



**FOSS Full Option Science System  
(FOSS™)  
GRADES K-8**

**CORRELATION  
TO**

**COLORADO  
SCIENCE STANDARDS**



# **FULL OPTION SCIENCE SYSTEM (FOSS)**

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**GRADES K-8**

The following is a correlation of the Colorado Standards for Science to the Full Option Science System Program (FOSS). This correlation lists representative examples of investigations and activities that address the grade level expectations. A citation does not necessarily reflect all of the activities from FOSS that might address a particular expectation.

Note: Included with some of the grade level expectations are references from prior grade levels of FOSS modules that also contribute to the attainment of the expectation at that grade level.

## KINDERGARTEN

**Standard Physical Science:** Students know and understand common properties, forms, and changes in matter and energy.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. Objects can move in a variety of ways that can be described by speed and direction.	<b>Wood and Paper</b> Investigation 1, Parts 4-5, pp. 24-32 <b>Trees</b> Weather Tools 5 and 6, pp. 18-24 <b>Animals Two by Two</b> Investigation 1, Part 3, pp. 22-25
2. Objects can be sorted by physical properties, which can be observed and measured.	<b>Wood and Paper</b> Investigation 1, Part 4, pp. 24-27 Investigation 3, Part 4, pp. 22-25 <b>Fabric</b> Investigation 2, Part 1, pp. 7-11 Science Stories, pp. 7-11

**Standard Life Science:** Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. Organisms can be described and sorted by their physical characteristics	<b>Trees</b> Investigation 1, Parts 1, 5-6, pp. 7-14, 25-30 Investigation 2, Parts 1-3, pp. 6-19 Investigation 3, Parts 4, 8, pp. 19-21, 32-34 <b>Animals Two by Two</b> Investigation 1, Parts 1, 4, pp. 10-16, 26-29 Investigation 2, Parts 1, 3, pp. 8-12, 18-21 Investigation 3, Parts 1, 3, pp. 8-12, 17-20 Investigation 4, Parts 1-2, pp. 8-15 Science Stories, pp. 4-23

**Standard Earth Science:** Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. The sun provides heat and light to Earth.	<b>Trees</b> Investigation 1, Parts 2, 8, pp. 15-19, 35-37 Science Stories, pp. 16, 20

## GRADE ONE

*Standard Physical Science:* Students know and understand common properties, forms, and changes in matter and energy.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. Solids and liquids have unique properties that distinguish them.	<p><b>Solids and Liquids</b>            Investigation 1, Parts 1-3, pp. 8-24            Investigation 2, Parts 1-3, pp. 10-27            Investigation 3, Part 3, pp. 23-27            Science Stories, pp. 4-13</p>

*Standard Life Science:* Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. Offspring have characteristics that are similar to but not exactly like their parent's characteristics.	<p><b>Insects</b>            Investigations 1-6, all parts            Science Stories, pp. 16-23</p> <p><b>New Plants</b>            Investigation 1, Parts 2-3, pp. 13-30</p> <p><b>Plants and Animals</b>            Investigation 2, Parts 1-3, pp. 87-108</p> <p><b>Insects and Plants</b>            Investigation 1, Parts 1-3, pp. 52-75            Investigation 2, Part 3, pp. 105-115            Investigation 3, Parts 1-3, pp. 129-151            Science Resources, pp. 20-24, 42</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Animals Two by Two</b>            Science Stories, pp. 22-23            FOSSWEB, Activity: Find the Parents</p>
2. An organism is a living thing that has physical characteristics to help it survive.	<p><b>Insects</b>            Investigations 1-6, all parts            Science Stories, pp. 8-15            Fossweb, Activity: Insect Hunt</p> <p><b>New Plants</b>            Investigation 1, Parts 2-3, pp. 13-30            Investigation 2, Parts 1-3, pp. 8-28            Investigation 4, Parts 1-2, pp. 7-19            Science Stories, pp. 3-15, 22-43</p>

	<p><b>Plants and Animals</b>  Investigation 1, Parts 2-3, pp. 58-72  Investigation 2, Parts 1-3, pp. 87-108  Investigation 3, Parts 1-3, pp. 120-140  Science Resources, pp. 3-12, 16-19, 21-25, 28-45  Video: How Plants Get Food</p> <p><b>Insects and Plants</b>  Investigation 1, Parts 1-3, pp. 52-75  Investigation 2, Part 3, pp. 105-115  Investigation 5, Parts 1-3, pp. 206-225  Science Resources, pp. 3-13, 15-19, 26-31</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Animals Two by Two</b>  Investigation 1, Parts 1, 4, pp. 10-16, 26-29  Investigation 2, Parts 1, 3, pp. 9-13, 18-21  Investigation 3, Parts 1, 3, pp. 8-12, 17-20  Investigation 4, Parts 1-2, pp. 8-14  Science Stories, pp. 4-23</p>
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**Standard Earth Science:** Students know and understand the processes and interactions of Earth’s systems and the structure and dynamics of Earth and other objects in space.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. Earth’s materials can be compared and classified based on their properties.	<p><b>Pebbles, Sand and Silt</b>  Investigation 1, Parts 1-4, pp. 8-25  Investigation 2, Parts 1-4, pp. 8-29  Investigation 4, Parts 1-3, pp. 8-25  Science Stories, pp. 6, 8-9  FOSSWEB, Activity: Find Earth Materials</p>

## GRADE TWO

Standard Physical Science: Students know and understand common properties, forms, and changes in matter and energy.

GRADE LEVEL EXPECTATION	FOSS
<p>1. Changes in speed or direction of motion are caused by forces such as pushes or pulls.</p>	<p><b>Balance and Motion</b>            Investigation 2, Parts 1-3, pp. 8-25            Investigation 3, Parts 1-3, pp. 6-25            Science Stories, pp. 10-21, 26-31</p> <p><b>Air and Weather</b>            Investigation 1, Parts 3-6, pp. 17-38            Investigation 3, Parts 2-5, pp. 12-33</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Trees</b>            Weather Tools 5 and 6, pp. 18-24</p> <p><b>Wood and Paper</b>            Investigation 1, Parts 4-5, pp. 24-32</p>

Standard Life Science: Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

GRADE LEVEL EXPECTATION	FOSS
<p>1. Organisms depend on their habitat's nonliving parts to satisfy their needs.</p>	<p><b>Insects</b>            Investigation 1, Part 1, pp. 8-15            Investigation 3, Part 2, pp. 12-20            Investigation 5, Part 1, pp. 10-15            Science Stories, pp. 4-11, 126-31, 39-41</p> <p><b>New Plants</b>            Investigation 1, Parts 2-3, pp. 13-30            Investigation 2, Parts 1-3, pp. 8-28            Science Stories, pp. 3-11, 22-39</p> <p><b>Plants and Animals</b>            Investigation 3, Parts 1-2, pp. 120-134            Science Resources, pp. 3-7, 21-24, 29-45            Video: How Plants Get Food</p> <p><b>Insects and Plants</b>            Investigation 1, Part 1, pp. 52-61            Investigation 2, Part 1, pp. 91-94            Investigation 4, Part 2, pp. 170-174</p> <p><i>Previous grade level modules also support</i></p>

<p>2. Each plant or animal has different structures or behaviors that serve different functions.</p>	<p><i>the attainment of this student expectation. See below:</i></p> <p><b>Animals Two by Two</b> Investigation 1, Part 2, pp. 17-21 Investigation 3, Part 2, pp. 13-16</p> <p><b>Trees</b> Investigation 1, Parts 2, 8, pp. 15-19, 35-37 FOSSWEB, Activity: Who Lives Here</p> <p><b>Insects</b> Investigations 1-6, all parts Science Stories, pp. 8-15 FOSSWEB, Activity: Insect Hunt</p> <p><b>New Plants</b> Investigation 1, Parts 2-3, pp. 13-30 Investigation 2, Parts 1-3, pp. 8-28 Investigation 4, Parts 1-2, pp. 7-19 Science Stories, pp. 3-15, 22-43</p> <p><b>Plants and Animals</b> Investigation 1, Parts 2-3, pp. 58-72 Investigation 2, Parts 1-3, pp. 87-108 Investigation 3, Parts 1-3, pp. 120-140 Science Resources, pp. 3-12, 16-19, 21-25, 28-45 Video: How Plants Get Food</p> <p><b>Insects and Plants</b> Investigation 1, Parts 1-3, pp. 52-75 Investigation 2, Part 3, pp. 105-115 Investigation 5, Parts 1-3, pp. 206-225 Science Resources, pp. 3-13, 15-19, 26-31</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Animals Two by Two</b> Investigation 1, Parts 1, 4, pp. 10-16, 26-29 Investigation 2, Parts 1, 3, pp. 9-13, 18-21 Investigation 3, Parts 1, 3, pp. 8-12, 17-20 Science Stories, pp. 4-23</p>
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**Standard Earth Science:** Students know and understand the processes and interactions of Earth’s systems and the structure and dynamics of Earth and other objects in space.

GRADE LEVEL EXPECTATION	FOSS
1. Weather and the changing seasons	<b>Air and Weather</b>

<p>impact the environment and organisms such as humans, plants, and other animals.</p>	<p>Science Stories, pp. 7-13, 16-23 FOSSWEB, Activity; What's the Weather</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Trees</b> Investigation 1, Part 1, pp. 7-14 Investigation 3, Part 1, 3-9, pp. 10-11, 15-38 Science Stories, pp. 14-23</p>
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## GRADE THREE

Standard Physical Science: Students know and understand common properties, forms, and changes in matter and energy.

GRADE LEVEL EXPECTATION	FOSS
<p>1. Matter exists in different states such as solids, liquids, and gases and can change from one state to another by heating and cooling.</p>	<p><b>Water</b>            Investigation 1, Part 1, pp. 8-13            Investigation 2, Part 3, pp. 19-24            Investigation 3, Parts 1-4, pp. 8-26            Science Stories, pp. 5-9, 13-16</p> <p><b>Measurement</b>            Science Stories, pp. 32-33</p> <p><b>Matter and Energy</b>            Investigation 4, Part 2, pp. 181-192            Science Resources, pp. 39-42, 54-59</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Solids and Liquids</b>            Investigation 1, Parts 1-2, pp. 8-20            Investigation 2, Parts 1-3, pp. 10-27            Investigation 4, Parts 1-3, pp. 7-27            Science Stories, pp. 4-17            FOSSWEB, Activity: Change It</p>

Standard Life Science: Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

GRADE LEVEL EXPECTATION	FOSS
<p>1. The duration and timing of life cycle events such as reproduction and longevity vary across organisms and species.</p>	<p><b>Structures of Life</b>            Investigation 2, Part 3, pp. 18-22            Science Stories, pp. 20-21            FOSSWEB, Activity: Life Cycles</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Insects</b>            Investigation 1, Parts 1-5, all parts            Science Stories, pp. 16-31</p> <p><b>Insects and Plants</b>            Investigations 1-5, all parts            Science Resources, pp. 20-24, 37-55</p>

	<b>New Plants</b> Investigation 1, Parts 2-3, pp. 13-30
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***Standard Earth Science:*** Students know and understand the processes and interactions of Earth’s systems and the structure and dynamics of Earth and other objects in space.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. Earth’s materials can be broken down and/or combined into different materials such as rocks, minerals, rock cycle, formation of soil, and sand – some of which are usable resources for human activity.	<b>Earth Materials</b> Investigation 1, Parts 1-3, pp. 8-29 Investigation 2, Part 1, pp. 8-13 Investigation 3, Parts 1-2, pp. 8-19 Investigation 4, Part 1, pp. 8-13 Science Stories, pp. 10-15, 30-36  <i>Previous grade level modules also support the attainment of this student expectation. See below:</i> <b>Pebbles, Sand and Silt</b> Investigation 2, Parts 1-4, pp. 8-29 Investigation 4, Parts 1-3, pp. 8-25 Science Stories, pp. 4-5, 10-13, 20-23

## GRADE FOUR

*Standard Physical Science:* Students know and understand common properties, forms, and changes in matter and energy.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
<p>1. Energy comes in many forms such as light, heat, sound, magnetic, chemical, and electrical.</p>	<p><b>Magnetism and Electricity</b>            Investigation 2, Parts 1-4, pp. 8-29            Investigation 3, Parts 1-3, pp. 10-26            Investigation 4, Parts 1-2, pp. 8-18            Science Stories, pp. 10-12, 33</p> <p><b>Physics of Sound</b>            Investigation 1, Part 3, pp. 21-29            Investigation 2, Parts 1-3, pp. 8-24            Science Stories, pp. 6, 14, 22-27</p> <p><b>Matter and Energy</b>            Investigation 1, Parts 1-3, pp. 50-82            Science Resources, pp. 1-13, 18-21</p> <p><b>Ideas and Inventions</b>            Investigation 4, Parts 1-3, pp. 8-25            Science Stories, pp. 23-25, 28-29</p>

*Standard Life Science:* Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
<p>1. All living things share similar characteristics, but they also have differences that can be described and classified.</p>	<p><b>Structures of Life</b>            Investigation 1, Part 1, pp. 8-17            Investigation 3, Part 1, pp. 8-15            Investigation 4, Parts 1-2, pp. 8-19            Science Stories, pp. 1, 17-18, 41-42</p> <p><b>Human Body</b>            Investigations 1, Parts 1-3, pp. 8-25            Science Stories, pp. 1-5, 9-16, 28-29</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Insects</b>            Investigations 1-6, all parts            Science Stories, pp. 12-15, 42-46</p> <p><b>New Plants</b>            Investigation 2, Parts 1-2, pp. 8-19            Science Stories, pp. 12-15, 42-46</p> <p><b>Insects and Plants</b></p>

<p>2. Comparing fossils to each other or to living organisms reveals features of prehistoric environments and provides information about organisms today.</p> <p>3. There is interaction and interdependence between and among living and nonliving components of systems.</p>	<p>Investigations 1, 2-5, all parts Science Resources, pp. 20-33</p> <p><b>Plants and Animals</b> Investigation 1, Parts 1-2, pp. 47-62 Science Resources, pp. 16-19, 47-51 See also</p> <p><b>Trees</b> <b>Animals Two by Two</b></p> <p><b>Earth Materials</b> Science Stories, p. 4</p> <p><b>Structures of Life</b> Science Stories, pp. 45-48</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Pebbles, Sand and Silt</b> Science Stories, pp. 26-31</p> <p><b>Structures of Life</b> Investigation 1, Parts 2-3, pp. 18-33 Investigation 2, Parts 1-3, pp. 8-22 Investigation 3, Parts 2-4, pp. 16-30 Science Stories, pp. 2-5, 10-11, 17-18, 22-36</p> <p><b>Water</b> Science Stories, pp. 5-7</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Insects</b> Investigation 1, Part 1, pp. 8-15 Investigation 3, Part 2, pp. 12-20 Investigation 5, Part 1, pp. 10-15 Science Stories, pp. 4-11, 126-31, 39-41</p> <p><b>New Plants</b> Investigation 1, Parts 2-3, pp. 13-30 Investigation 2, Parts 1-3, pp. 8-28 Science Stories, pp. 3-11, 22-39</p> <p><b>Plants and Animals</b> Investigation 3, Parts 1-2, pp. 120-134 Science Resources, pp. 3-7, 21-24, 29-45 Video: How Plants Get Food</p>
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	<p><b>Insects and Plants</b>  Investigation 1, Part 1, pp. 52-61  Investigation 2, Part 1, pp. 91-94  Investigation 4, Part 2, pp. 170-174</p> <p><b>Animals Two by Two</b>  Investigation 1, Part 2, pp. 17-21  Investigation 3, Part 2, pp. 13-16</p> <p><b>Trees</b>  Investigation 1, Parts 2, 8, pp. 15-19, 35-37  FOSSWEB, Activity: Who Lives Here</p>
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*Standard Earth Science:* Students know and understand the processes and interactions of Earth’s systems and the structure and dynamics of Earth and other objects in space.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. Earth is part of the solar system, which includes the Sun, Moon, and other bodies that orbit the Sun in predictable patterns that lead to observable paths of objects in the sky as seen from Earth.	<p><b>Sun, Moon and Stars</b>  Investigation 3, Part 2, pp. 126-130  Science Resources, pp. 1-3, 16-19, 25-28</p> <p><b>Ideas and Inventions</b>  Science Stories, pp. 33-37</p>

## GRADE FIVE

*Standard Physical Science:* Students know and understand common properties, forms, and changes in matter and energy.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. Mixtures of matter can be separated regardless of how they were created; all weight and mass of the mixture are the same as the sum of the weight and mass of the parts.	<p><b>Mixtures and Solutions</b> Investigation 1, Parts 1-4, pp. 8-29 Investigation 2, Parts 1-4, pp. 8-28</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Solids and Liquids</b> Investigation 3, Part 2, pp. 14-18 Investigation 3, Science Extension, p. 31</p>

*Standard Life Science:* Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
1. All organisms have structures and systems with separate functions.	<p><b>Environments</b> Investigation 1, Part 2, pp. 16-19 Investigation 2, Parts 1-3, pp. 10-25 Investigation 4, Parts 1, 3, pp. 8-12, 19-22 Investigation 5, Parts 1-2, pp. 8-18 Science Stories, pp. 17-22, 42</p> <p><b>Living Systems</b> Investigation 1, Parts 1-3, pp. 51-70 Investigation 2, Part 1, pp. 85-90 Science Resources, pp. 2-13, 16-20</p> <p><b>Food and Nutrition</b> Science Stories, pp. 6-9, 44-50</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Human Body</b> Investigation 1-3, all parts Science Stories, pp. 10-16, 28-29</p> <p><b>Structures of Life</b> Investigation 2, Parts 1-3, pp. 8-22 Investigation 3, Part 1, pp. 8-15 Investigation 4, Parts 1-2, pp. 8-19 Science Stories, pp. 1-2, 17-18, 22-34, 39-</p>

<p>2. Human body systems have basic structures, functions, and needs.</p>	<p>42 See also: <b>Insects</b> <b>New Plants</b> <b>Plants and Animals</b> <b>Insects and Plants</b></p> <p><b>Food and Nutrition</b> Science Stories, pp. 6-9, 44-50 <b>Living Systems</b> Investigation 1, Parts 1-3, pp. 57-70 Science Resources, pp. 2-13</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Human Body</b> Investigations 1-3, all parts Science Stories, pp. 1-4, 10, 12-16, 28-29 <b>Physics of Sound</b> Science Stories, pp. 7-8</p>
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**Standard Earth Science:** Students know and understand the processes and interactions of Earth’s systems and the structure and dynamics of Earth and other objects in space.

GRADE LEVEL EXPECTATION	FOSS
<p>1. Earth and Sun provide a diversity of renewable and non renewable resources.</p>	<p><b>Water Planet</b> Science Resources, pp. 64-66 <b>Food and Nutrition</b> Science Stories, pp. 1-4, 10-13, 22-23, 43 <b>Solar Energy</b> Investigation 2, Part 1, pp. 8-15 Investigation 4, pp. 1-3, pp. 8-28 Science stories, pp. 29-39 FOSSWEB, Activity: Match the Resource</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Water</b> Science Stories, pp. 10-11, 17-18, 23 <b>Matter and Energy</b> Science Resources, pp. 1-5, 8-11, 18-19 <b>Earth Materials</b> Science Stories, pp. 12-15, 24-29</p>



## GRADE SIX

Standard Physical Science: Students know and understand common properties, forms, and changes in matter and energy.

GRADE LEVEL EXPECTATION	FOSS
<p>1. All Matter is made of atoms, which are far too small to see directly through a light microscope. Elements have unique atoms and thus, unique properties. Atoms themselves are made of even smaller particles.</p>	<p><b>Mixtures and Solutions</b> Science Stories, pp. 3-6, 25-28</p> <p><b>Chemical Interactions</b> Investigation 2, Parts 1-2, pp. 75-80 Investigation 9, Parts 1-2, pp. 280-297 Resources, pp. 3-15, 96 Video: Atoms and Molecules</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Measurement</b> Science Stories, pp. 30-31</p>
<p>2. Atoms may stick together in well-defined molecules or be packed together in large arrangements. Different arrangements of atoms into groups compose all substances.</p>	<p><b>Mixtures and Solutions</b> Science Stories, 25-28</p> <p><b>Chemical Interactions</b> Investigation 9, Parts 1-4, pp. 280-312 Investigation 10, Parts 1-2, pp. 323-336 Resources, pp. 63-67, 73-77, 96 Video: Atoms and Molecules</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Measurement</b> Science Stories, pp. 30-31</p>
<p>3. The physical characteristics and changes of solid, liquid, and gas states can be explained using the particulate model.</p>	<p><b>Water Planet</b> Science Resources, pp. 28-30, 34, 38</p> <p><b>Weather and Water</b> Investigation 4, Part 2, pp. 131-139 Investigation 5, Parts 2-3, pp. 163-174 CD, Molecules in Solids, Liquids and Gases</p> <p><b>Chemical Interactions</b> Investigation 3, Parts 2-3, pp. 99-99-113 Investigation 4, Parts 1-3, pp. 122-141 Investigation 5, Parts 1-3, pp. 153-171 Resources, pp. 14-48</p>

<p>4. Distinguish among, explain, and apply the relationships among mass, weight, volume, and density.</p>	<p>CD, Particles in Solid, Liquid and Gas</p> <p><b>Planetary Science</b> Investigation 8, Parts 3-4, pp. 260-270</p> <p><b>Weather and Water</b> Investigation 5, Part 1, pp. 152-162 Resources, pp. 27-31</p>
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***Standard Life Science:*** Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

<i>GRADE LEVEL EXPECTATION</i>	<i>FOSS</i>
<p>1. Changes in environmental conditions can affect the survival of individual organisms, populations, and entire species.</p>	<p><b>Environments</b> Investigation 3, Parts 1-3, pp. 8-22 Investigation 4, Parts 1-3, pp. 8-22 Investigation 6, Parts 1-2, pp. 8-17 Science Stories, pp. 33-36, 43-45, 49-51 FOSSWEB, Activity: Virtual Aquarium</p> <p><b>Populations and Ecosystems</b> Investigation 6, Part 3, pp. 191-197 Investigation 8, Parts 1-2, pp. 228-243 Resources, pp. 22-24, 25-29, 31-41, 58-63</p>
<p>2. Organisms interact with each other and their environment in various ways that create a flow of energy and cycling of matter in an ecosystem.</p>	<p><b>Environments</b> Investigation 1, Parts 1-2, pp. 8-18 Investigation 2, Parts 2-4, pp. 16-30 Investigation 3, Parts 1-3, pp. 8-22 Science Stories, pp. 1-12, 23-28, 31-35, 38-41, 43-45, 53-55</p> <p><b>Populations and Ecosystems</b> Investigation 3, Part 3, pp. 103-107 Investigation 4, Parts 1-2, pp. 119-129 Investigation 5, Parts 1-4, pp. 142-169 Resources, pp. 8-30 CD, Mono Lake: Food Web</p> <p><b>Diversity of Life</b> Investigation 6, Parts 1-3, pp. 186-202 Investigation 8, Part 2, pp. 244-252 Resources, pp. 31-39</p>

Standard Earth Science: Students know and understand the processes and interactions of Earth’s systems and the structure and dynamics of Earth and other objects in space.

GRADE LEVEL EXPECTATION	FOSS
<p>1. Complex interrelationships exist between Earth’s structure and natural processes that over time are both constructive and destructive.</p> <p>2. Water on Earth is distributed and circulated through oceans, glaciers, rivers, ground water, and the atmosphere.</p> <p>3. Earth’s natural resources provide the foundations for human society’s physical needs. Many natural resources are non renewable on human timescales, while other can be renewed or recycled.</p>	<p><b>Landforms</b>            Investigation 2, Parts 1-2, pp. 8-22            Investigation 3, Parts 1-2, pp. 8-24            Science Stories, pp. 15-19, 22-29            FOSSWEB, Movie: Volcanic Eruption</p> <p><b>Earth History</b>            Investigation 4, Parts 3-4, pp. 138-149            Resources, pp. 100-105            Video: Weathering and Erosion</p> <p><b>Water Planet</b>            Investigation 4, Part 1, pp. 67-70            Science Resources, pp. 67-70</p> <p><b>Weather and Water</b>            Investigation 7, Parts 1-2, pp. 232-243            CD, Cycles: Water Cycle</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Solar Energy</b>            Science Stories, pp. 22-24</p> <p><b>Water</b>            Science Stories, pp. 1-2, 4, 14-16</p> <p><b>Water Planet</b>            Science Resources, pp. 64-66</p> <p><b>Weather and Water</b>            Resources, pp. 45-47</p> <p><b>Electronics</b>            Resources, pp. 12-13</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Solar Energy</b>            FOSSWEB, Activity: Match the Resource</p> <p><b>Water</b>            Science Stories, pp. 10-11, 17-18, 23            FOSSWEB, Activity: Match the Resource</p>

## GRADE SEVEN

*Standard Physical Science:* Students know and understand common properties, forms, and changes in matter and energy.

GRADE LEVEL EXPECTATION	FOSS
1. Mixtures of substances can be separated based on their properties such as solubility, boiling points, magnetic properties and densities.	<p><b>Chemical Interactions</b> Investigation 8, Part 1, pp. 248-255</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Mixtures and Solutions</b> Investigations 1, Parts 1-4, pp. 8-29</p>

*Standard Life Science:* Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

GRADE LEVEL EXPECTATION	FOSS
1. Individual organisms with certain traits are more likely than others to survive and have offspring in a specific environment.	<p><b>Populations and Ecosystems</b> Investigation 10, Parts 1-3, pp. 302-317 Resources, pp. 58-63 Video: Voyage to the Galapagos</p>
2. The human body is composed of atoms, molecules, cells, tissues, organs, and organ systems that have specific functions and interactions.	<p><b>Human Brain and Senses</b> Investigation 2, Parts 1-3, pp. 67-83 Resources, pp. 29-30, 36-37, 43-46, 63-74 CD, Vision: How the Eye Works</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Food and Nutrition</b> Science Stories, pp. 6-9, 44-50</p> <p><b>Living Systems</b> Investigation 1, Parts 1-3, pp. 51-70 Science Resources, pp. 2-13</p>
3. Cells are the smallest unit of life that can function independently and perform all the necessary functions of life.	<p><b>Diversity of Life</b> Investigation 3, Parts 1-3, pp. 102-122 Investigation 4, Parts 1-2, pp. 133-141 Resources, pp. 24-30</p> <p><i>Previous grade level modules also support the attainment of this student expectation.</i></p>

<p>4. Photosynthesis and cellular respiration are important processes by which energy is acquired and utilized by organisms.</p> <p>5. Multiple lines of evidence show the evolution of organisms over geologic time.</p>	<p><i>See below:</i></p> <p><b>Living Systems</b> Investigation 1, Part 1, pp. 51-59 Science Resources, pp. 1-2</p> <p><b>Food and Nutrition</b> Science Stories, p. 41</p> <p><b>Diversity of Life</b> Resources, p. 36</p> <p><b>Populations and Ecosystems</b> Investigation 5, Part 2, pp. 151-155 Resources, pp. 14-15</p> <p><i>Previous grade level modules also support the attainment of this student expectation.</i></p> <p><i>See below:</i></p> <p><b>Living Systems</b> Investigation 3, Parts 1-2, pp. 118-135 Science Resources, pp. 19, 31-36, 47-48</p> <p><b>Food and Nutrition</b> Science Stories, p. 43</p> <p><b>Earth History</b> Investigation 7, Parts 1-2, pp. 234-243 Resources, pp. 83-86 CD, Time Room</p>
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**Standard Earth Science:** Students know and understand the processes and interactions of Earth’s systems and the structure and dynamics of Earth and other objects in space.

GRADE LEVEL EXPECTATION	FOSS
<p>1. Major geologic events such as earthquakes, volcanic eruptions, mid-ocean ridges, and mountain formation are associated with plate boundaries and attributed to plate motions.</p> <p>2. Geologic time, history, and changing life forms are indicated by fossils and successive sedimentation, folding, faulting, and uplifting of layers of sedimentary rock.</p>	<p><b>Earth History</b> Resources, pp. 98-105</p> <p><i>Previous grade level modules also support the attainment of this student expectation.</i></p> <p><i>See below:</i></p> <p><b>Landforms</b> Science Stories, pp. 23-25</p> <p><b>Earth History</b> Investigation 5, Part 4, pp. 188-193 Investigation 6, Part 4, pp. 220-224 Investigation 7, Parts 1-2, pp. 234-243 Resources, pp. 73-77, 81-86 CD, Time Room</p>

## GRADE EIGHT

Standard Physical Science: Students know and understand common properties, forms, and changes in matter and energy.

GRADE LEVEL EXPECTATION	FOSS
<p>1. Identify and calculate the direction and magnitude of forces that act on an object, and explain the results in the object’s change of motion.</p>	<p><b>Force and Motion</b>            Investigation 1, Parts 1-2, pp. 47-62            Investigation 2, Part 3, pp. 89-99            Investigation 5, Part 4, pp. 194-201            Investigation 6, Parts 1-4, pp. 218-245            Investigation 7, Parts 1-3, p. 256-272            Investigation 8, Parts 1-2, pp. 284-301</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Levers and Pulleys</b>            Investigation 1, Parts 1-2, pp. 18-28            Investigation 3, Parts 1-2, pp. 8-20            Investigation 4, Parts 1-2, p. 8-20            Science Stories, pp. 1-3, 16-17</p>
<p>2. There are different forms of energy, and those forms of energy can be changed from one form to another – but total energy is conserved.</p>	<p><b>Electronics</b>            Investigation 1, Parts 1-3, pp. 55-70            Resources, pp. 1-2</p> <p><b>Force and Motion</b>            Investigation 2, Part 3, pp. 89-94</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Solar Energy</b>            Investigation 2, Part 2, pp. 16-24            Investigation 3, Parts 1-2, pp. 8-23            Science Stories, pp. 1-3, 24-32, 38-39</p> <p><b>Variables</b>            Investigation 3, Parts 1-2, pp. 8-19</p> <p><b>Matter and Energy</b>  <b>Physics of Sound</b>  <b>Ideas and Inventions</b>  <b>Magnetism and Electricity</b></p>
<p>3. Distinguish between physical and chemical changes, noting that mass is</p>	<p><b>Chemical Interactions</b>            Investigation 7, Parts 1-5, pp. 204-234</p>



which influences individuals' traits in the next generation.	Resources, pp. 46-55
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***Standard Earth Science:*** Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.

GRADE LEVEL EXPECTATION	FOSS
1. Weather is a result of complex interactions of Earth's atmosphere, land and water that are driven by energy from the Sun, and can be predicted and described through complex models.	<p><b>Weather and Water</b> The investigations and readings in this entire module support this expectation.</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Water Planet</b> Investigation 4, Parts 1-3, pp. 184-211 Science Resources, pp. 42-51, 67-92</p>
2. Earth has a variety of climates defined by average temperature precipitation, humidity, air pressure, and wind that have changed over time in a particular location.	<p><b>Weather and Water</b> Investigation 9, Part 3, pp. 311-314 CD, Climate Factors: Climate Regions</p>
3. The solar system is comprised of various objects that orbit the Sun and are classified based on their characteristics.	<p><b>Planetary Science</b> Investigation 10, Parts 1-3, pp. 312-324 Resources, pp. 83-89 CD, Planet Images</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Water Planet</b> Investigation 1, Parts 1-2, pp. 50-66 Science Resources, pp. 1-13, 20-22</p> <p><b>Ideas and Inventions</b> <b>Sun, Moon and Stars</b></p>
4. The relative positions and motions of the Earth, Moon, and Sun can be used to explain observable effects such as seasons, eclipses, and Moon phases.	<p><b>Planetary Science</b> Investigation 3, Parts 1-2, pp. 89-98 Investigation 9, Parts 1-3, pp. 283-298 CD, Lunar Calendar CD, Day/Night Simulation CD, Phases of the Moon</p> <p><b>Weather and Water</b> Investigation 3, Parts 2-3, pp. 97-110</p>

	<p>Resources, pp. 17-19 CD, Cycles: Seasons</p> <p><i>Previous grade level modules also support the attainment of this student expectation. See below:</i></p> <p><b>Ideas and Inventions</b> <b>Sun, Moon and Stars</b></p>
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