

GRADE LEVEL: FIFTH GRADE

SUBJECT: SCIENCE

DATE: 2018-2019

GRADING PERIOD: QUARTER 1

MASTER COPY 5-3-18

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>LIFE SCIENCE</b>					
<ul style="list-style-type: none"> <li>• Movement of Matter</li> <li>• Food Chain</li> <li>• Energy Pyramid</li> </ul>	<p><b>5.LS.1</b> Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</p> <p><b>SEPS.8</b> Obtain, evaluate, and communicate information.</p>	<ul style="list-style-type: none"> <li>• Identify how plants and animals are made up of matter.</li> <li>• Create a model to show how matter flows through an energy pyramid.</li> <li>• Explain how a food chain is one piece of a food web.</li> <li>• Employ multiple sources to obtain information.</li> <li>• Clearly communicate to articulate ideas and methods.</li> <li>• Use diagrams to extend discussion.</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion</li> <li>• Quiz <ul style="list-style-type: none"> <li>– BrainPop: <i>Food Chains</i></li> <li>– BrainPop: <i>Energy Pyramid</i></li> </ul> </li> <li>• Food chain worksheet</li> <li>• Science notebook</li> <li>• Project</li> </ul>	<ul style="list-style-type: none"> <li>• Matter</li> <li>• Decomposers</li> <li>• Environment</li> <li>• Food chain</li> <li>• Food web</li> <li>• Energy pyramid</li> </ul>	IMPORTANT

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>LIFE SCIENCE</b>					
<ul style="list-style-type: none"> <li>• Interactions in Ecosystems</li> <li>• Producer/Consumer</li> <li>• Predator/Prey</li> <li>• Decomposers</li> </ul>	<p><b>5.LS.2</b> Observe and classify common Indiana organisms as producers, consumers, decomposers, or predator and prey based on their relationships and interactions with other organisms in their ecosystem.</p> <p><b>SEPS.3</b> Construct and perform investigations.</p>	<ul style="list-style-type: none"> <li>• Distinguish common Indiana organisms as producers, consumers, or decomposers.</li> <li>• Examine predator and prey relationships within an ecosystem.</li> <li>• Construct and perform investigations in the field or laboratory.</li> <li>• Draw detailed diagrams to document organisms found in an investigation.</li> <li>• Work collaboratively and individually to conduct investigation.</li> <li>• Monitor and record data and progress.</li> <li>• Evaluate to make changes to modify and repeat investigation if necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion</li> <li>• Small group project</li> <li>• Quiz               <ul style="list-style-type: none"> <li>– BrainPop: <i>Ecosystems</i></li> </ul> </li> <li>• Vocabulary quiz</li> <li>• Science notebook</li> </ul>	<ul style="list-style-type: none"> <li>• Producers</li> <li>• Consumers</li> <li>• Predator</li> <li>• Prey</li> <li>• Ecosystems</li> <li>• Decomposers</li> <li>• Investigation</li> <li>• Diagram</li> <li>• Data</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>LIFE SCIENCE</b>					
<ul style="list-style-type: none"> <li>• Animal Senses</li> <li>• Adaptations</li> </ul>	<p><b>5.LS.3</b> Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.</p> <p><b>SEPS.6</b> Construct explanations (for science) and design solutions (for engineering)</p>	<ul style="list-style-type: none"> <li>• Discuss how animals use their senses to process information from their environment.</li> <li>• Describe possible responses animals may have to information from their environment.</li> <li>• Research and explain how various animal adaptations help animals to survive.</li> <li>• Construct descriptions and explanations from an investigation.</li> <li>• Connect investigation to how the natural world works.</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion</li> <li>• Research project</li> </ul>	<ul style="list-style-type: none"> <li>• Animal senses</li> <li>• Adaptations</li> </ul>	ADDITIONAL

GRADE LEVEL: FIFTH GRADE

SUBJECT: SCIENCE

DATE: 2018-2019

GRADING PERIOD: QUARTER 2

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CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>EARTH AND SPACE SCIENCE</b>					
<ul style="list-style-type: none"> <li>Earth's Natural Resource</li> <li>Conservation</li> </ul>	<p><b>5.ESS.3:</b> Investigate ways individual communities within the United States protect the Earth's resources and environment.</p> <p><b>SEPS.1:</b> Pose questions (for science) and define problems (for engineering).</p>	<ul style="list-style-type: none"> <li>Identify ways local communities can help protect Earth's resources.</li> <li>Research local community programs that protect Earth's resources.</li> <li>Compare and evaluate competing ideas of using natural resources and alternative energy sources.</li> <li>Clarify problems to determine criteria for possible solutions.</li> <li>Identify constraints to solve problems about the designed world.</li> </ul>	<ul style="list-style-type: none"> <li>Class discussion</li> <li>Quiz <ul style="list-style-type: none"> <li>BrainPop: <i>Natural Resources, Humans &amp; Environment</i></li> </ul> </li> <li>Research Project</li> </ul>	<ul style="list-style-type: none"> <li>Natural resources</li> <li>Community programs</li> </ul>	ADDITIONAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>EARTH AND SPACE SCIENCE</b>					
<ul style="list-style-type: none"> <li>• Geosphere</li> <li>• Biosphere</li> <li>• Hydrosphere</li> <li>• Atmosphere</li> </ul>	<p><b>5.ESS.4:</b> Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.</p> <p><b>SEPS.7:</b> Engage in argument from evidence.</p>	<ul style="list-style-type: none"> <li>• Create a model to show Earth’s four spheres.</li> <li>• Identify how Earth’s geosphere, biosphere, hydrosphere, and atmosphere interact with each other.</li> <li>• Describe the role and function of each of Earth’s four spheres.</li> <li>• Use evidence to identify the best explanation for a natural phenomenon.</li> <li>• Build a model to collect evidence to evaluate claims.</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion</li> <li>• Terrarium project</li> <li>• Poster project</li> </ul>	<ul style="list-style-type: none"> <li>• Geosphere</li> <li>• Biosphere</li> <li>• Hydrosphere</li> <li>• Atmosphere</li> </ul>	IMPORTANT

GRADE LEVEL: FIFTH GRADE

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GRADING PERIOD: QUARTER 3

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CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>PHYSICAL SCIENCE</b>					
<ul style="list-style-type: none"> <li>Volume</li> <li>Mass</li> </ul>	<p><b>5.PS.1:</b> Describe and measure the volume and mass of a sample of a given material.</p> <p><b>SEPS.2:</b> Develop and use models and tools.</p>	<ul style="list-style-type: none"> <li>Define and measure volume of different materials.</li> <li>Define and measure mass of different materials.</li> <li>Identify and correctly use tools to evaluate questions and problems.</li> <li>Select and use appropriate tools to measure mass and volume.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher observation</li> <li>Class discussion</li> <li>Quiz <ul style="list-style-type: none"> <li>BrainPop: <i>Measuring Matter</i></li> </ul> </li> <li>Measurement worksheet</li> </ul>	<ul style="list-style-type: none"> <li>Volume</li> <li>Mass</li> <li>Graduated cylinder</li> <li>Pan balance</li> <li>Digital scale</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<p><b>PHYSICAL SCIENCE</b></p> <ul style="list-style-type: none"> <li>• Mass</li> <li>• Volume</li> <li>• Law of Conservation of Mass</li> </ul>	<p><b>5.PS.2:</b> Demonstrate that regardless of how parts of an object are assembled the mass of the whole object is identical to the sum of the mass of the parts; however, the volume can differ from the sum of the volumes. (Law of Conservation of Mass)</p> <p><b>SEPS.3:</b> Construct and perform investigations.</p>	<ul style="list-style-type: none"> <li>• Describe how the mass of an assembled object is equal to the sum of the mass of the parts.</li> <li>• Describe how the volume of an assembled object can differ from the sum of the volumes.</li> <li>• Construct and perform investigations in the field or laboratory.</li> <li>• Work collaboratively and individually to perform investigation.</li> <li>• Monitor and record progress of an investigation.</li> <li>• Evaluate to make changes and modify to repeat investigation if necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Class discussion</li> <li>• Small group experiment</li> <li>• Science notebook</li> </ul>	<ul style="list-style-type: none"> <li>• Law of Conservation of Mass</li> </ul>	<p>IMPORTANT</p>

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>PHYSICAL SCIENCE</b> <ul style="list-style-type: none"> <li>Matter</li> <li>Law of Conservation of Mass</li> </ul>	<p><b>5.PS.3:</b> Determine if matter has been added or lost by comparing mass when melting, freezing, or dissolving a sample of a substance. (Law of Conservation of Mass)</p> <p><b>SEPS.5:</b> Use mathematics and computational thinking.</p>	<ul style="list-style-type: none"> <li>Compare mass when melting, freezing, or dissolving a sample of a substance to determine if matter has been added or lost.</li> <li>Use appropriate tools to accurately measure if matter has been added or lost in an investigation.</li> <li>Understand how mathematical ideas interconnect.</li> <li>Solve equations exactly or approximately.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher observation</li> <li>Class discussion</li> <li>Small group experiment</li> <li>Graph or chart</li> </ul>	<ul style="list-style-type: none"> <li>Matter</li> <li>Melting</li> <li>Freezing</li> <li>Dissolving</li> <li>Substance</li> </ul>	IMPORTANT
<ul style="list-style-type: none"> <li>Weight</li> <li>Gravity</li> <li>Mass</li> <li>Matter</li> </ul>	<p><b>5.PS.4:</b> Describe the difference between weight being dependent on gravity and mass comprised of the amount of matter in a given substance or material.</p> <p><b>SEPS.4:</b> Analyze and interpret data.</p>	<ul style="list-style-type: none"> <li>Identify that weight is dependent on gravity.</li> <li>Identify that mass is the amount of matter in an object.</li> <li>Compare and contrast weight and mass.</li> <li>Record weight and mass data in an investigation.</li> <li>Produce data to derive meaning.</li> <li>Use a range of tools to identify the significant features in data.</li> </ul>	<ul style="list-style-type: none"> <li>Class discussion</li> <li>Quiz <ul style="list-style-type: none"> <li>BrainPop <i>Gravity</i></li> </ul> </li> <li>Science notebook</li> <li>Graph or chart</li> </ul>	<ul style="list-style-type: none"> <li>Weight</li> <li>Gravity</li> </ul>	ADDITIONAL

GRADE LEVEL: FIFTH GRADE

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GRADING PERIOD: QUARTER 4

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CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>EARTH AND SPACE SCIENCE</b>					
<ul style="list-style-type: none"> <li>• Solar System</li> <li>• Scale</li> <li>• Sun</li> <li>• Moon</li> <li>• Planets</li> <li>• Asteroids</li> <li>• Comets</li> </ul>	<p><b>5.ESS.1:</b> Analyze the scale of our solar system and its components: our solar system includes the sun, moon, seven other planets and their moons, and many other objects like asteroids and comets.</p> <p><b>SEPS.2:</b> Develop and use models and tools.</p>	<ul style="list-style-type: none"> <li>• Identify components of our solar system including the sun, moon, planets and moons, asteroids, and comets.</li> <li>• Analyze the scale of our solar system.</li> <li>• Build a scale model of the solar system.</li> <li>• Use models to communicate ideas.</li> <li>• Identify and correctly use tools to construct, obtain, and evaluate questions and problems.</li> <li>• Use rulers, meter sticks, or tape measures to measure and build a model of the solar system.</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion</li> <li>• Small group project – model of solar system to scale</li> <li>• BrainPop – Solar System, Sun, Asteroids, Comets, Moon, each planet</li> </ul>	<ul style="list-style-type: none"> <li>• Scale</li> <li>• Solar system</li> <li>• Sun</li> <li>• Moon</li> <li>• Planets</li> <li>• Asteroids</li> <li>• Comets</li> </ul>	IMPORTANT

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>EARTH AND SPACE SCIENCE</b>					
<ul style="list-style-type: none"> <li>• Data Graphs</li> <li>• Shadows</li> <li>• Day/Night</li> <li>• Seasons</li> <li>• Stars</li> <li>• Constellations</li> </ul>	<p><b>5.ESS.2:</b> Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.</p> <p><b>SEPS.4:</b> Analyze and interpret data.</p>	<ul style="list-style-type: none"> <li>• Observe and record patterns of daily changes in length and direction of shadows.</li> <li>• Explain the pattern of day, night, and seasons.</li> <li>• Recognize the appearance of some stars/constellations dependent upon the season.</li> <li>• Create a graph or chart to display data collected.</li> <li>• Use tools to identify the significant features of data.</li> <li>• Identify sources of error in investigations.</li> <li>• Analyze results of a graph, chart or investigation by asking questions.</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion</li> <li>• Small group project</li> <li>• BrainPop – Stars, Constellations</li> </ul>	<ul style="list-style-type: none"> <li>• Data</li> <li>• Graphs</li> <li>• Shadows</li> <li>• Seasons</li> <li>• Stars</li> <li>• Constellations</li> </ul>	IMPORTANT

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCAB	PRIORITY
<b>ENGINEERING</b>					
<ul style="list-style-type: none"> <li>• Problem Solving</li> <li>• Design</li> </ul>	<b>3-5.E.1:</b> Identify a simple problem with the design of an object that reflects a need or a want. Include criteria for success and constraints on materials, time, or cost.	<ul style="list-style-type: none"> <li>• Identify a problem with the design of an object.</li> <li>• Apply a solution that addresses constraints put on materials, time, or cost.</li> <li>• Develop criteria for a successful design.</li> </ul>	<ul style="list-style-type: none"> <li>• Investigation</li> <li>• Presentation</li> <li>• Science notebook</li> <li>• Diagram</li> <li>• Written summary</li> </ul>	<ul style="list-style-type: none"> <li>• Need</li> <li>• Want</li> <li>• Problem</li> <li>• Solution</li> <li>• Cost</li> <li>• Criteria</li> </ul>	ADDITIONAL
<ul style="list-style-type: none"> <li>• Problem Solving</li> <li>• Solutions</li> </ul>	<b>3-5.E.2:</b> Construct and compare multiple plausible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.	<ul style="list-style-type: none"> <li>• Compare and contrast solutions to a problem.</li> <li>• Identify which solution will best meet the criteria and restrictions of the problem.</li> </ul>	<ul style="list-style-type: none"> <li>• Class discussion</li> <li>• Teacher observation</li> <li>• Investigation</li> <li>• Presentation</li> <li>• Science notebook</li> <li>• Diagram</li> <li>• Written summary</li> </ul>	<ul style="list-style-type: none"> <li>• Plausible solution</li> <li>• Criteria</li> <li>• Constraints</li> </ul>	ADDITIONAL
<ul style="list-style-type: none"> <li>• Fair Investigations</li> <li>• Variables</li> <li>• Failure points</li> <li>• Improvements</li> </ul>	<b>3-5.E.3:</b> Construct and perform fair investigations in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	<ul style="list-style-type: none"> <li>• Construct an investigation with a controlled variable and independent/dependent variables.</li> <li>• Identify aspects of a model that could be improved.</li> </ul>	<ul style="list-style-type: none"> <li>• Investigation</li> <li>• T-chart</li> <li>• Science notebook</li> <li>• Teacher observation</li> <li>• Class discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Fair investigations</li> <li>• Independent variable</li> <li>• Dependent variable</li> <li>• Controlled variable</li> </ul>	ADDITIONAL