.</p> <p>W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> <p>SL.K.1a Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).</p> <p>SL.K.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.</p> <p>SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.</p> |
| Week 2 Spiders SW4 Then and Now | | | | |

DCI:ESS3: Earth and Human Activity

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| <p>K.ESS3: Earth and Human Activity</p> <p>1) Use a model to represent the relationship between the basic needs (shelter, food, water) of different plants and animals (including humans) and the places they live.</p> <p>3) Communicate solutions that will reduce the impact from humans on land, water, air, and other living things in the environment.</p> <p>COMPONENT IDEA: A. Natural Resources</p> | <p>Vocabulary: Spider, fang, venom, prey, egg sac, web, silk</p> | <p>Essential Question: How are spiders different from insects?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Recognize that spider's bodies are different from insects. - Understand that not all spiders are the same. - Understand that spiders have different needs than insects. - Describe the body parts of a spider - Describe the habitats of some spiders | <p>Read to Be Ready Plans (There are no HMH plans for insects last week focused on the tools, this week will focus strictly on the R2BR plans)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-insects-and-spiders.html</p> | <p>CROSSCUTTING CONCEPT:</p> <p>Cause and Effect <i>Students identify cause and effect relationships through observable patterns, utilizing simple tests to provide evidence that supports or refutes their ideas.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Developing and using models <i>Students make drawings, displays, and simple representations for events they experience through their senses, incorporating relative scales when appropriate.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions and defining problems 3. Planning and carrying out investigation 8. Obtaining, Evaluating, and Communicating Information <p>Mathematics</p> <p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. MP.7 Look for and make use of structure</p> <p>English/Language Arts</p> <p>RI.K.1 With prompting and support, ask and answer questions about key details in a text. W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. SL.K.1a Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). SL.K.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. SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.</p> |
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Week 3 Veteran's Day, ReadWorks-Fly Our Flag for Veteran's Day, SW25 Chickasaw Culture

Week 4 A Turkey for Thanksgiving, In November, SW 11 Turkey Time

Week 5 Lily Learns About Needs and Wants, SW27 Wants and Needs

Week 6 The Scarecrow's Hat, SW 28 We Need Food and Clothing

Week 7 Gingerbread Man Stories, SW24 Pinata Party

Week 8 Hollidays Around the World, Polar Express SW9 Favorite Holidays



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Third Nine Weeks

| TN State Standards (Next Generation) | Vocabulary | Objectives/Learning Targets | Instructional Resources | Crosscutting Concept and Science and Engineering Principles |
|---|--|---|--|---|
| Week 1 The Year at Maplehill Farms, The Mitten, SW8 A Busy Schedule | | | | |
| DCI:ESS2: Earth's Systems | | | | |
| <p>K.ESS2: Earth's Systems</p> <p>2) Develop and use models to predict weather and identify patterns in spring, summer, autumn, and winter.</p> <p>COMPONENT IDEA: D. Weather and Climate</p> | <p>Lesson 25 Vocabulary: Spring, summer, fall, winter</p> | <p>Essential Question Lesson 25: What is real? What is pretend?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Recognize that some books and other media portray animals and plants with characteristics that they do not have in real life. - Identify characteristics of real animals and plants and pretend animals and plants. - Compare real animals and plants and pretend animals and plants. | <p>HMH (2018) Unit 6 Weather: TE pp. 199 - 250</p> <p>Lesson 25: Seasons – SE pp. 109-111 (2 days work with spring/summer)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-winter.html</p> | <p>CROSSCUTTING CONCEPT: Scale, Proportion, and Quantity <i>Students make comparisons using relative scales. (e.g., bigger or smaller, closer or further, sooner or later)</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Developing and using models <i>Students make drawings, displays, and simple representations for events they experience through their senses, incorporating relative scales when appropriate.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions and defining problems 2. Developing and using models 3. Planning and carrying out investigation 8. Obtaining, Evaluating, and Communicating Information <p>Mathematics</p> <p>K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>K.MD.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.</p> <p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p>MP3 Construct viable arguments and critique the reasoning of others.</p> <p>English/Language Arts</p> <p>RI.K.1 With prompting and support, ask and answer questions about key details in a text.</p> <p>RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI.K.9 With prompting and support, identify basic similarities in and differences between two texts on the same topic</p> <p>SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.</p> <p>W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> |
| Week 2 Animals in Winter, SW26 An Asian Celebration | | | | |

DCI:ESS2: Earth's Systems

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| <p>K.ESS2: Earth's Systems</p> <p>2) Develop and use models to predict weather and identify patterns in spring, summer, autumn, and winter</p> <p>COMPONENT IDEA: D. Weather and Climate</p> | <p>Lesson 25</p> <p>Vocabulary: Spring, summer, fall, winter</p> | <p>Essential Question Lesson 25: What is real? What is pretend?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Recognize that some books and other media portray animals and plants with characteristics that they do not have in real life. - Identify characteristics of real animals and plants and pretend animals and plants. - Compare real animals and plants and pretend animals and plants. | <p>HMH (2018)</p> <p>Unit 6 Weather: TE pp. 199 - 250</p> <p>Lesson 25: Seasons – SE pp. 112-114 (2 days work with fall/winter)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-winter.html</p> | <p>CROSSCUTTING CONCEPT: Scale, Proportion, and Quantity <i>Students make comparisons using relative scales. (e.g., bigger or smaller, closer or further, sooner or later)</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Developing and using models <i>Students make drawings, displays, and simple representations for events they experience through their senses, incorporating relative scales when appropriate.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions and defining problems 2. Developing and using models 3. Planning and carrying out investigation 8. Obtaining, Evaluating, and Communicating Information <p>Mathematics</p> <p>K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>K.MD.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.</p> <p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p>MP3 Construct viable arguments and critique the reasoning of others.</p> <p>English/Language Arts</p> <p>RI.K.1 With prompting and support, ask and answer questions about key details in a text.</p> <p>RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI.K.9 With prompting and support, identify basic similarities in and differences between two texts on the same topic</p> <p>SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.</p> <p>W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> |
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| Week 3 Ordinary People Change the World, I am Martin Luther King, Jr., SW10 Holidays Fall on all Days of the Week |
| Week 4 America the Beautiful, A is for America, SW14 Our Flags |
| Week 5 The Scrambled States of America, SW20 Need for Speed |
| Week 6 Celebrating Presidents' Day, SW15 Follow the Leader |
| Week 7 My Teacher for President, SW16 Our President |
| Week 8 Weather Forecasting, SW 29 Survival Skills |

DCI:ESS3: Earth and Human Activity

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| <p>K.ESS2: Earth's Systems</p> <p>(1) Analyze and interpret data to describe weather patterns that occur over time using simple graphs, pictorial weather symbols, and tools.</p> <p>(2) Develop and use models to predict weather and identify patterns in spring, summer, autumn and winter.</p> <p>COMPONENT IDEA: B. Natural Hazards</p> | <p>Lesson 21 Vocabulary: Weather, sunny, snowy, rainy, cloudy, windy</p> <p>Lesson 22 Vocabulary: Thermometer, windsock, rain gauge</p> | <p>Essential Question Lesson 21: What is weather?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify and describe weather conditions. - Observe and determine the effects of weather on human activities. - Observe and describe day-to-day weather changes. <p>Essential Question Lesson 22: How can we measure weather?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify and demonstrate the use of a thermometer, rain gauge and a windsock - Use common tools to measure weather - Use tools to observe and identify weather changes from day to day | <p>HMH (2018) Unit 6 Weather: TE pp. 199 - 250</p> <p>Lesson 21: Weather – SE pp. 89-94 (2 days)</p> <p>Lesson 22: Measuring Weather – SE pp. 95-98 (2 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-weather.html</p> | <p>CROSSCUTTING CONCEPT: Stability and Change <i>Students begin to question causes for stability and change and why some systems do not change.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Developing and using models <i>Students make drawings, displays, and simple representations for events they experience through their senses, incorporating relative scales when appropriate.</i></p> <p>Next Generation Science Standard Practices</p> <p>1. Asking questions and defining problems 3. Planning and carrying out investigation 8. Obtaining, Evaluating, and Communicating Information</p> <p>Mathematics K.MD.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. K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.1 MP3 Construct viable arguments and critique the reasoning of others.</p> <p>English/Language Arts RI.K.2 With prompting and support, identify the main topic and retell key details of a text. SL.K.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. SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail. W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> |
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Week 9 Read Across America

Week 10 [Clouds](#) SW30 Saving Money

DCI:ESS2: Earth's Systems

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| <p>K.ESS2: Earth's Systems</p> <p>(3) Analyze and interpret data to describe weather patterns that occur over time using simple graphs, pictorial weather symbols, and tools.</p> <p>(4) Develop and use models to predict weather and identify patterns in spring, summer, autumn and winter.</p> <p>COMPONENT IDEA: B. Natural Hazards</p> <p>K.ESS3: Earth's Systems</p> <p>(2) Explain the purpose of weather forecasting to prepare for and respond to severe weather in Tennessee</p> | <p>Lesson 23 Vocabulary: Cloud, cover</p> <p>Lesson 24 Vocabulary: Thunderstorm, tornado, hurricane</p> | <p>Essential Question Lesson 23: How can we predict weather?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify different kinds of cloud cover. - Describe weather patterns that occur over time. - Analyze and interpret weather data by looking at pictures. - Develop and use models to predict weather. <p>Essential Question Lesson 24: How can we prepare for severe weather?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify kinds of severe weather - Describe the purpose of weather forecasting - Identify ways people prepare for and respond to severe weather. | <p>HMH (2018) Unit 6 Weather: TE pp. 199 - 250</p> <p>Lesson 23: Predicting Weather – SE pp. 99-102 (2 days)</p> <p>Lesson 24: Severe Weather – SE pp. 103-108 (2 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-weather.html</p> | <p>CROSSCUTTING CONCEPT: Pattern <i>Students recognize, classify, and record the patterns they observe in nature or man-made objects.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Using mathematics and computational thinking <i>Students recognize patterns and make comparisons using counting and number lines.</i></p> <p>Next Generation Science Standard Practices 1. Asking questions and defining problems 3. Planning and carrying out investigation 8. Obtaining, Evaluating, and Communicating Information</p> <p>Mathematics K.MD.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. K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.1 MP3 Construct viable arguments and critique the reasoning of others.</p> <p>English/Language Arts RI.K.2 With prompting and support, identify the main topic and retell key details of a text. SL.K.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. SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail. W.K.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> |
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Fourth Nine Weeks

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| TN State Standards | Vocabulary | Objectives/Learning Targets | Instructional | Crosscutting Concept and Science and Engineering |
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| (Next Generation) | | Resources | Principles |
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| Week 1 The Tiny Seed SW31 Off to Work We Go! | | | |
| DCI:LS1: From Molecules to Organisms: Structures and Processes | | | |
| DCI:LS3: Heredity Inheritance and Variation of Traits | | | |
| <p>K.LS1: From Molecules to Organisms: Structures and Processes 1) Use information from observations to identify differences between plants and animals (locomotion, obtainment of food, and take in air/gasses).</p> <p>COMPONENT IDEA: A. Structure and Function A. Inheritance of Traits</p> | <p>Lesson 14 Vocabulary: Tree, shrub, grass</p> <p>Lesson 15 Vocabulary: Light, air, soil, space to grow, water</p> | <p>Essential Question Lesson 14: What are plants like?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify the similarities and differences between plants and animals. - Identify trees, shrubs and grasses as kinds of plants - Draw conclusions about kinds of plants - Sort plants into groups based on their physical characteristics - Examine variations among individuals of the same kind of plant <p>Essential Question Lesson 15: What do plants need?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify differences between plants and animals - Recognize that plants need water, air, light, soil and space to grow - Observe and compare the growth of plants - Infer reasons why plants are healthy or not healthy - Predict the growth of a plant based on whether it is getting what it needs. | <p>HMH (2018) Unit 4 Plants: TE pp. 129-162</p> <p>Lesson 14: Many Plants – SE pp. 59-62 (2 days)</p> <p>Lesson 15: What do Plants Need – SE pp. 63-66 (2 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-seeds.html</p> <p>CROSSCUTTING CONCEPT: Structure and Function <i>Students investigate how the roles of specific components of a system affect the functioning of the larger system.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Engaging in argument from evidence <i>Students create and identify evidence- based arguments and consider degree to which an argument is supported by evidence.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions and defining problems 2. Developing and using models 3. Planning and carrying out investigation 4. Analyzing and Interpreting Data 8. Obtaining, Evaluating, and Communicating Information <p>Mathematics K.MD.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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i> K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p>English/Language Arts RI.K.1 With prompting and support, ask and answer questions about key details in a text. SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.</p> |
| Week 2 Tops and Bottoms SW32 Buying Power | | | |
| DCI:LS1: From Molecules to Organisms: Structures and Processes | | | |
| DCI:LS3: Heredity Inheritance and Variation of Traits | | | |

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| <p>K.LS1: From Molecules to Organisms: Structures and Processes 1) Use information from observations to identify differences between plants and animals (locomotion, obtainment of food, and take in air/gasses).</p> <p>K.LS3.1: Heredity: Inheritance and Variation of Traits 1) Make observations to describe that young plants and animals resemble their parents</p> <p>COMPONENT IDEA: A. Structure and Function A. Inheritance of Traits</p> | <p>Lesson 16 Vocabulary: Leaf, roots, fruit, stem, flower, seeds</p> <p>Lesson 17 Vocabulary: Flower, see, sprout, seedling, adult plant</p> | <p>Essential Question Lesson 16: What are some plant parts?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Recognize that stems, roots, leaves, flowers, fruits and seeds are parts of plants - Observe and identify the parts of a plant - Describe how plant parts help a plant live <p>Essential Question Lesson 17: How do plants grow and change?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Describe the sequence of stages in a plant's life cycle - Observe stages that are part of the life cycle of a plant: seed, seedling, plant, flower and fruit - Identify ways that young plants resemble their parent plants | <p>HMH (2018) Unit 4 Plants: TE pp. 129-166</p> <p>Lesson 16: Plant Parts – SE pp. 67-70 (2 days)</p> <p>Lesson 17: Plants grow and change – SE pp. 71-74 (2 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-seeds.html</p> | <p>CROSSCUTTING CONCEPT: Structure and Function <i>Students investigate how the roles of specific components of a system affect the functioning of the larger system.</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Engaging in argument from evidence <i>Students create and identify evidence-based arguments and consider degree to which an argument is supported by evidence.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions (for science) and defining problems (for engineering) 2. Developing and using models 6. Constructing explanations (for science) and designing solutions (for engineering) 8. Obtaining, evaluating, and communicating information <p>Mathematics</p> <p>K.MD.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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i></p> <p>MP.7 Look for and make use of structure</p> <p>English/Language Arts</p> <p>RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>SL.K.1a Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).</p> <p>SL.K.1b Continue a conversation through multiple exchanges.</p> <p>SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood</p> <p>SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.</p> |
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Week 3 [Change It](#) SW13 Work, Then Play!

DCI:PS1: Matter and Its Interactions

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| <p>K.PS1: Matter and Its Interactions</p> <p>1) Plan and conduct an investigation to describe and classify different kinds of materials including wood, plastic, metal, cloth, and paper by their observable properties (color, texture, hardness, and flexibility and whether they are natural or human-made.</p> <p>2) Conduct investigations to understand that matter can exist in different states (solid and liquid) and has properties that can be observed and tested.</p> <p>COMPONENT IDEA: A. Structure and Properties of Matter</p> | <p>Lesson 6 Vocabulary: matter</p> <p>Lesson 7 Vocabulary: change</p> | <p>Essential Question Lesson 6: How do we describe and classify matter?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify matter as a solid, a liquid, or a gas - Observe and describe properties of objects - Compare and classify objects based on observable properties - Plan and conduct investigations to observe and test matter in different states <p>Essential Question Lesson 7: How can we change matter?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Describe how paper and clay can be changed - Recognize that the shape of materials can be changed by cutting, tearing smashing or rolling - Recognize physical changes of matter | <p>HMH (2018) Unit 2 Matter: TE pp. 49-80</p> <p>Lesson 6: Matter – SE pp. 23-28 (2 days)</p> <p>Lesson 7: Matter Can Change – SE pp. 29-32 (2 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-states-of-matter.html</p> | <p>CROSSCUTTING CONCEPT: Structure and Function <i>Students begin to track and describe changes in a system using relative scales</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Planning and carrying out controlled investigations <i>Students carry out investigations in groups, making decisions about suitable measurements for data collection in order to answer a question.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions (for science) and defining problems (for engineering) 3. Planning and carrying out investigations 6. Constructing explanations (for science) and designing solutions (for engineering) 7. Engaging in argument from evidence 8. Obtaining, evaluating, and communicating information <p>Mathematics</p> <p>K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p>MP5 Use appropriate tools strategically.</p> <p>English/Language Arts</p> <p>RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI.K.9 With prompting and support, identify basic similarities in and differences between two texts on the same topic</p> <p>SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.</p> <p>W.K.5 With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.</p> |
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Week 4 Change It! (Week 2) [Discovery Education: Videos on Matter](#)

DCI: PS1: Matter and Its Interactions

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| <p>K.PS1: Matter and Its Interactions</p> <p>3) Construct an evidence-based account of how an object made of a small set of pieces (blocks, snap cubes) can be disassembled and made into a new object.</p> <p>COMPONENT IDEA: A. Structure and Properties of Matter</p> | <p>Lesson 8 Vocabulary: Blocks, snap cubes</p> | <p>Essential Question Lesson 8: How can we make new objects?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Identify the parts and materials that make up an object - Use evidence to describe how objects can be taken apart or disassembled to make a new object - Use evidence to describe how different objects can be made from the same set of pieces | <p>HMH (2018) Unit 2 Matter: TE pp. 49-80</p> <p>Lesson 8: Making new objects – SE pp. 33-36 (3 days)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-states-of-matter.html</p> | <p><u>CROSSCUTTING CONCEPT:</u> Structure and Function <i>Students begin to track and describe changes in a system using relative scales</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Planning and carrying out controlled investigations <i>Students carry out investigations in groups, making decisions about suitable measurements for data collection in order to answer a question.</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions (for science) and defining problems (for engineering) 3. Planning and carrying out investigations 6. Constructing explanations (for science) and designing solutions (for engineering) 7. Engaging in argument from evidence 8. Obtaining, evaluating, and communicating information <p>Mathematics</p> <p>K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p>MP5 Use appropriate tools strategically.</p> <p>English/Language Arts</p> <p>RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI.K.9 With prompting and support, identify basic similarities in and differences between two texts on the same topic</p> <p>SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.</p> <p>W.K.5 With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.</p> |
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Week 5 [Home for a Tiger, Home for a Bear](#)

DCI:ESS3: Earth and Human Activity

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| <p>K.LS1: From Molecules to Organisms: Structure and Processes (1) Use information from observations to identify differences between plants and animals.</p> <p>K.ESS3: Earth and Human Activity (1) Use a model to represent the relationship between the basic needs of different plants and animals and the places they live.</p> <p>COMPONENT IDEA: A. Natural Resources</p> | <p>Lesson 11 Vocabulary: Fur, feathers, scales</p> <p>Lesson 12 Vocabulary: Food, air, water, shelter</p> <p>Lesson 13 Vocabulary: Life cycle</p> | <p>Essential Question Lesson 11: What are animals like?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Compare animals by size, shape or body coverings - Observe and describe similarities and differences in the appearance of animals - Identify and name body parts of animals - Identify ways animals move <p>Essential Question Lesson 12: What do animals need?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Observe and illustrate what an animal needs. - Recognize that animals need food, water, air and shelter to survive - Identify how people help pets meet their needs - Observe similarities between the basic needs of humans and the basic needs of other animals <p>Essential Question Lesson 13: How do animals grow and change?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Describe an animal's life cycle - Recognize that an animal's growth and change occur gradually - Recognize that some young animals look like their parents and some do not - Sequence pictures to show how animals grow and change | <p>HMH (2018) Unit 3 Animals: TE pp. 81-128</p> <p>Lesson 11: Many Animals – SE pp. 45-50 (2 days)</p> <p>Lesson 12: What Animals Need – SE pp. 51-54 (2 days)</p> <p>Lesson 13: Animals Grow and Change – SE pp. 55-58</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-habitats.html</p> | <p>CROSSCUTTING CONCEPT: Cause and Effect <i>Students identify cause and effect relationships through observable patterns, utilizing simple tests to provide evidence that supports or refutes their ideas</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Developing and using models <i>Students make drawings, displays, and simple representations for events they experience through their senses, incorporating relative scales when appropriate</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1. Asking questions and defining problems 2. Developing and using models 3. Planning and carrying out investigation 4. Analyzing and Interpreting Data 8. Obtaining, Evaluating, and Communicating Information <p>Mathematics</p> <p>K.MD.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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i></p> <p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p>English/Language Arts</p> <p>RI.K.1 With prompting and support, ask and answer questions about key details in a text.</p> <p>SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.</p> |
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Week 6 [Here is the African Savanna](#)

DCI:ESS3: Earth and Human Activity

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| <p>K.ESS3:EarthandHuman Activity (1) Use a model to represent the relationship between the basic needs (shelter,food, water) of different plants and animals (including humans) and the placethey live. (3) Communicate solutions that will reduce the impact from humans on land, water, air and other living things in the local environment.</p> <p>COMPONENT IDEA: A. Natural Resources</p> | <p>Lesson 18 Vocabulary: habitat</p> <p>Lesson 19 Vocabulary: Shelter</p> <p>Lesson 20 Vocabulary: pollution</p> | <p>Essential Question Lesson 18: Where do animals and plants live?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Understand that animals and plants are found in different habitats and environments - Know that animals need food, water, shelter and space to live - Describe different environments where animals and plants live - Make a model environment for animals and plants <p>Essential Question Lesson 19: Why do animals and plants need one another?</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Describe how many animals and plants depend on one another. - Understand how animals and plants can change their surroundings. <p>Essential Question Lesson 20: How can we protect habitats</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Describe pollution and how it affects living things in the environment. - Identify solutions that help to care for our land, air and water | <p>HMH (2018) Unit 5 Habitats: TE pp. 167-198</p> <p>Lesson 18: Homes for living things – SE pp. 75-78 (2 days)</p> <p>Lesson 19: Animals and Plants together – SE pp. 79-82 (2 days)</p> <p>Lesson 20: Caring for Habitats – SE pp. 83-88 (1 day)</p> <p>R2BR Lesson Plans: http://bcs-r2br.weebly.com/k-habitats.html</p> | <p>CROSSCUTTING CONCEPT: Cause and Effect <i>Students identify cause and effect relationships through observable patterns, utilizing simple tests to provide evidence that supports or refutes their ideas</i></p> <p>SCIENCE AND ENGINEERING PRINCIPLE: Developing and using models <i>Students make drawings, displays, and simple representations for events they experience through their senses, incorporating relative scales when appropriate</i></p> <p>Next Generation Science Standard Practices</p> <ol style="list-style-type: none"> 1.Asking questions and defining problems 2.Developing and using models 3.Planning and carrying out investigation 4.Analyzing and Interpreting Data 8. Obtaining, Evaluating, and Communicating Information <p>Mathematics K.MD.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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i> K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p>English/Language Arts RI.K.1 With prompting and support, ask and answer questions about key details in a text. SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.</p> |
| <p>Week 7 As the Crow Flies, SW2 Maps and Globes</p> | | | | |
| <p>Week 8 As the Crow Flies, SW3 What’s Your Address</p> | | | | |
| <p>Week 9 (Teacher Directed-Independence Day & Summer Weather and Summer Safety)</p> | | | | |

- The following standards are used throughout each science topic.
 - K.ETS1.1 – Ask and answer questions about the scientific world and gather information using the senses
 - K.ETS1.2 – Describe objects accurately by drawing and/or labeling pictures.

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- The explanations for each:
 - K.ETS.1.1 - **EXPLANATION:** Engineering leads to improvements in our daily lives and begins with the recognition of situations to be improved. Students should begin to explore how the observations they make can be helpful in thinking about design problems. In later grades, students will learn how to combine these observations in order to define problems which can be resolved through engineering.
 - K.ETS.1.2 - **EXPLANATION:** In early stages, the design process involves actively developing solutions in brainstorming sessions. To participate in collaborative settings, students must be able to make a physical representation of their ideas early in the design process in order to receive feedback from others. In later grades, students will transition from such preliminary drawings to the creation of detailed models and prototypes. The process of labeling such images allows students to recognize that their device consists of a number of smaller parts whose interactions must be considered and planned.
- The crosscutting concept for each:
 - K.ETS1.1 - **Systems and System Models** Students identify and describe parts and their roles in the inner workings as part of a larger system/object.
 - K.ETS1.2 - **Systems and System Models** Students identify and describe parts and their roles in the inner workings as part of a larger system/object.
- The Science and Engineering Principle for each:
 - K.ETS1.1 - **Developing and using models** Students make drawings, displays, and simple representations for events they experience through their senses, incorporating relative scales when appropriate.
 - K.ETS1.2 - **Developing and using models** Students develop a model, plan, or drawing representing a device.