



# Science Curriculum Improvement Study SCIS 3+ Grades K-6

Correlation With

## Indiana State Science Educational Standards



# FOSS Correlation with Indiana State Educational Science Standards

## Kindergarten – *BEGINNINGS* Curriculum

Standard 1 <b>The Nature of Science and Technology</b>		Excellent	Adequate	Needs Development
<b><i>K.1.1 Raise questions about the natural world.</i></b>				
<b>Support from Current Curriculum:</b>	<ul style="list-style-type: none"> <li>Ch. 1 Building Terrariums</li> <li>Ch. 2 Observing Seeds</li> <li>Ch. 3 Germinating Seeds</li> <li>Ch. 4 Adding Animals to Terrariums</li> <li>Ch. 5 Observing Animal Behavior</li> <li>Ch. 6 Growing Plants</li> <li>Ch. 12 Blending Colors</li> <li>Ch. 31 Using Odor Boxes</li> <li>Ch. 32 Identifying Odors</li> <li>Ch. 34 Reviewing Odor</li> <li>Ch. 35 Receiving Organisms</li> <li>Ch. 39 Using Sound Boxes</li> <li>Ch. 40 Identifying Sounds in the Classroom</li> </ul>			
<b><i>K.1.2 Begin to demonstrate that everyone can do science.</i></b>				
<b>Support from Current Curriculum:</b>	All Beginnings Chapters			
Standard 2 <b>Scientific Thinking</b>		Excellent	Adequate	Needs Development
<b><i>K.2.1 Use whole numbers, up to 10, in counting, identifying, sorting, and describing objects and experiences.</i></b>				
<b>Support from Current Curriculum:</b>	<ul style="list-style-type: none"> <li>Ch. 15 Stringing Beads by Color</li> <li>Ch. 21 Identifying Shapes of Classroom Objects</li> <li>Ch. 36 Observing Organisms</li> <li>Ch. 38 Aquatic Organisms</li> <li>Ch. 44 Measuring the Size of Children</li> <li>Ch. 49 Counting Beads</li> <li>Ch. 50 Comparing Quantities of Objects</li> <li>Ch. 51 Comparing Quantities of Water</li> <li>Ch. 52 Reviewing Quantity</li> </ul>			
<b><i>K.2.2 Draw pictures and write words to describe objects and experiences.</i></b>				
<b>Support from Current Curriculum:</b>	<ul style="list-style-type: none"> <li>Ch. 4 Adding Animals to Terrariums</li> <li>Ch. 7 Going on a Plant Walk</li> <li>Ch. 18 Describing Blocks by Shape</li> <li>Ch. 44 Measuring the Size of Children</li> </ul>			

<b>Standard 3</b>		<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>The Physical Setting</b>				
<b>K.3.1 Describe objects in terms of the materials they are made of, such as clay, cloth, paper, etc.</b>				
<b>Support from Current Curriculum:</b>	Ch. 2 Observing Seeds Ch. 31 Using Odor Boxes Ch. 39 Using Sound Boxes			
<b>K.3.2 Investigate that things move in different ways, such as fast, slow, etc.</b>				
<b>Support from Current Curriculum:</b>	Ch. 5 Observing Animal Behavior Ch. 37 Observing Animals and How They Move Ch. 38 Aquatic Organisms			
<b>Standard 4</b>		<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>The Living Environment</b>				
<b>K.4.1 Give examples of plants and animals.</b>				
<b>Support from Current Curriculum:</b>	Ch. 3 Germinating Seeds Ch. 4 Adding Animals to Terrariums Ch. 5 Observing Animal Behavior Ch. 6 Growing Plants Ch. 7 Going on a Plant Walk Ch. 8 Land Organisms Ch. 35 Receiving Organisms Ch. 36 Observing Aquariums Ch. 37 Observing Animals and How They Move Ch. 38 Aquatic Organisms			
<b>K.4.2 Observe plants and animals, describing how they are alike and how they are different in the way they look and in the things they do.</b>				
<b>Support from Current Curriculum:</b>	Ch. 3 Germinating Seeds Ch. 4 Adding animals to Terrariums Ch. 5 Observing Animal Behavior Ch. 6 Growing Plants Ch. 7 Going on a Plant Walk Ch. 36 Observing Aquariums Ch. 37 Observing Animals and How They Move Ch. 38 Aquatic Organisms			
<b>Standard 5</b>		<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>The Mathematical World</b>				
<b>K.5.1 Use shapes - such as circles, squares, rectangles, and triangles - to describe different objects.</b>				
<b>Support from Current Curriculum:</b>	Ch. 4 Adding Animals to Terrariums Ch. 18 Describing Blocks by Shape Ch. 19 Outlining, Painting, and Drawing Shapes Ch. 20 Finding Shapes in Totem Pole Posters Ch. 21 Identifying Shapes of Classroom Objects Ch. 22 Stringing Beads by Shape Ch. 23 Comparing Shapes Ch. 24 Reviewing Shape Ch. 55 Describing the Location of Parts of Totem Poles			

Standard 6

# Common Themes

Excellent

Adequate

Needs  
Development

***K.6.1 Describe an object by saying how it is similar to or different from another object.***

**Support from  
Current  
Curriculum:**

- Ch. 2 Observing Seeds
- Ch. 25 Describing the Texture of Objects
- Ch. 26 Playing Touch Screen Games
- Ch. 27 Recognizing Objects in Touch Tubes
- Ch. 28 Making Texture Collages
- Ch. 29 Describing the Texture of Organisms
- Ch. 30 Reviewing Texture
- Ch. 37 Observing Animals and How They Move
- Ch. 38 Aquatic Organisms
- Ch. 41 Playing Musical Instruments and Making Rhythms
- Ch. 45 Observing the Size of Classroom Objects
- Ch. 47 Using Magnifiers

# FOSS Correlation with Indiana State Educational Science Standards

## Grade One – *Material Objects and Organisms Curriculum*

Standard 1 <b>The Nature of Science and Technology</b>	Excellent	Adequate	Needs Development
<b>1.1.1 Observe, describe, draw, and sort objects carefully to learn about them.</b>			
<b>Support from Current Curriculum:</b>	<p style="color: red; margin: 0;"><u><b>Material Objects Curriculum</b></u></p> <ul style="list-style-type: none"> <li>Ch. 1 Objects in the Classroom</li> <li>Ch. 2 Button Box</li> <li>Ch. 3 Objects in the Environment</li> <li>Ch. 4 Touching Objects Games</li> <li>Ch. 5 Object Collections</li> <li>Ch. 6 Grouping Collections of Objects</li> <li>Ch. 7 Sorting Metals and Woods</li> <li>Ch. 8 One or Many Materials</li> <li>Ch. 9 Investigating Rocks</li> <li>Ch. 10 Investigating Sand and Soil</li> <li>Ch. 11 Grouping and Subgrouping</li> <li>Ch. 12 Properties of Shells</li> <li>Ch. 13 Serial Ordering</li> <li>Ch. 14 Comparing Wood in Different Forms</li> <li>Ch. 15 Comparing and Mixing Liquids</li> <li>Ch. 16 Rock Candy and Sugar Cubes</li> <li>Ch. 17 Solid and Liquid Water</li> <li>Ch. 18 Floating and Nonfloating Objects</li> <li>Ch. 19 Experiences with Air and Helium</li> <li>Ch. 20 Experimenting with Air and Helium</li> </ul> <p style="color: red; margin: 0;"><u><b>Organisms Curriculum</b></u></p> <ul style="list-style-type: none"> <li>Ch. 1 Observing and Planting Seeds</li> <li>Ch. 2 Growing Plants</li> <li>Ch. 3 Preparing Aquaria</li> <li>Ch. 4 Building and Observing Aquaria</li> <li>Ch. 5 Male and Female Guppies</li> <li>Ch. 6 Birth and Growth of Guppies and Snails</li> <li>Ch. 7 Death in an Aquarium</li> <li>Ch. 8 Observing Organisms and Where They Live</li> <li>Ch. 9 “Inventing” the Concept of Habitat</li> <li>Ch. 10 What Made the Water Green?</li> <li>Ch. 11 Filtering Green Water</li> <li>Ch. 12 Daphnia</li> <li>Ch. 13 Guppies Eat Daphnia</li> <li>Ch. 14 What is the “Black Stuff?”</li> <li>Ch. 15 “Inventing” Decay</li> <li>Ch. 16 Soil Fertility</li> <li>Ch. 17 Setting Up Aquaria at Home</li> </ul>		
<b>1.1.2 Investigate and make observations to seek answers to questions about the world, such as “In what ways do animals move?”</b>			
<b>Support from</b>	<p style="color: red; margin: 0;"><u><b>Material Objects Curriculum</b></u></p> <ul style="list-style-type: none"> <li>Ch. 1 Objects in the Classroom</li> </ul>		

<p><b>Current Curriculum:</b></p>	<p>Ch. 2 Button Box  Ch. 3 Objects in the Environment  Ch. 4 Touching Objects Games  Ch. 5 Object Collections  Ch. 6 Grouping Collections of Objects  Ch. 7 Sorting Metals and Woods  Ch. 8 One or Many Materials  Ch. 9 Investigating Rocks  Ch. 10 Investigating Sand and Soil  Ch. 11 Grouping and Subgrouping  Ch. 12 Properties of Shells  Ch. 13 Serial Ordering  Ch. 14 Comparing Wood in Different Forms  Ch. 15 Comparing and Mixing Liquids  Ch. 16 Rock Candy and Sugar Cubes  Ch. 17 Solid and Liquid Water  Ch. 18 Floating and Nonfloating Objects  Ch. 19 Experiences with Air and Helium  Ch. 20 Experimenting with Air and Helium  <u><b>Organisms Curriculum</b></u>  Ch. 1 Observing and Planting Seeds  Ch. 2 Growing Plants  Ch. 3 Preparing Aquaria  Ch. 4 Building and Observing Aquaria  Ch. 5 Male and Female Guppies  Ch. 6 Birth and Growth of Guppies and Snails  Ch. 7 Death in an Aquarium  Ch. 8 Observing Organisms and Where They Live  Ch. 9 "Inventing" the Concept of Habitat  Ch. 10 What Made the Water Green?  Ch. 11 Filtering Green Water  Ch. 12 Daphnia  Ch. 13 Guppies Eat Daphnia  Ch. 14 What is the "Black Stuff?"  Ch. 15 "Inventing" Decay  Ch. 16 Soil Fertility  Ch. 17 Setting Up Aquaria at Home</p>
<p><b>1.1.3 Recognize that and demonstrate how people can learn much about plants and animals by observing them closely over a period of time. Recognize also that care must be taken to know the needs of living things and how to provide for them.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><u><b>Organisms Curriculum</b></u>  Ch. 1 Observing and Planting Seeds  Ch. 2 Growing Plants  Ch. 3 Preparing Aquaria  Ch. 4 Building and Observing Aquaria  Ch. 5 Male and Female Guppies  Ch. 6 Birth and Growth of Guppies and Snails  Ch. 7 Death in an Aquarium  Ch. 8 Observing Organisms and Where They Live  Ch. 9 "Inventing" the Concept of Habitat  Ch. 10 What Made the Water Green?  Ch. 11 Filtering Green Water  Ch. 12 Daphnia  Ch. 13 Guppies Eat Daphnia  Ch. 14 What is the "Black Stuff?"  Ch. 15 "Inventing" Decay  Ch. 16 Soil Fertility  Ch. 17 Setting Up Aquaria at Home</p>

<b>1.1.4 Use tools, such as rulers and magnifiers, to investigate the world and make observations.</b>				
<b>Support from Current Curriculum:</b>	<p><u><b>Material Objects Curriculum</b></u>  Ch. 3 Objects in the Environment  Ch. 5 Object Collections  Ch. 6 Grouping Collections of Objects  Ch. 8 One or Many Materials  Ch. 9 Investigating Rocks  Ch. 10 Investigating Sand and Soil  Ch. 14 Comparing Wood in Different Forms  Ch. 16 Rock Candy and Sugar Cubes  Ch. 17 Solid and Liquid Water  Ch. 20 Experimenting with Air and Water</p> <p><u><b>Organisms Curriculum</b></u>  Ch. 1 Observing and Planting Seeds  Ch. 3 Preparing Aquaria  Ch. 6 Birth and Growth of Guppies and Snails  Ch. 12 Daphnia  Ch. 14 What is the "Black Stuff?"</p>			
<b>Standard 2</b>		<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>Scientific Thinking</b>				
<b>1.2.1 Use whole numbers, up to 100, in counting, identifying, measuring, and describing objects and experiences.</b>				
<b>Support from Current Curriculum:</b>	<p><u><b>Material Objects Curriculum</b></u>  Ch. 2 Button Box (pg. 21 Science and Math)  Ch. 5 Object Collections  Ch. 12 Properties of Shells  Ch. 13 Serial Ordering</p> <p><u><b>Organisms Curriculum</b></u>  Ch. 1 Observing and Planting Seeds (pg. 20 Science and Math)  Ch. 2 Growing Plants (pg. 29 Science and Math)  Ch. 12 Daphnia  Ch. 14 What is the "Black Stuff?"</p>			
<b>1.2.2 Use sums and differences of single digit numbers in investigations and judge the reasonableness of the answers.</b>				
<b>Support from Current Curriculum:</b>	<p><u><b>Material Objects Curriculum</b></u>  Ch. 6 Grouping Collections of Objects (pg. 58 Science and Math)  Ch. 9 Investigating Rocks (pg. 78 Science and Math)</p>			
<b>1.2.3 Explain to other students how to go about solving numerical problems.</b>				
<b>Support from Current Curriculum:</b>	<p><u><b>Material Objects Curriculum</b></u>  Ch. 9 Investigating Rocks (pg. 78 Science and Math)</p>			
<b>1.2.4 Measure the length of objects having straight edges in inches, centimeters, or non-standard units.</b>				
<b>Support from Current Curriculum:</b>				
<b>1.2.5 Demonstrate that magnifiers help people see things they could not see without them.</b>				
<b>Support from Current Curriculum:</b>	<p><u><b>Material Objects Curriculum</b></u>  Ch. 3 Objects in the Environment  Ch. 5 Object Collections  Ch. 6 Grouping Collections of Objects</p>			

	<p>Ch. 9 Investigating Rocks  Ch. 10 Investigating Sand and Soil  Ch. 14 Comparing Wood in Different Forms  Ch. 16 Rock Candy and Sugar Cubes  Ch. 17 Solid and Liquid Water  <u><b>Organisms Curriculum</b></u>  Ch. 1 Observing and Planting Seeds  Ch. 3 Preparing Aquaria  Ch. 6 Birth and Growth of Guppies and Snails  Ch. 12 Daphnia  Ch. 14 What is the “Black Stuff?”</p>
<p><b>1.2.6 Describe and compare objects in terms of number, shape, texture, size, weight, color, and motion.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><u><b>Material Objects Curriculum</b></u>  Ch. 1 Objects in the Classroom  Ch. 2 Button Box  Ch. 4 Touching Objects Games  Ch. 6 Grouping Collections of Objects  Ch. 7 Sorting Metals and Woods  Ch. 8 One or Many Materials  Ch. 9 Investigating Rocks  Ch. 12 Properties of Shells  Ch. 13 Serial Ordering  Ch. 14 Comparing Wood in Different Forms  Ch. 16 Rock Candy and Sugar Cubes  Ch. 17 Solid and Liquid Water  Ch. 18 Floating and Nonfloating Objects  <u><b>Organisms Curriculum</b></u>  Ch. 1 Observing and Planting Seeds  Ch. 2 Growing Plants  Ch. 3 Preparing Aquaria  Ch. 4 Building and Observing Aquaria  Ch. 5 Male and Female Guppies  Ch. 6 Birth and Growth of Guppies and Snails  Ch. 7 Death in an Aquarium  Ch. 8 Observing Organisms and Where They Live  Ch. 10 What Made the Water Green?  Ch. 11 Filtering Green Water  Ch. 12 Daphnia  Ch. 15 “Inventing” Decay  Ch. 16 Soil Fertility</p>
<p><b>1.2.7 Write brief informational descriptions of a real object, person, place, or event using information from observations.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><u><b>Material Objects Curriculum</b></u>  Ch. 12 Properties of Shells  Ch. 16 Rock Candy and Sugar Cubes  <u><b>Organisms Curriculum</b></u>  Ch. 2 Growing Plants  Ch. 4 Building and Observing Aquaria  Ch. 5 Male and Female Guppies  Ch. 6 Birth and Growth of Guppies and Snails  Ch. 7 Death in an Aquarium  Ch. 8 Observing Organisms and Where They Live  Ch. 9 “Inventing” the Concept of Habitat  Ch. 10 What Made the Water Green?  Ch. 12 Daphnia  Ch. 13 Guppies Eat Daphnia  Ch. 14 What is the “Black Stuff?”  Ch. 16 Soil Fertility</p>

Standard 3 <b>The Physical Setting</b>		Excellent	Adequate	Needs Development
1.3.1 <i>Recognize and explain that water can be a liquid or a solid and can go back and forth from one form to the other. Investigate by observing that if water is turned into ice and then the ice is allowed to melt, the amount of water is the same as it was before freezing.</i>				
Support from Current Curriculum:	<u>Material Objects Curriculum</u> Ch. 17 Solid and Liquid Water (pg. 160 Science Challenge)			
1.3.2 <i>Investigate by observing and then describe that water left in an open container disappears, but water in a closed container does not disappear.</i>				
Support from Current Curriculum:				
1.3.3 <i>Investigate by observing and also measuring that the sun warms the land, air, and water.</i>				
Support from Current Curriculum:				
1.3.4 <i>Investigate by observing, and then describe how things move in many different ways, such as straight, zigzag, round-and-round, and back-and-forth.</i>				
Support from Current Curriculum:				
1.3.5 <i>Recognize that and demonstrate how things near the Earth fall to the ground unless something holds them up.</i>				
Support from Current Curriculum:				
Standard 4 <b>The Living Environment</b>		Excellent	Adequate	Needs Development
1.4.1 <i>Identify when stories give attributes to plants and animals, such as the ability to speak, that they really do not have.</i>				
Support from Current Curriculum:	<u>Organisms Curriculum</u> Ch. 9 "Inventing" the Concept of Habitat			
1.4.2 <i>Observe and describe that there can be differences, such as size or markings, among the individuals within one kind of plant or animal group.</i>				
Support from Current Curriculum:	<u>Organisms Curriculum</u> Ch. 2 Growing Plants Ch. 5 Male and Female Guppies Ch. 6 Birth and Growth of Guppies and Snails			
1.4.3 <i>Observe and explain that animals eat plants or other animals for food.</i>				

<b>Support from Current Curriculum:</b>	<u><b>Organisms Curriculum</b></u> Ch. 6 Birth and Growth of Guppies and Snails Ch. 11 Filtering Green Water Ch. 12 Daphnia Ch. 13 Guppies Eat Daphnia Ch. 17 Setting Up Aquaria at Home			
<b>1.4.4 Explain that most living things need water, food, and air.</b>				
<b>Support from Current Curriculum:</b>	<u><b>Organisms Curriculum</b></u> Ch. 1 Observing and Planting Seeds Ch. 2 Growing Plants Ch. 4 Building and Observing Aquaria Ch. 6 Birth and Growth of Guppies and Snails Ch. 8 Observing Organisms and Where They Live Ch. 9 "Inventing" the Concept of Habitat Ch. 12 Daphnia Ch. 13 Guppies Eat Daphnia Ch. 16 Soil Fertility Ch. 17 Setting Up Aquaria at Home			
<b>Standard 5</b> <b>The Mathematical World</b>		<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>1.5.1 Use numbers, up to 10, to place objects in order, such as first, second, and third, and to name them, such as bus numbers or phone numbers.</b>				
<b>Support from Current Curriculum:</b>	<u><b>Material Objects Curriculum</b></u> Ch. 8 One or Many Materials Ch. 16 Rock Candy and Sugar Cubes Ch. 17 Solid and Liquid Water			
<b>1.5.2 Make and use simple picture graphs to tell about observations.</b>				
<b>Support from Current Curriculum:</b>	<u><b>Material Objects Curriculum</b></u> Ch. 5 Object Collections (pg. 42 Science and Math) Ch. 7 Sorting Metals and Woods (pg. 64 Science and Math) <u><b>Organisms Curriculum</b></u> Ch. 1 Observing and Planting Seeds (pg. 20 Science and Math)			
<b>1.5.3 Observe and describe similar patterns, such as shapes, designs, and events that may show up in nature, like honeycombs, sunflowers, or shells. See similar patterns in the things people make like quilts, baskets, or pottery.</b>				
<b>Support from Current Curriculum:</b>	<u><b>Material Objects Curriculum</b></u> Ch. 12 Properties of Shells			
<b>Standard 6</b> <b>Common Themes</b>		<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>1.6.1 Observe and describe that models, such as toys, are like the real things in some ways but different in others.</b>				
<b>Support from Current Curriculum:</b>	<u><b>Material Objects Curriculum</b></u> Ch. 6 Grouping Collections of Objects (pg. 58 Science and the Arts)			
<b>1.6.2 Observe that and describe how certain things change in some ways and stay the same in others, such as in their color, size, and weight.</b>				

<b>Support from Current Curriculum:</b>	<p><b><u>Material Objects Curriculum</u></b> Ch. 7 Sorting Metals and Woods Ch. 11 Grouping and Subgrouping Ch. 12 Properties of Shells Ch. 13 Serial Ordering Ch. 14 Comparing Wood in Different Forms Ch. 16 Rock Candy and Sugar Cubes</p> <p><b><u>Organisms Curriculum</u></b> Ch. 2 Growing Plants Ch. 5 Male and Female Guppies Ch. 6 Birth and Growth of Guppies and Snails</p>
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# FOSS Correlation with Indiana State Educational Science Standards

## Grade Two – *Interaction and Systems and Life Cycles Curriculum*

Standard 1 <b>The Nature of Science and Technology</b>		Excellent	Adequate	Needs Development
<b>2.1.1 Manipulate an object to gain additional information about it.</b>				
<b>Support from Current Curriculum:</b>	<p style="color: red; margin: 0;"><u><b>Interaction and Systems Curriculum</b></u></p> <p style="color: red; margin: 0;">Ch. 1 Which Objects Float?</p> <p style="color: red; margin: 0;">Ch. 2 Grouping and Sorting</p> <p style="color: red; margin: 0;">Ch. 3 Material Hunt</p> <p style="color: red; margin: 0;">Ch. 4 Experimenting with Common Objects</p> <p style="color: red; margin: 0;">Ch. 5 Recording Experiments</p> <p style="color: red; margin: 0;">Ch. 6 “Inventing” Interaction</p> <p style="color: red; margin: 0;">Ch. 7 “Inventing” Evidence of Interaction</p> <p style="color: red; margin: 0;">Ch. 8 “Inventing” the Systems Concept</p> <p style="color: red; margin: 0;">Ch. 9 Air and Breath</p> <p style="color: red; margin: 0;">Ch. 10 Keeping Track of a System</p> <p style="color: red; margin: 0;">Ch. 11 Interactions: Land and Water</p> <p style="color: red; margin: 0;">Ch. 12 Investigating Gears</p> <p style="color: red; margin: 0;">Ch. 13 Pulleys and Gears Interact</p> <p style="color: red; margin: 0;">Ch. 14 Comparing Gear/Pulley Systems</p> <p style="color: red; margin: 0;">Ch. 15 Making Solutions</p> <p style="color: red; margin: 0;">Ch. 16 Solutions Interact</p> <p style="color: red; margin: 0;">Ch. 17 The Water Cycle</p> <p style="color: red; margin: 0;">Ch. 18 Interaction at a Distance</p> <p style="color: red; margin: 0;">Ch. 19 Magnetic Interaction</p> <p style="color: red; margin: 0;">Ch. 20 Building Electric Circuits</p> <p style="color: red; margin: 0;">Ch. 21 Conductors</p> <p style="color: red; margin: 0;"><u><b>Life Cycles Curriculum</b></u></p> <p style="color: red; margin: 0;">Ch. 1 Review of Organisms</p> <p style="color: red; margin: 0;">Ch. 2 Living, Dead, or Nonliving</p> <p style="color: red; margin: 0;">Ch. 3 Plant or Animal?</p> <p style="color: red; margin: 0;">Ch. 4 Where Do Seeds Come From?</p> <p style="color: red; margin: 0;">Ch. 5 Planting Seeds</p> <p style="color: red; margin: 0;">Ch. 6 Development and Growth of Plants</p> <p style="color: red; margin: 0;">Ch. 7 Experiment with Plants</p> <p style="color: red; margin: 0;">Ch. 8 The Great Seed Hunt</p> <p style="color: red; margin: 0;">Ch. 9 Seeds or Eggs?</p> <p style="color: red; margin: 0;">Ch. 10 Young Crickets and Tadpoles</p> <p style="color: red; margin: 0;">Ch. 11 Development and Growth of Animals</p> <p style="color: red; margin: 0;">Ch. 12 Fruit Flies</p> <p style="color: red; margin: 0;">Ch. 13 Moths</p> <p style="color: red; margin: 0;">Ch. 14 Mealworms</p> <p style="color: red; margin: 0;">Ch. 15 Butterflies</p> <p style="color: red; margin: 0;">Ch. 16 Hunting for Life Cycle Stages</p>			
<b>2.1.2 Use tools, such as thermometers, magnifiers, rulers, or balances, to gain more information about objects.</b>				
<b>Support from Current</b>	<p style="color: red; margin: 0;"><u><b>Interaction and Systems Curriculum</b></u></p> <p style="color: red; margin: 0;">Ch. 9 Air and Breath</p>			

<b>Curriculum:</b>	Ch. 15 Making Solutions Ch. 16 Solutions Interact <u><b>Life Cycles Curriculum</b></u> Ch. 1 Review of Organisms Ch. 2 Living, Dead, or Nonliving Ch. 4 Where Do Seeds Come From? Ch. 9 Seeds or Eggs? Ch. 10 Young Crickets and Tadpoles Ch. 11 Development and Growth of Animals Ch. 12 Fruit Flies Ch. 13 Moths Ch. 14 Mealworms Ch. 15 Butterflies Ch. 16 Hunting for Life Cycle Stages
<b>2.1.3 Describe, both in writing and verbally, objects as accurately as possible and compare observations with those of other people.</b>	
<b>Support from Current Curriculum:</b>	<u><b>Interaction and Systems Curriculum</b></u> Ch. 1 Which Objects Float? Ch. 2 Grouping and Sorting Ch. 3 Material Hunt Ch. 4 Experimenting with Common Objects Ch. 5 Recording Experiments Ch. 7 “Inventing” Evidence of Interaction Ch. 9 Air and Breath Ch. 10 Keeping Track of a System Ch. 11 Interactions: Land and Water Ch. 12 Investigating Gears Ch. 13 Pulleys and Gears Interact Ch. 14 Comparing Gear/Pulley Systems Ch. 15 Making Solutions Ch. 16 Solutions Interact Ch. 17 The Water Cycle Ch. 18 Interaction at a Distance Ch. 19 Magnetic Interaction Ch. 20 Building Electric Circuits Ch. 21 Conductors <u><b>Life Cycles Curriculum</b></u> Ch. 1 Review of Organisms Ch. 2 Living, Dead, or Nonliving Ch. 4 Where Do Seeds Come From? Ch. 5 Planting Seeds Ch. 6 Development and Growth of Plants Ch. 9 Seeds or Eggs? Ch. 11 Development and Growth of Animals Ch. 13 Moths Ch. 14 Mealworms Ch. 15 Butterflies Ch. 16 Hunting for Life Cycle Stages
<b>2.1.4 Make new observations when there is disagreement among initial observations.</b>	
<b>Support from Current Curriculum:</b>	<u><b>Interaction and Systems Curriculum</b></u> Ch. 1 Which Objects Float? Ch. 2 Grouping and Sorting Ch. 3 Material Hunt Ch. 4 Experimenting with Common Objects Ch. 5 Recording Experiments Ch. 7 “Inventing” Evidence of Interaction Ch. 9 Air and Breath Ch. 10 Keeping Track of a System Ch. 11 Interactions: Land and Water

	<p>Ch. 12 Investigating Gears  Ch. 13 Pulleys and Gears Interact  Ch. 14 Comparing Gear/Pulley Systems  Ch. 15 Making Solutions  Ch. 16 Solutions Interact  Ch. 17 The Water Cycle  Ch. 18 Interaction at a Distance  Ch. 19 Magnetic Interaction  Ch. 20 Building Electric Circuits  Ch. 21 Conductors</p> <p><b><u>Life Cycles Curriculum</u></b>  Ch. 1 Review of Organisms  Ch. 2 Living, Dead, or Nonliving  Ch. 4 Where Do Seeds Come From?  Ch. 5 Planting Seeds  Ch. 6 Development and Growth of Plants  Ch. 7 Experiment with Plants  Ch. 9 Seeds or Eggs?  Ch. 11 Development and Growth of Animals  Ch. 13 Moths  Ch. 14 Mealworms  Ch. 15 Butterflies  Ch. 16 Hunting for Life Cycle Stages</p>
<p><b>2.1.5 Demonstrate the ability to work with a team but still reach and communicate one’s own conclusions about findings.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><b><u>Interaction and Systems Curriculum</u></b>  Ch. 1 Which Objects Float?  Ch. 2 Grouping and Sorting  Ch. 3 Material Hunt  Ch. 4 Experimenting with Common Objects  Ch. 5 Recording Experiments  Ch. 7 “Inventing” Evidence of Interaction  Ch. 12 Investigating Gears  Ch. 13 Pulleys and Gears Interact  Ch. 14 Comparing Gear/Pulley Systems  Ch. 15 Making Solutions  Ch. 16 Solutions Interact  Ch. 19 Magnetic Interaction  Ch. 20 Building Electric Circuits  Ch. 21 Conductors</p> <p><b><u>Life Cycles Curriculum</u></b>  Ch. 5 Planting Seeds  Ch. 7 Experiment with Plants  Ch. 13 Moths  Ch. 14 Mealworms</p>
<p><b>2.1.6 Use tools to investigate, observe, measure, design, and build things.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><b><u>Interaction and Systems Curriculum</u></b>  Ch. 4 Experimenting with Common Objects  Ch. 6 “Inventing” Interaction  Ch. 7 “Inventing” Evidence of Interaction  Ch. 8 “Inventing” the Systems Concept  Ch. 9 Air and Breath  Ch. 10 Keeping Track of a System  Ch. 12 Investigating Gears  Ch. 13 Pulleys and Gears Interact  Ch. 14 Comparing Gear/Pulley Systems  Ch. 15 Making Solutions  Ch. 16 Solutions Interact  Ch. 18 Interaction at a Distance</p>

	<p>Ch. 19 Magnetic Interaction  Ch. 20 Building Electric Circuits  Ch. 21 Conductors  <u><b>Life Cycles Curriculum</b></u>  Ch. 2 Living, Dead, or Nonliving  Ch. 4 Where Do Seeds Come From?  Ch. 5 Planting Seeds  Ch. 6 Development and Growth of Plants  Ch. 7 Experiments with Plants  Ch. 8 The Great Seed Hunt  Ch. 9 Seeds or Eggs?  Ch. 10 Young Crickets and Tadpoles  Ch. 11 Development and Growth of Animals  Ch. 12 Fruit Flies  Ch. 13 Moths  Ch. 14 Mealworms  Ch. 15 Butterflies  Ch. 16 Hunting for Life Cycle Stages</p>				
<b>2.1.7 Recognize and describe ways that some materials, such as recycled paper, cans, and plastic jugs, can be used over again.</b>					
Support from Current Curriculum:	<p><u><b>Interaction and Systems Curriculum</b></u>  Ch. 3 Material Hunt (pg. 26 Science, Technology and Society)  <u><b>Life Cycles Curriculum</b></u>  Ch. 3 Plant or Animal? (pg. 38 Science, Technology and Society)</p>				
<b>Standard 2</b>			<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>Scientific Thinking</b>					
<b>2.2.1 Give estimates of numerical answers to problems before doing them formally.</b>					
Support from Current Curriculum:	<p><u><b>Life Cycles Curriculum</b></u>  Ch. 4 Where Do Seeds Come From? (pg 57 Science and Math)</p>				
<b>2.2.2 Make quantitative estimates of familiar lengths, weights, and time intervals and check them by measurements.</b>					
Support from Current Curriculum:	<p><u><b>Interaction and Systems Curriculum</b></u>  Ch. 6 "Inventing" Interaction (pg. 48 Science and Math)</p>				
<b>2.2.3 Estimate and measure capacity using cups and pints.</b>					
Support from Current Curriculum:					
<b>2.2.4 Assemble, describe, take apart, and/or reassemble constructions using such things as interlocking blocks and erector sets. Sometimes pictures or words may be used as a reference.</b>					
Support from Current Curriculum:	<p><u><b>Interaction and Systems Curriculum</b></u>  Ch. 4 Experimenting with Common Objects  Ch. 12 Investigating Gears  Ch. 13 Pulleys and Gears Interact  Ch. 14 Comparing Gear/Pulley Systems  Ch. 20 Building Electric Circuits  Ch. 21 Conductors</p>				
<b>2.2.5 Draw pictures and write brief descriptions that correctly portray key features of an object.</b>					
Support from Current Curriculum:	<p><u><b>Interaction and Systems Curriculum</b></u>  Ch. 9 Air and Breath  Ch. 12 Investigating Gears  Ch. 13 Pulleys and Gears Interact  Ch. 15 Making Solutions</p>				

	<p>Ch. 16 Solutions Interact  Ch. 19 Magnetic Interaction  Ch. 20 Building Electric Circuits  <u><b>Life Cycles Curriculum</b></u>  Ch. 1 Review of Organisms  Ch. 2 Living, Dead, or Nonliving  Ch. 4 Where Do Seeds Come From?  Ch. 5 Planting Seeds  Ch. 6 Development and Growth of Plants  Ch. 7 Experiments with Plants  Ch. 9 Seeds or Eggs?  Ch. 10 Young Crickets and Tadpoles  Ch. 13 Moths  Ch. 14 Mealworms  Ch. 16 Hunting for Life Cycle Stages</p>			
<p><b>Standard 3</b>  <b>The Physical Setting</b></p>	<p>Excellent</p>	<p>Adequate</p>	<p>Needs Development</p>	
<p><b>2.3.1 Investigate by observing and then describe that some events in nature have a repeating pattern, such as seasons, day and night, and migrations.</b></p>				
<p>Support from Current Curriculum:</p>	<p><u><b>Life Cycles Curriculum</b></u>  Ch. 13 Moths  Ch. 15 Butterflies  Ch. 16 Hunting for Life Cycle Stages</p>			
<p><b>2.3.2 Investigate, compare, and describe weather changes from day to day but recognize, describe, and chart that the temperature and amounts of rain or snow tend to be high, medium, or low in the same months every year.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>2.3.3 Investigate by observing and then describe chunks of rocks and their many sizes and shapes, from boulders to grains of sand and even smaller.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>2.3.4 Investigate by observing and then describe how animals and plants sometimes cause changes in their surroundings.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>2.3.5 Investigate that things can be done to materials, such as freezing, mixing, cutting, heating, wetting, etc., to change some of their properties and observe that not all materials respond in the same way.</b></p>				
<p>Support from Current Curriculum:</p>	<p><u><b>Interaction and Systems Curriculum</b></u>  Ch. 7 "Inventing" Evidence of Interaction  Ch. 9 Air and Breath  Ch. 15 Making Solutions  Ch. 16 Solutions Interact</p>			
<p><b>2.3.6 Discuss how people use electricity or burn fuels, such as wood, oil, coal, or natural gas, to cook their food and warm their houses.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>2.3.7 Investigate and observe that the way to change how something is moving is to give it a push or a pull.</b></p>				

Support from Current Curriculum:	<u><a href="#">Interaction and Systems Curriculum</a></u> Ch. 6 "Inventing" Interaction Ch. 18 Interaction at a Distance Ch. 19 Magnetic Interaction		
<b>2.3.8 Demonstrate and observe that magnets can be used to make some things move without being touched.</b>			
Support from Current Curriculum:	<u><a href="#">Interaction and Systems Curriculum</a></u> Ch. 6 "Inventing" Interaction Ch. 18 Interaction at a Distance Ch. 19 Magnetic Interaction		
<b>Standard 4</b> <b>The Living Environment</b>			Excellent Adequate Needs Development
<b>2.4.1 Observe and identify different external features of plants and animals and describe how these features help them live in different environments.</b>			
Support from Current Curriculum:			
<b>2.4.2 Observe that and describe how animals may use plants, or even other animals, for shelter and nesting.</b>			
Support from Current Curriculum:			
<b>2.4.3 Observe and explain that plants and animals both need to take in water, animals need to take in food, and plants need light.</b>			
Support from Current Curriculum:			
<b>2.4.4 Recognize and explain that living things are found almost everywhere in the world and that there are somewhat different kinds in different places.</b>			
Support from Current Curriculum:	<u><a href="#">Life Cycles Curriculum</a></u> Ch. 1 Review of Organisms Ch. 8 The Great Seed Hunt		
<b>2.4.5 Recognize and explain that materials in nature, such as grass, twigs, sticks, and leaves, can be recycled and used again, sometimes in different forms, such as in birds' nests.</b>			
Support from Current Curriculum:			
<b>2.4.6 Observe and describe the different external features of people, such as their size, shape, and color of hair, skin, and eyes.</b>			
Support from Current Curriculum:			
<b>2.4.7 Recognize and discuss that people are more like one another than they are like other animals.</b>			
Support from Current Curriculum:			
<b>2.4.8 Give examples of different roles people have in families and communities.</b>			
Support from Current Curriculum:			

Standard 5 The Mathematical World		Excellent	Adequate	Needs Development
<b>2.5.1 Recognize and explain that, in measuring, there is a need to use numbers between whole numbers, such as 2 ½ centimeters.</b>				
Support from Current Curriculum:	<u><b>Interaction and Systems Curriculum</b></u> Ch. 14 Comparing Gear/Pulley Systems Ch. 11 Development and Growth of Animals <u><b>Life Cycles Curriculum</b></u> Ch. 6 Development and Growth of Plants (pg. 80 Science and Math)			
<b>2.5.2 Recognize and explain that it is often useful to estimate quantities.</b>				
Support from Current Curriculum:	<u><b>Life Cycles Curriculum</b></u> Ch. 4 Where Do Seeds Come From? (pg. 57 Science and Math)			
<b>2.5.3 Observe that and describe how changing one thing can cause changes in something else, such as exercise and its effect on heart rate.</b>				
Support from Current Curriculum:	<u><b>Interaction and Systems Curriculum</b></u> Ch. 10 Keeping Track of a System (pg. 96 Science and Math)			
<b>2.5.4 Begin to recognize and explain that people are more likely to believe ideas if good reasons are given for them.</b>				
Support from Current Curriculum:				
<b>2.5.5 Explain that some events can be predicted with certainty, such as sunrise and sunset, and some cannot, such as storms. Understand that people aren't always sure what will happen since they do not know everything that might have an effect.</b>				
Support from Current Curriculum:				
<b>2.5.6 Explain that sometimes a person can find out a lot (but not everything) about a group of things, such as insects, plants, or rocks, by studying just a few of them.</b>				
Support from Current Curriculum:	<u><b>Life Cycles Curriculum</b></u> Ch. 4 Where Do Seeds Come From? Ch. 5 Planting Seeds Ch. 6 Development and Growth of Plants Ch. 7 Experiments with Plants Ch. 8 The Great Seed Hunt			
Standard 6 Common Themes		Excellent	Adequate	Needs Development
<b>2.6.1 Investigate that most objects are made of parts.</b>				
Support from Current Curriculum:	<u><b>Interaction and Systems Curriculum</b></u> Ch. 8 "Inventing" the Systems Concept Ch. 10 Keeping Track of a System Ch. 12 Investigating Gears Ch. 13 Pulleys and Gears Interact Ch. 14 Comparing Gear/Pulley Systems Ch. 15 Making Solutions Ch. 16 Solutions Interact Ch. 18 Interaction at a Distance Ch. 19 Magnetic Interaction Ch. 20 Building Electric Circuits			

	Ch. 21 Conductors
<b>2.6.2 Observe and explain that models may not be the same size, may be missing some details, or may not be able to do all of the same things as the real things.</b>	
Support from Current Curriculum:	<u>Interaction and Systems Curriculum</u> Ch. 14 Comparing Gear/Pulley Systems (pg. 135 Science, Technology and Society)
<b>2.6.3 Describe that things can change in different ways, such as in size, weight, color, age, and movement. Investigate that some small changes can be detected by taking measurements.</b>	
Support from Current Curriculum:	<u>Interaction and Systems Curriculum</u> Ch. 12 Investigating Gears Ch. 13 Pulleys and Gears Interact Ch. 14 Comparing Gear/Pulley Systems <u>Life Cycles Curriculum</u> Ch. 11 Development and Growth of Animals Ch. 13 Moths

# FOSS Correlation with Indiana State Educational Science Standards

## Grade 3 – *Subsystems and Variables and Populations Curriculum*

Standard 1 <b>The Nature of Science and Technology</b>	Excellent	Adequate	Needs Development
<b>3.1.1 Recognize and explain that when a scientific investigation is repeated, a similar result is expected.</b>			
<b>Support from Current Curriculum:</b>	<span style="color: red;"><u><b>Subsystems and Variables Curriculum</b></u></span> Ch. 5 Electric Circuit Puzzles Ch. 11 Colored Solutions Ch. 15 “Inventing” Histograms Ch. 17 “Inventing” Variables Ch. 18 Whirly Bird Variables Ch. 19 Controlling Variables Ch. 21 Investigating Variables in Mineral Samples <span style="color: red;"><u><b>Populations</b></u></span> Ch. 4 Daphnia Ch. 9 Biotic Potential of Animals Ch. 10 Biotic Potential of Plants		
<b>3.1.2 Participate in different types of guided scientific investigations, such as observing objects and events and collecting specimens for analysis.</b>			
<b>Support from Current Curriculum:</b>	<span style="color: red;"><u><b>Subsystems and Variables Curriculum</b></u></span> Ch. 1 Investigating Systems and Interactions Ch. 2 Reviewing Interaction and Systems Ch. 3 Subsystems and Energy Ch. 4 “Inventing” the Subsystem Concept Ch. 5 Electric Circuit Puzzles Ch. 6 Producing Sound Ch. 7 Colored Liquids Ch. 8 “Inventing” the Solutions Concept Ch. 9 Salt Solution Ch. 10 Separating Mixtures Ch. 11 Colored Solutions Ch. 12 Properties of Butyl Stearate and Water Ch. 13 Liquid and Solid Butyl Stearate Ch. 14 Temperature of Water and Ice Systems Ch. 15 “Inventing” Histograms Ch. 16 Experimenting with the Whirly Bird Ch. 17 “Inventing” Variables Ch. 18 Whirly Bird Variables Ch. 19 Controlling Variables Ch. 20 Temperature Differences Outdoors Ch. 21 Investigating Variables in Mineral Samples Ch. 22 Atmospheric Variables <span style="color: red;"><u><b>Populations Curriculum</b></u></span> Ch. 1 Review Ch. 2 Planting Peas and Beans Ch. 3 Organisms around the School		

	<p>Ch. 4 Daphnia  Ch. 5 "Inventing" the Population Concept  Ch. 6 Dispersal  Ch. 7 What Caused the Population Decrease?  Ch. 8 Plant Dispersal  Ch. 9 Biotic Potential of Animals  Ch. 10 Biotic Potential of Plants  Ch. 11 Building Terrariums  Ch. 12 Cricket Populations in the Terrariums  Ch. 13 Adding an Animal-Eater  Ch. 14 Reviewing the Food Chain Concept  Ch. 15 "Inventing" the Food Web Concept  Ch. 16 Populations That Live with Humans  Ch. 17 Building Aquariums  Ch. 18 Damselflies and Daphnia  Ch. 19 Aquatic Food Relationships</p>
<p><b>3.1.3 Keep and report records of investigations and observations using tools, such as journals, charts, graphs, and computers.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><b><u>Subsystems and Variables Curriculum</u></b>  Ch. 1 Investigating Systems and Interactions  Ch. 2 Reviewing Interaction and Systems  Ch. 3 Subsystems and Energy  Ch. 4 "Inventing" the Subsystem Concept  Ch. 5 Electric Circuit Puzzles  Ch. 6 Producing Sound  Ch. 7 Colored Liquids  Ch. 8 "Inventing" the Solutions Concept  Ch. 9 Salt Solution  Ch. 10 Separating Mixtures  Ch. 11 Colored Solutions  Ch. 12 Properties of Butyl Stearate and Water  Ch. 13 Liquid and Solid Butyl Stearate  Ch. 14 Temperature of Water and Ice Systems  Ch. 15 "Inventing" Histograms  Ch. 16 Experimenting with the Whirly Bird  Ch. 17 "Inventing" Variables  Ch. 18 Whirly Bird Variables  Ch. 19 Controlling Variables  Ch. 20 Temperature Differences Outdoors  Ch. 21 Investigating Variables in Mineral Samples  Ch. 22 Atmospheric Variables</p> <p><b><u>Populations Curriculum</u></b>  Ch. 1 Review  Ch. 2 Planting Peas and Beans  Ch. 3 Organisms around the School  Ch. 4 Daphnia  Ch. 5 "Inventing" the Population Concept  Ch. 6 Dispersal  Ch. 7 What Caused the Population Decrease?  Ch. 8 Plant Dispersal  Ch. 9 Biotic Potential of Animals  Ch. 10 Biotic Potential of Plants  Ch. 11 Building Terrariums  Ch. 12 Cricket Populations in the Terrariums  Ch. 13 Adding an Animal-Eater  Ch. 14 Reviewing the Food Chain Concept  Ch. 15 "Inventing" the Food Web Concept  Ch. 16 Populations That Live with Humans  Ch. 17 Building Aquariums</p>

	<p>Ch. 18 Damselflies and Daphnia  Ch. 19 Aquatic Food Relationships</p>
<p><b>3.1.4 Discuss the results of investigations and consider the explanations of others.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><u><b>Subsystems and Variables Curriculum</b></u>  Ch. 1 Investigating Systems and Interactions  Ch. 2 Reviewing Interaction and Systems  Ch. 3 Subsystems and Energy  Ch. 4 “Inventing” the Subsystem Concept  Ch. 5 Electric Circuit Puzzles  Ch. 6 Producing Sound  Ch. 7 Colored Liquids  Ch. 8 “Inventing” the Solutions Concept  Ch. 9 Salt Solution  Ch. 10 Separating Mixtures  Ch. 11 Colored Solutions  Ch. 12 Properties of Butyl Stearate and Water  Ch. 13 Liquid and Solid Butyl Stearate  Ch. 14 Temperature of Water and Ice Systems  Ch. 15 “Inventing” Histograms  Ch. 16 Experimenting with the Whirly Bird  Ch. 17 “Inventing” Variables  Ch. 18 Whirly Bird Variables  Ch. 19 Controlling Variables  Ch. 20 Temperature Differences Outdoors  Ch. 21 Investigating Variables in Mineral Samples  Ch. 22 Atmospheric Variables  <u><b>Populations Curriculum</b></u>  Ch. 1 Review  Ch. 2 Planting Peas and Beans  Ch. 3 Organisms around the School  Ch. 4 Daphnia  Ch. 5 “Inventing” the Population Concept  Ch. 6 Dispersal  Ch. 7 What Caused the Population Decrease?  Ch. 8 Plant Dispersal  Ch. 9 Biotic Potential of Animals  Ch. 10 Biotic Potential of Plants  Ch. 11 Building Terrariums  Ch. 12 Cricket Populations in the Terrariums  Ch. 13 Adding an Animal-Eater  Ch. 14 Reviewing the Food Chain Concept  Ch. 15 “Inventing” the Food Web Concept  Ch. 16 Populations That Live with Humans  Ch. 17 Building Aquariums  Ch. 18 Damselflies and Daphnia  Ch. 19 Aquatic Food Relationships</p>
<p><b>3.1.5 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><u><b>Subsystems and Variables Curriculum</b></u>  Ch. 1 Investigating Systems and Interactions  Ch. 5 Electric Circuit Puzzles  Ch. 7 Colored Liquids  Ch. 9 Salt Solution  Ch. 10 Separating Mixtures  Ch. 11 Colored Solutions  Ch. 12 Properties of Butyl Stearate and Water  Ch. 13 Liquid and Solid Butyl Stearate  Ch. 14 Temperature of Water and Ice Systems  Ch. 16 Experimenting with the Whirly Bird</p>

	<p>Ch. 17 “Inventing” Variables  Ch. 18 Whirly Bird Variables  Ch. 19 Controlling Variables  Ch. 21 Investigating Variables in Mineral Samples  <u><b>Populations Curriculum</b></u>  Ch. 1 Review  Ch. 2 Planting Peas and Beans  Ch. 4 Daphnia  Ch. 5 “Inventing” the Population Concept  Ch. 6 Dispersal  Ch. 8 Plant Dispersal  Ch. 11 Building Terrariums  Ch. 12 Cricket Populations in the Terrariums  Ch. 13 Adding an Animal-Eater  Ch. 14 Reviewing the Food Chain Concept  Ch. 17 Building Aquariums  Ch. 18 Damselflies and Daphnia</p>				
<b>3.1.6 Give examples of how tools, such as automobiles, computers, and electric motors, have affected the way we live.</b>					
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 4 “Inventing” the Subsystem Concept				
<b>3.1.7 Recognize that and explain how an invention can be used in different ways, such as a radio being used to get information and for entertainment.</b>					
Support from Current Curriculum:					
<b>3.1.8 Describe how discarded products contribute to the problem of waste disposal and that recycling can help solve this problem.</b>					
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 12 Properties of Butyl Stearate and Water (pg. 146 Science Challenge) Ch. 13 Liquid and Solid Butyl Stearate (pg. 154 Science, Technology and Society)				
<b>Standard 2</b>			<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>Scientific Thinking</b>					
<b>3.2.1 Add and subtract whole numbers mentally, on paper, and with a calculator.</b>					
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 15 “Inventing” Histograms Ch. 20 Temperature Differences Outdoors <u><b>Populations Curriculum</b></u> Ch. 5 “Inventing” the Population Concept				
<b>3.2.2 Measure and mix dry and liquid materials in prescribed amounts, following reasonable safety precautions.</b>					
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 7 Colored Liquids Ch. 9 Salt Solution				
<b>3.2.3 Keep a notebook that describes observations and is understandable weeks or months later.</b>					
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 1 Investigating Systems and Interactions Ch. 2 Reviewing Interaction and Systems Ch. 3 Subsystems and Energy Ch. 4 “Inventing” the Subsystem Concept Ch. 5 Electric Circuit Puzzles Ch. 6 Producing Sound Ch. 7 Colored Liquids				

	<p>Ch. 8 “Inventing” the Solutions Concept  Ch. 9 Salt Solution  Ch. 10 Separating Mixtures  Ch. 11 Colored Solutions  Ch. 12 Properties of Butyl Stearate and Water  Ch. 14 Temperature of Water and Ice Systems  Ch. 15 “Inventing” Histograms  Ch. 16 Experimenting with the Whirly Bird  Ch. 17 “Inventing” Variables  Ch. 18 Whirly Bird Variables  Ch. 19 Controlling Variables  Ch. 20 Temperature Differences Outdoors  Ch. 21 Investigating Variables in Mineral Samples  Ch. 22 Atmospheric Variables</p> <p><b><u>Populations Curriculum</u></b>  Ch. 1 Review  Ch. 2 Planting Peas and Beans  Ch. 3 Organisms around the School  Ch. 4 Daphnia  Ch. 6 Dispersal  Ch. 7 What Caused the Population Decrease?  Ch. 8 Plant Dispersal  Ch. 9 Biotic Potential of Animals  Ch. 10 Biotic Potential of Plants  Ch. 13 Adding an Animal-Eater  Ch. 16 Populations That Live with Humans  Ch. 17 Building Aquariums  Ch. 19 Aquatic Food Relationships</p>
<p><b>3.2.4 Appropriately use simple tools, such as clamps, rulers, scissors, hand lenses, and other technology, such as calculators and computers, to help solve problems.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><b><u>Subsystems and Variables Curriculum</u></b>  Ch. 7 Colored Liquids  Ch. 9 Salt Solution  Ch. 14 Temperature of Water and Ice Systems  Ch. 20 Temperature Differences Outdoors</p>
<p><b>3.2.5 Construct something used for performing a task out of paper, cardboard, wood, plastic, metal, or existing objects.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><b><u>Subsystems and Variables Curriculum</u></b>  Ch. 1 Investigating Systems and Interactions  Ch. 16 Experimenting with the Whirly Bird  Ch. 17 “Inventing” Variables  Ch. 18 Whirly Bird Variables  Ch. 19 Controlling Variables</p>
<p><b>3.2.6 Make sketches and write descriptions to aid in explaining procedures or ideas.</b></p>	
<p><b>Support from Current Curriculum:</b></p>	<p><b><u>Subsystems and Variables Curriculum</u></b>  Ch. 1 Investigating Systems and Interactions  Ch. 2 Reviewing Interaction and Systems  Ch. 3 Subsystems and Energy  Ch. 4 “Inventing” the Subsystem Concept  Ch. 5 Electric Circuit Puzzles  Ch. 6 Producing Sound  Ch. 7 Colored Liquids  Ch. 8 “Inventing” the Solutions Concept  Ch. 9 Salt Solution  Ch. 10 Separating Mixtures  Ch. 11 Colored Solutions  Ch. 12 Properties of Butyl Stearate and Water  Ch. 14 Temperature of Water and Ice Systems  Ch. 15 “Inventing” Histograms</p>

	<p>Ch. 16 Experimenting with the Whirly Bird  Ch. 17 "Inventing" Variables  Ch. 18 Whirly Bird Variables  Ch. 19 Controlling Variables  Ch. 20 Temperature Differences Outdoors  Ch. 21 Investigating Variables in Mineral Samples  Ch. 22 Atmospheric Variables  <u>Populations Curriculum</u>  Ch. 1 Review  Ch. 2 Planting Peas and Beans  Ch. 3 Organisms around the School  Ch. 4 Daphnia  Ch. 6 Dispersal  Ch. 7 What Caused the Population Decrease?  Ch. 8 Plant Dispersal  Ch. 9 Biotic Potential of Animals  Ch. 10 Biotic Potential of Plants  Ch. 13 Adding an Animal-Eater  Ch. 16 Populations That Live with Humans  Ch. 17 Building Aquariums  Ch. 19 Aquatic Food Relationships</p>			
<p><b>3.2.7 Ask "How do you know?" in appropriate situations and attempt reasonable answers when others ask the same question.</b></p>				
<p>Support from Current Curriculum:</p>	<p><u>Subsystems and Variables Curriculum</u>  Ch. 2 Reviewing Interaction and System</p>			
<p><b>Standard 3</b>  <b>The Physical Setting</b></p>		<p>Excellent</p>	<p>Adequate</p>	<p>Needs Development</p>
<p><b>3.3.1 Observe and describe the apparent motion of the sun and moon over a time span of one day.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>3.3.2 Observe and describe that there are more stars in the sky than anyone can easily count, but they are not scattered evenly.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>3.3.3 Observe and describe that the sun can be seen only in the daytime.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>3.3.4 Observe and describe that the moon looks a little different every day, but looks the same again about every four weeks.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>3.3.5 Give examples of how change, such as weather patterns, is a continual process occurring on Earth.</b></p>				
<p>Support from Current Curriculum:</p>				
<p><b>3.3.6 Describe ways human beings protect themselves from adverse weather conditions.</b></p>				

Support from Current Curriculum:				
<b>3.3.7 Identify and explain some effects human activities have on weather.</b>				
Support from Current Curriculum:	<u>Subsystems and Variables Curriculum</u> Ch. 19 Controlling Variables (pg. 186 Science, Technology and Society)			
<b>3.3.8 Investigate and describe how moving air and water can be used to run machines, like windmills and waterwheels.</b>				
Support from Current Curriculum:				
<b>3.3.9 Demonstrate that things that make sound do so by vibrating, such as vocal cords and musical instruments.</b>				
Support from Current Curriculum:	<u>Subsystems and Variables Curriculum</u> Ch. 6 Producing Sound			
<b>Standard 4</b>				
<b>The Living Environment</b>		Excellent	Adequate	Needs Development
<b>3.4.1 Demonstrate that a great variety of living things can be sorted into groups in many ways using various features, such as how they look, where they live, and how they act, to decide which things belong to which group.</b>				
Support from Current Curriculum:	<u>Populations Curriculum</u> Ch. 1 Review Ch. 3 Organisms around the School			
<b>3.4.2 Explain that features used for grouping depend on the purpose of the grouping.</b>				
Support from Current Curriculum:	<u>Populations Curriculum</u> Ch. 1 Review Ch. 3 Organisms around the School			
<b>3.4.3 Observe that and describe how offspring are very much, but not exactly, like their parents and like one another.</b>				
Support from Current Curriculum:	<u>Populations Curriculum</u> Ch. 4 Daphnia Ch. 5 "Inventing" the Population Concept			
<b>3.4.4 Describe that almost all kinds of animals' food can be traced back to plants.</b>				
Support from Current Curriculum:	<u>Populations Curriculum</u> Ch. 4 Daphnia Ch. 14 Reviewing the Food Chain Concept Ch. 15 "Inventing" the Food Web Concept Ch. 19 Aquatic Food Relationships			
<b>3.4.5 Give examples of some kinds of organisms that have completely disappeared and explain how these organisms were similar to some organisms living today.</b>				
Support from Current Curriculum:	<u>Populations Curriculum</u> Ch. 16 Populations That Live with Humans			
<b>3.4.6 Explain that people need water, food, air, waste removal, and a particular range of temperatures, just as other animals do.</b>				
Support from Current Curriculum:	<u>Populations Curriculum</u> Ch. 4 Daphnia Ch. 5 "Inventing" the Population Concept Ch. 9 Biotic Potential of Animals			
<b>3.4.7 Explain that eating a variety of healthful foods and getting enough exercise and rest help people to stay healthy.</b>				

Support from Current Curriculum:				
<b>3.4.8 Explain that some things people take into their bodies from the environment can hurt them and give examples of such things.</b>				
Support from Current Curriculum:				
<b>3.4.9 Explain that some diseases are caused by germs and some are not. Note that diseases caused by germs may be spread to other people. Also understand that washing hands with soap and water reduces the number of germs that can get into the body or that can be passed on to other people.</b>				
Support from Current Curriculum:				
<b>Standard 5</b>				
<b>The Mathematical World</b>		Excellent	Adequate	Needs Development
<b>3.5.1 Select and use appropriate measuring units, such as centimeters (cm) and meters (m), grams (g) and kilograms (kg), and degrees Celsius (°C).</b>				
Support from Current Curriculum:	<u>Subsystems and Variables Curriculum</u> Ch. 10 Separating Mixtures (pg. 119 Science and Math) Ch. 14 Temperature of Water and Ice Systems			
<b>3.5.2 Observe that and describe how some measurements are likely to be slightly different, even if what is being measured stays the same.</b>				
Support from Current Curriculum:	<u>Subsystems and Variables Curriculum</u> Ch. 14 Temperature of Water and Ice Systems			
<b>3.5.3 Construct tables and graphs to show how values of one quantity are related to values of another.</b>				
Support from Current Curriculum:	<u>Subsystems and Variables Curriculum</u> Ch. 7 Colored Liquids Ch. 14 Temperature of Water and Ice Systems Ch. 15 "Inventing" Histograms Ch. 17 "Inventing" Variables Ch. 18 Whirly Bird Variables Ch. 19 Controlling Variables <u>Populations Curriculum</u> Ch. 4 Daphnia Ch. 5 "Inventing" the Population Concept (pg. 62 Science and Math) Ch. 10 Biotic Potential of Plants (pg. 119 Science and Math)			
<b>3.5.4 Illustrate that if 0 and 1 are located on a line, any other number can be depicted as a position on the line.</b>				
Support from Current Curriculum:	<u>Subsystems and Variables Curriculum</u> Ch. 14 Temperature of Water and Ice Systems			
<b>3.5.5 Explain that one way to make sense of something is to think of how it relates to something more familiar.</b>				
Support from Current Curriculum:	<u>Subsystems and Variables Curriculum</u> Ch. 12 Cricket Populations in the Terrariums			
<b>Standard 6</b>				
<b>Common Themes</b>		Excellent	Adequate	Needs Development

<b>3.6.1 Investigate how and describe that when parts are put together, they can do things that they could not do by themselves.</b>	
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 1 Investigating Systems and Interactions Ch. 16 Experimenting with the Whirly Bird
<b>3.6.2 Investigate how and describe that something may not work if some of its parts are missing.</b>	
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 1 Investigating Systems and Interactions Ch. 16 Experimenting with the Whirly Bird
<b>3.6.3 Explain how a model of something is different from the real thing but can be used to learn something about the real thing.</b>	
Support from Current Curriculum:	<u><b>Populations Curriculum</b></u> Ch. 11 Building Terrariums Ch. 17 Building Aquariums
<b>3.6.4 Take, record, and display counts and simple measurements of things over time, such as plant or student growth.</b>	
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 14 Reviewing the Food Chain Concept Ch. 18 Damsselflies and Daphnia (pg. 201 Science and Math) Ch. 18 Damsselflies and Daphnia (pg. 201 Science Extensions) <u><b>Populations</b></u> Ch. 4 Daphnia
<b>3.6.5 Observe that and describe how some changes are very slow and some are very fast and that some of these changes may be hard to see and/or record.</b>	
Support from Current Curriculum:	<u><b>Subsystems and Variables Curriculum</b></u> Ch. 14 Reviewing the Food Chain Concept

# FOSS Correlation with Indiana State Educational Science Standards

## Grade Four – *Relative Motion and Position and Environments Curriculum*

Standard 1 <b>The Nature of Science and Technology</b>		Excellent	Adequate	Needs Development
<b>4.1.1 Observe and describe that scientific investigations generally work the same way in different places.</b>				
<b>Support from Current Curriculum:</b>	<u><b>Relative Motion and Position Curriculum</b></u> Ch. 20 Eclipses of the Sun and the Moon (pg. 246 Science Extension)			
<b>4.1.2 Recognize and describe that results of scientific investigations are seldom exactly the same. If differences occur, such as a large variation in the measurement of plant growth, propose reasons for why these differences exist, using recorded information about investigations.</b>				
<b>Support from Current Curriculum:</b>	<u><b>Environments Curriculum</b></u> Ch. 2 The Growth Race Ch. 5 Recording Changes in the Environment Ch. 6 Observing Changes in Organisms Ch. 7 Soil Moisture Ch. 8 Light and Plant Growth Ch. 9 Temperature and Plant Development Ch. 10 Plant Responses to Water Ch. 11 Plant Responses to Chemicals Ch. 13 Temperature and Isopods Ch. 14 The Best Environment for Isopods Ch. 15 The Environment of Hermit Crabs Ch. 16 The Environment of Beetles Ch. 17 Building a "Perfect" Habitat			
<b>4.1.3 Explain that clear communication is an essential part of doing science since it enables scientists to inform others about their work, to expose their ideas to evaluation by other scientists, and to allow scientists to stay informed about scientific discoveries around the world.</b>				
<b>Support from Current Curriculum:</b>	<u><b>Relative Motion and Position Curriculum</b></u> Ch. 3 "Inventing" Reference Objects Ch. 5 Relative Position Puzzles Ch. 13 Describing Directions Ch. 14 "Inventing" Polar Coordinates Ch. 17 The Earth, the Sun, and Their Motion <u><b>Environments Curriculum</b></u> Ch. 2 The Growth Race Ch. 5 Recording Changes in the Environment Ch. 6 Observing Changes in Organisms Ch. 7 Soil Moisture Ch. 8 Light and Plant Growth Ch. 9 Temperature and Plant Development Ch. 10 Plant Responses to Water Ch. 11 Plant Responses to Chemicals Ch. 13 Temperature and Isopods Ch. 14 The Best Environment for Isopods			

	<p>Ch. 15 The Environment of Hermit Crabs  Ch. 16 The Environment of Beetles  Ch. 17 Building a “Perfect” Habitat  Ch. 18 The Human Environment</p>				
<b>4.1.4 Describe how people all over the world have taken part in scientific investigation for many centuries.</b>					
Support from Current Curriculum:	<p><u>Relative Motion and Position Curriculum</u>  Ch. 17 The Earth, the Sun, and Their Motion (pg. 207 Science, Technology and Society)  Ch. 17 The Earth, the Sun, and Their Motion (pg. 207 Science and Language Arts)  Ch. 20 Eclipses of the Sun and the Moon  Ch. 20 Eclipses of the Sun and the Moon (pg. 246 Science Extension)</p>				
<b>4.1.5 Demonstrate how measuring instruments, such as microscopes, telescopes, and cameras, can be used to gather accurate information for making scientific comparisons of objects and events. Note that measuring instruments, such as rulers, can also be used for designing and constructing things that will work properly.</b>					
Support from Current Curriculum:	<p><u>Relative Motion and Position Curriculum</u>  Ch. 15 Games and Maps  Ch. 16 Mapping the Playground  <u>Environments Curriculum</u>  Ch. 5 Recording Changes in the Environment  Ch. 6 Observing Changes in Organisms  Ch. 7 Soil Moisture  Ch. 8 Light and Plant Growth  Ch. 9 Temperature and Plant Development  Ch. 10 Plant Responses to Water  Ch. 11 Plant Responses to Chemicals</p>				
<b>4.1.6 Explain that even a good design may fail even though steps are taken ahead of time to reduce the likelihood of failure.</b>					
Support from Current Curriculum:					
<b>4.1.7 Discuss and give examples of how technology, such as computers and medicines, has improved the lives of many people, although the benefits are not equally available to all.</b>					
Support from Current Curriculum:	<p><u>Relative Motion and Position Curriculum</u>  Ch. 2 Variables of Paper Airplanes (pg. 28 Science, Technology and Society)  Ch. 9 Reporting Relative Motion  Ch. 9 Reporting Relative Motion (pg. 105 Science, Technology and Society)  Ch. 10 Making Flip Books  <u>Environments Curriculum</u>  Ch. 18 The Human Environment</p>				
<b>4.1.8 Recognize and explain that any invention may lead to other inventions.</b>					
Support from Current Curriculum:	<p><u>Relative Motion and Position Curriculum</u>  Ch. 7 Using Observer RK (pg. 78 Science, Technology and Society)  Ch. 9 Reporting Relative Motion  Ch. 10 Making Flip Books</p>				
<b>4.1.9 Explain how some products and materials are easier to recycle than others.</b>					
Support from Current Curriculum:					
<b>Standard 2 Scientific Thinking</b>			<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>4.2.1 Judge whether measurements and computations of quantities, such as length, area, volume, weight, or time, are reasonable.</b>					
Support from	<u>Environments Curriculum</u>				

<b>Current Curriculum:</b>	<p>Ch. 2 The Growth Race  Ch. 5 Recording Changes in the Environment  Ch. 6 Observing Changes in Organisms  Ch. 7 Soil Moisture  Ch. 8 Light and Plant Growth  Ch. 9 Temperature and Plant Development  Ch. 10 Plant Responses to Water  Ch. 11 Plant Responses to Chemicals</p>
<b>4.2.2 State the purpose, orally or in writing, of each step in a computation.</b>	
<b>Support from Current Curriculum:</b>	<p><u><b>Environments Curriculum</b></u>  Ch. 7 Soil Moisture</p>
<b>4.2.3 Make simple and safe electrical connections with various plugs, sockets, and terminals.</b>	
<b>Support from Current Curriculum:</b>	
<b>4.2.4 Use numerical data to describe and compare objects and events.</b>	
<b>Support from Current Curriculum:</b>	<p><u><b>Environments Curriculum</b></u>  Ch. 2 The Growth Race  Ch. 5 Recording Changes in the Environment  Ch. 6 Observing Changes in Organisms  Ch. 7 Soil Moisture  Ch. 8 Light and Plant Growth  Ch. 9 Temperature and Plant Development  Ch. 10 Plant Responses to Water  Ch. 11 Plant Responses to Chemicals  Ch. 13 Temperature and Isopods  Ch. 14 The Best Environment for Isopods  Ch. 15 The Environment of Hermit Crabs  Ch. 16 The Environment of Beetles</p>
<b>4.2.5 Write descriptions of investigations, using observations and other evidence as support for explanations.</b>	
<b>Support from Current Curriculum:</b>	<p><u><b>Relative Motion and Position Curriculum</b></u>  Ch. 2 Variables of Paper Airplanes  Ch. 8 “Inventing” Relative Motion  Ch. 10 Making Flip Books  Ch. 18 The Sun’s Relative Position and Motion  Ch. 20 Eclipses of the Sun and the Moon  <u><b>Environments Curriculum</b></u>  Ch. 2 The Growth Race  Ch. 4 Responses of Organisms  Ch. 5 Recording Changes in the Environment  Ch. 6 Observing Changes in Organisms  Ch. 7 Soil Moisture  Ch. 9 Temperature and Plant Development  Ch. 10 Plant Responses to Water  Ch. 11 Plant Responses to Chemicals  Ch. 15 The Environment of Hermit Crabs  Ch. 16 The Environment of Beetles  Ch. 17 Building a “Perfect” Habitat</p>
<b>4.2.6 Support statements with facts found in print and electronic media, identify the sources used, and expect others to do the same.</b>	
<b>Support from Current Curriculum:</b>	<p><u><b>Relative Motion and Position Curriculum</b></u>  Ch. 14 “Inventing” Polar Coordinates (pg. 168 Science, Technology and Society)  Ch. 16 Mapping the Playground (pg. 184 Science, Technology and Society)</p>
<b>4.2.7 Identify better reasons for believing something than “Everybody knows that...” or “I just know” and discount such reasons when given by others.</b>	

Support from Current Curriculum:	<u><a href="#">Relative Motion and Position Curriculum</a></u> Ch. 17 The Earth, the Sun, and Their Motion Ch. 18 The Sun's Relative Position and Motion Ch. 19 The Moon's Relative Position and Motion Ch. 20 Eclipses of the Sun and the Moon <u><a href="#">Environments Curriculum</a></u> Ch. 17 Building a "Perfect" Habitat			
<b>Standard 3</b> <b>The Physical Setting</b>		Excellent	Adequate	Needs Development
<b>4.3.1 Observe and report that the moon can be seen sometimes at night and sometimes during the day.</b>				
Support from Current Curriculum:	<u><a href="#">Relative Motion and Position Curriculum</a></u> Ch. 19 The Moon's Relative Position and Motion			
<b>4.3.2 Begin to investigate and explain that air is a substance that surrounds us, takes up space, and whose movements we feel as wind.</b>				
Support from Current Curriculum:	<u><a href="#">Environments Curriculum</a></u> Ch. 5 Recording Changes in the Environment (pg. 58 Science Challenge) Ch. 5 Recording Changes in the Environment (pg. 58 Science Extension) Ch. 5 Recording Changes in the Environment (pg. 58 Science and Math)			
<b>4.3.3 Identify salt as the major difference between fresh and ocean waters.</b>				
Support from Current Curriculum:				
<b>4.3.4 Describe some of the effects of oceans on climate.</b>				
Support from Current Curriculum:				
<b>4.3.5 Describe how waves, wind, water, and glacial ice shape and reshape Earth's land surface by the erosion of rock and soil in some areas and depositing them in other areas.</b>				
Support from Current Curriculum:				
<b>4.3.6 Recognize and describe that rock is composed of different combinations of minerals.</b>				
Support from Current Curriculum:				
<b>4.3.7 Explain that smaller rocks come from the breakage and weathering of bedrock and larger rocks and that soil is made partly from weathered rock, partly from plant remains, and also contains many living organisms.</b>				
Support from Current Curriculum:				
<b>4.3.8 Explain that the rotation of Earth on its axis every 24 hours produces the night-and-day cycle.</b>				
Support from Current Curriculum:	<u><a href="#">Relative Motion and Position Curriculum</a></u> Ch. 17 The Earth, the Sun, and Their Motion Ch. 18 The Sun's Relative Position and Motion (pg. 221 Science and Math)			
<b>4.3.9 Draw or correctly select drawings of shadows and their direction and length at different times of day.</b>				
Support from Current Curriculum:	<u><a href="#">Relative Motion and Position Curriculum</a></u> Ch. 18 The Sun's Relative Position and Motion Ch. 20 Eclipses of the Sun and the Moon			
<b>4.3.10 Demonstrate that the mass of a whole object is always the same as the sum of the masses of its parts.</b>				

Support from Current Curriculum:				
<b>4.3.11 Investigate, observe, and explain that things that give off light often also give off heat.</b>				
Support from Current Curriculum:	<u>Environments Curriculum</u> Ch. 9 Temperature and Plant Development			
<b>4.3.12 Investigate, observe, and explain that heat is produced when one object rubs against another, such as one's hands rubbing together.</b>				
Support from Current Curriculum:				
<b>4.3.13 Observe and describe the things that give off heat, such as people, animals, and the sun.</b>				
Support from Current Curriculum:				
<b>4.3.14 Explain that energy in fossil fuels comes from plants that grew long ago.</b>				
Support from Current Curriculum:				
<b>4.3.15 Demonstrate that without touching them, a magnet pulls all things made of iron and either pushes or pulls other magnets.</b>				
Support from Current Curriculum:				
<b>4.3.16 Investigate and describe that without touching them, material that has been electrically charged pulls all other materials and may either push or pull other charged material.</b>				
Support from Current Curriculum:				
<b>Standard 4</b>		<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>The Living Environment</b>				
<b>4.4.1 Investigate, such as by using microscopes, to see that living things are made mostly of cells.</b>				
Support from Current Curriculum:				
<b>4.4.2 Investigate, observe, and describe that insects and various other organisms depend on dead plant and animal material for food.</b>				
Support from Current Curriculum:	<u>Environments Curriculum</u> Ch. 1 Reviewing Populations			
<b>4.4.3 Observe and describe that organisms interact with one another in various ways, such as providing food, pollination, and seed dispersal.</b>				
Support from Current Curriculum:	<u>Environments Curriculum</u> Ch. 1 Reviewing Populations Ch. 12 A Place to Live			
<b>4.4.4 Observe and describe that some source of energy is needed for all organisms to stay alive and grow.</b>				
Support from Current Curriculum:	<u>Environments Curriculum</u> Ch. 1 Reviewing Populations Ch. 3 Environmental Factors Ch. 8 Light and Plant Growth Ch. 12 A Place to Live Ch. 17 Building a "Perfect" Habitat			

<b>4.4.5 Observe and explain that most plants produce far more seeds than those that actually grow into new plants.</b>				
Support from Current Curriculum:				
<b>4.4.6 Explain how in all environments, organisms are growing, dying, and decaying, and new organisms are being produced by the old ones.</b>				
Support from Current Curriculum:	<u><a href="#">Environments Curriculum</a></u> Ch. 1 Reviewing Populations Ch. 12 A Place to Live Ch. 17 Building a “Perfect” Habitat			
<b>4.4.7 Describe that human beings have made tools and machines, such as x-rays, microscopes, and computers, to sense and do things that they could not otherwise sense or do at all, or as quickly, or as well.</b>				
Support from Current Curriculum:	<u><a href="#">Environments Curriculum</a></u> Ch. 7 Soil Moisture (pg. 75 Science, Technology and Society)			
<b>4.4.8 Know and explain that artifacts and preserved remains provide some evidence of the physical characteristics and possible behavior of human beings who lived a very long time ago.</b>				
Support from Current Curriculum:	<u><a href="#">Relative Motion and Position Curriculum</a></u> Ch. 17 The Earth, the Sun, and Their Motion (pg. 207 Science, Technology and Society) Ch. 20 Eclipses of the Sun and the Moon (pg. 246 Science Extension)			
<b>4.4.9 Explain that food provides energy and materials for growth and repair of body parts. Recognize that vitamins and minerals, present in small amounts in foods, are essential to keep everything working well. Further understand that as people grow up, the amounts and kinds of food and exercise needed by the body may change.</b>				
Support from Current Curriculum:				
<b>4.4.10 Explain that if germs are able to get inside the body, they may keep it from working properly. Understand that for defense against germs, the human body has tears, saliva, skin, some blood cells, and stomach secretions. Also note that a healthy body can fight most germs that invade it. Recognize, however, that there are some germs that interfere with the body’s defenses.</b>				
Support from Current Curriculum:				
<b>4.4.11 Explain that there are some diseases that human beings can only catch once. Explain that there are many diseases that can be prevented by vaccinations, so that people do not catch them even once.</b>				
Support from Current Curriculum:				
<b>Standard 5</b>				
<b>The Mathematical World</b>		Excellent	Adequate	Needs Development
<b>4.5.1 Explain that the meaning of numerals in many-digit numbers depends on their positions.</b>				
Support from Current Curriculum:				
<b>4.5.2 Explain that in some situations, “0” means none of something, but in others it may be just the label of some point on a scale.</b>				
Support from Current Curriculum:	<u><a href="#">Relative Motion and Position Curriculum</a></u> Ch. 13 Describing Directions (pg. 159 Science and Math)			
<b>4.5.3 Illustrate how length can be thought of as unit lengths joined together, area as a collection of unit squares, and volume as a set of unit cubes.</b>				

Support from Current Curriculum:				
<b>4.5.4 Demonstrate how graphical displays of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.</b>				
Support from Current Curriculum:	<u>Relative Motion and Position Curriculum</u> Ch. 2 Variables of Paper Airplanes <u>Environments Curriculum</u> Ch. 2 The Growth Race Ch. 5 Recording Changes in the Environment Ch. 8 Light and Plant Growth Ch. 10 Plant Responses to Water Ch. 11 Plant Responses to Chemicals Ch. 13 Temperature and Isopods Ch. 14 The Best Environment for Isopods Ch. 15 The Environment of Hermit Crabs Ch. 16 The Environment of Beetles			
<b>4.5.5 Explain how reasoning can be distorted by strong feelings.</b>				
Support from Current Curriculum:				
<b>Standard 6 Common Themes</b>			Excellent	Adequate
<b>4.6.1 Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.</b>				
Support from Current Curriculum:	<u>Relative Motion and Position Curriculum</u> Ch. 9 Reporting Relative Motion			
<b>4.6.2 Show that something may not work as well, or at all, if a part of it is missing, broken, worn out, mismatched, or incorrectly connected.</b>				
Support from Current Curriculum:	<u>Relative Motion and Position Curriculum</u> Ch. 2 Variables of Paper Airplanes			
<b>4.6.3 Recognize that and describe how changes made to a model can help predict how the real thing can be altered.</b>				
Support from Current Curriculum:	<u>Relative Motion and Position Curriculum</u> Ch. 2 Variables of Paper Airplanes <u>Environments Curriculum</u> Ch. 12 A Place to Live Ch. 17 Building a "Perfect" Habitat			
<b>4.6.4 Observe and describe that some features of things may stay the same even when other features change.</b>				
Support from Current Curriculum:	<u>Relative Motion and Position Curriculum</u> Ch. 10 Making Flip Books			

# FOSS Correlation with Indiana State Educational Science Standards

## Grade Five – Energy Sources and Communities Curriculum

Standard 1 <b>The Nature of Science and Technology</b>		Excellent	Adequate	Needs Development
<b>5.1.1 Recognize and describe that results of similar scientific investigations may turn out differently because of inconsistencies in methods, materials, and observations.</b>				
<b>Support from Current Curriculum</b>	<u><b>Energy Sources Curriculum</b></u> Ch. 1 Investigating Rolling Spheres Ch. 2 Properties of Tracks Ch. 3 Colliding Spheres Ch. 4 Exploring Rotoplanes Ch. 9 Mixing Warm and Cold Water Ch. 10 Interacting Water Systems Ch. 13 Energy Transfer from Spheres to Sliders <u><b>Communities Curriculum</b></u> Ch. 2 Seeds to Plants Ch. 5 Which Seed Parts Develop and Grow? Ch. 6 Do Plants Need Light to Grow? Ch. 7 Cotyledons			
<b>5.1.2 Begin to evaluate the validity of claims based on the amount and quality of the evidence cited.</b>				
<b>Support from Current Curriculum</b>				
<b>5.1.3 Explain that doing science involves many different kinds of work and engages men, women, and children of all ages and backgrounds.</b>				
<b>Support from Current Curriculum</b>	<u><b>Energy Source Curriculum</b></u> Ch. 15 Problem Solving Using Spheres and Sliders			
<b>5.1.4 Give examples of technology, such as telescopes, microscopes, and cameras, that enable scientists and others to observe things that are too small or too far away to be seen without them and to study the motion of objects that are moving very rapidly or are hardly moving.</b>				
<b>Support from Current Curriculum</b>				
<b>5.1.5 Explain that technology extends the ability of people to make positive and/or negative changes in the world.</b>				
<b>Support from Current Curriculum</b>	<u><b>Energy Sources Curriculum</b></u> Ch. 19 Converting Solar Energy to Electricity Ch. 20 Controlled Experiments with Solar Cells <u><b>Communities Curriculum</b></u> Ch. 3 Seeds and Plants as Food			
<b>5.1.6 Explain how the solution to one problem, such as the use of pesticides in agriculture or the use of dumps for waste disposal, may create other problems.</b>				

Support from Current Curriculum			
<b>5.1.7 Give examples of materials not present in nature, such as cloth, plastic, and concrete, that have become available because of science and technology.</b>			
Support from Current Curriculum	<u><b>Energy Sources Curriculum</b></u> Ch. 18 Insulating Water Ch. 19 Converting Solar Energy to Electricity Ch. 20 Controlled Experiments with Solar Cells		
Standard 2 <b>Scientific Thinking</b>	Excellent	Adequate	Needs Development
<b>5.2.1 Multiply and divide whole numbers mentally, on paper, and with a calculator.</b>			
Support from Current Curriculum	<u><b>Communities Curriculum</b></u> Ch. 5 Which Seed Parts Develop and Grow? Ch. 7 Cotyledons		
<b>5.2.2 Use appropriate fractions and decimals when solving problems.</b>			
Support from Current Curriculum	<u><b>Communities Curriculum</b></u> Ch. 5 Which Seed Parts Develop and Grow? Ch. 7 Cotyledons		
<b>5.2.3 Choose appropriate common materials for making simple mechanical constructions and repairing things.</b>			
Support from Current Curriculum	<u><b>Energy Sources Curriculum</b></u> Ch. 4 Exploring Rotoplanes Ch. 11 Ice Melting and Preserving Ch. 18 Insulating Water <u><b>Communities Curriculum</b></u> Ch. 10 Plant-Eaters		
<b>5.2.4 Keep a notebook to record observations and be able to distinguish inferences from actual observations.</b>			
Support from Current Curriculum	<u><b>Energy Sources Curriculum</b></u> Ch. 1 Investigating Rolling Spheres Ch. 2 Properties of Tracks Ch. 3 Colliding Spheres Ch. 4 Exploring Rotoplanes Ch. 5 "Inventing" Energy Sources and Receivers Ch. 6 Transferring Energy Ch. 7 "Inventing" Energy Chains Ch. 8 Investigating and Reading Celsius Thermometers Ch. 9 Mixing Warm and Cold Water Ch. 10 Interacting Water Systems Ch. 11 Ice Melting and Preserving Ch. 12 Warm Water Interacting with Ice Ch. 13 Energy Transfer from Spheres to Sliders Ch. 14 Adding Weight to the Slider System Ch. 15 Problem Solving Using Spheres and Sliders Ch. 16 Transferring Solar Energy to Water Ch. 17 Controlled Solar Energy Experiments Ch. 18 Insulating Water Ch. 19 Converting Solar Energy to Electricity Ch. 20 Controlled Experiments with Solar Cells <u><b>Communities Curriculum</b></u>		

	<p>Ch. 1 Review</p> <p>Ch. 2 Seeds to Plants</p> <p>Ch. 3 Seeds and Plants as Food</p> <p>Ch. 4 Looking at Seeds</p> <p>Ch. 5 Which Seed Parts Develop and Grow?</p> <p>Ch. 6 Do Plants Need Light to Grow?</p> <p>Ch. 7 Cotyledons</p> <p>Ch. 8 A Habitat for Plants and Animals</p> <p>Ch. 9 Beans Forever</p> <p>Ch. 10 Plant-Eaters</p> <p>Ch. 11 How Much Food Do Crickets Eat?</p> <p>Ch. 12 Animal-Eaters</p> <p>Ch. 13 More Plant-Eaters</p> <p>Ch. 14 What Happens to Dead Organisms?</p> <p>Ch. 15 Bananas and Yeast</p> <p>Ch. 16 Reproduction</p> <p>Ch. 17 Producers, Consumers, and Decomposers</p> <p>Ch. 18 Communities of Organisms</p> <p>Ch. 19 Communities Game</p> <p>Ch. 20 Humans in the Community</p>
<p><b>5.2.5 Use technology, such as calculators or spreadsheets, in determining area and volume from linear dimensions. Find area, volume, mass, time, and cost, and find the difference between two quantities of anything.</b></p>	
<p><b>Support from Current Curriculum</b></p>	
<p><b>5.2.6 Write instructions that others can follow in carrying out a procedure.</b></p>	
<p><b>Support from Current Curriculum</b></p>	
<p><b>5.2.7 Read and follow step-by-step instructions when learning new procedures.</b></p>	
<p><b>Support from Current Curriculum</b></p>	<p><u><b>Energy Sources Curriculum</b></u></p> <p>Ch. 1 Investigating Rolling Spheres</p> <p>Ch. 2 Properties of Tracks</p> <p>Ch. 3 Colliding Spheres</p> <p>Ch. 4 Exploring Rotoplanes</p> <p>Ch. 5 "Inventing" Energy Sources and Receivers</p> <p>Ch. 6 Transferring Energy</p> <p>Ch. 7 "Inventing" Energy Chains</p> <p>Ch. 8 Investigating and Reading Celsius Thermometers</p> <p>Ch. 9 Mixing Warm and Cold Water</p> <p>Ch. 10 Interacting Water Systems</p> <p>Ch. 11 Ice Melting and Preserving</p> <p>Ch. 12 Warm Water Interacting with Ice</p> <p>Ch. 13 Energy Transfer from Spheres to Sliders</p> <p>Ch. 14 Adding Weight to the Slider System</p> <p>Ch. 15 Problem Solving Using Spheres and Sliders</p> <p>Ch. 16 Transferring Solar Energy to Water</p> <p>Ch. 17 Controlled Solar Energy Experiments</p> <p>Ch. 18 Insulating Water</p> <p>Ch. 19 Converting Solar Energy to Electricity</p> <p>Ch. 20 Controlled Experiments with Solar Cells</p> <p><u><b>Communities Curriculum</b></u></p> <p>Ch. 1 Review</p> <p>Ch. 2 Seeds to Plants</p> <p>Ch. 3 Seeds and Plants as Food</p>

	<p>Ch. 4 Looking at Seeds  Ch. 5 Which Seed Parts Develop and Grow?  Ch. 6 Do Plants Need Light to Grow?  Ch. 7 Cotyledons  Ch. 8 A Habitat for Plants and Animals  Ch. 9 Beans Forever  Ch. 10 Plant-Eaters  Ch. 11 How Much Food Do Crickets Eat?  Ch. 12 Animal-Eaters  Ch. 13 More Plant-Eaters  Ch. 14 What Happens to Dead Organisms?  Ch. 15 Bananas and Yeast  Ch. 16 Reproduction  Ch. 17 Producers, Consumers, and Decomposers  Ch. 18 Communities of Organisms  Ch. 19 Communities Game  Ch. 20 Humans in the Community</p>			
<p><b>5.2.8 Recognize when and describe that comparisons might not be accurate because some of the conditions are not kept the same.</b></p>				
<p><b>Support from Current Curriculum</b></p>	<p><u><b>Energy Sources Curriculum</b></u>  Ch. 1 Investigating Rolling Spheres  Ch. 2 Properties of Tracks  Ch. 3 Colliding Spheres  Ch. 4 Exploring Rotoplanes  Ch. 9 Mixing Warm and Cold Water  Ch. 10 Interacting Water Systems  Ch. 13 Energy Transfer from Spheres to Sliders  <u><b>Communities Curriculum</b></u>  Ch. 2 Seeds to Plants  Ch. 5 Which Seed Parts Develop and Grow?  Ch. 6 Do Plants Need Light to Grow?  Ch. 7 Cotyledons</p>			
<p>Standard 3  <b>The Physical Setting</b></p>		<p>Excellent</p>	<p>Adequate</p>	<p>Needs Development</p>
<p><b>5.3.1 Explain that telescopes are used to magnify distant objects in the sky including the moon and the planets.</b></p>				
<p><b>Support from Current Curriculum</b></p>				
<p><b>5.3.2 Observe and describe that stars are like the sun, some being smaller and some being larger, but they are so far away that they look like points of light.</b></p>				
<p><b>Support from Current Curriculum</b></p>				
<p><b>5.3.3 Observe the stars and identify stars that are unusually bright and those that have unusual colors, such as reddish or bluish.</b></p>				
<p><b>Support from Current Curriculum</b></p>				
<p><b>5.3.4 Investigate that when liquid water disappears it turns into a gas (vapor) mixed into the air and can reappear as a liquid when cooled or as a solid if cooled below the freezing point of water.</b></p>				

Support from Current Curriculum	<u><a href="#">Communities Curriculum</a></u> Ch. 16 – Transferring Solar Energy to Water
5.3.5 Observe and explain that clouds and fog are made of tiny droplets of water.	
Support from Current Curriculum	
5.3.6 Demonstrate that things on or near the Earth are pulled toward it by the Earth's gravity.	
Support from Current Curriculum	
5.3.7 Describe that, like all planets and stars, the Earth is approximately spherical in shape.	
Support from Current Curriculum	
5.3.8 Investigate, observe, and describe that heating and cooling cause changes in the properties of materials, such as water turning into steam by boiling and water turning into ice by freezing. Notice that many kinds of changes occur faster at higher temperatures.	
Support from Current Curriculum	<u><a href="#">Energy Sources Curriculum</a></u> Ch. 8 Investigating and Reading Celsius Thermometers Ch. 11 Ice Melting and Preserving Ch. 12 Warm Water Interacting with Ice
5.3.9 Investigate, observe, and describe that when warmer things are put with cooler ones, the warm ones lose heat and the cool ones gain it until they are all at the same temperature. Demonstrate that a warmer object can warm a cooler one by contact or at a distance.	
Support from Current Curriculum	<u><a href="#">Energy Sources Curriculum</a></u> Ch. 9 Mixing Warm and Cold Water Ch. 10 Interacting Water Systems Ch. 12 Warm Water Interacting with Ice
5.3.10 Investigate that some materials conduct heat much better than others, and poor conductors can reduce heat loss.	
Support from Current Curriculum	<u><a href="#">Energy Sources Curriculum</a></u> Ch. 11 Ice Melting and Preserving Ch. 16 Transferring Solar Energy to Water Ch. 17 Controlled Solar Energy Experiments Ch. 18 Insulating Water
5.3.11 Investigate and describe that changes in speed or direction of motion of an object are caused by forces. Understand that the greater the force, the greater the change in motion and the more massive an object, the less effect a given force will have.	
Support from Current Curriculum	<u><a href="#">Energy Sources Curriculum</a></u> Ch. 1 Investigating Rolling Spheres Ch. 2 Properties of Tracks Ch. 3 Colliding Spheres Ch. 13 Energy Transfer from Spheres to Sliders Ch. 14 Adding Weight to the Slider System Ch. 15 Problem Solving Using Spheres and Sliders
5.3.12 Explain that objects move at different rates, with some moving very slowly and some moving too quickly for people to see them.	
Support from Current Curriculum	<u><a href="#">Energy Sources Curriculum</a></u> Ch. 2 Properties of Tracks Ch. 3 Colliding Spheres Ch. 4 Exploring Rotoplanes
5.3.13 Demonstrate that the Earth's gravity pulls any object toward it without touching it.	

Support from Current Curriculum			
Standard 4 <b>The Living Environment</b>	Excellent	Adequate	Needs Development
5.4.1 Explain that for offspring to resemble their parents there must be a reliable way to transfer information from one generation to the next.			
Support from Current Curriculum	<u>Communities Curriculum</u> Ch. 16 Reproduction		
5.4.2 Observe and describe that some living things consist of a single cell that needs food, water, air, a way to dispose of waste, and an environment in which to live.			
Support from Current Curriculum	<u>Communities Curriculum</u> Ch. 4 Looking at Seeds Ch. 14 What Happens to Dead Organisms? Ch. 15 Bananas and Yeast		
5.4.3 Observe and explain that some organisms are made of a collection of similar cells that benefit from cooperating. Explain that some organisms' cells, such as human nerve cells and muscle cells, vary greatly in appearance and perform very different roles in the organism.			
Support from Current Curriculum	<u>Communities Curriculum</u> Ch. 5 Which Seed Parts Develop and Grow?		
5.4.4 Explain that in any particular environment, some kinds of plants and animals survive well, some do not survive as well, and some cannot survive at all.			
Support from Current Curriculum	<u>Communities Curriculum</u> Ch. 8 A Habitat for Plants and Animals Ch. 10 Plant-Eaters Ch. 12 Animal-Eaters Ch. 13 More Animal-Eaters Ch. 18 Communities of Organisms		
5.4.5 Explain how changes in an organism's habitat are sometimes beneficial and sometimes harmful.			
Support from Current Curriculum	<u>Communities Curriculum</u> Ch. 1 Review Ch. 10 Plant-Eaters Ch. 12 Animal Eaters		
5.4.6 Recognize and explain that most microorganisms do not cause disease and many are beneficial.			
Support from Current Curriculum	<u>Communities Curriculum</u> Ch. 14 What Happens to Dead Organisms? Ch. 15 Bananas and Yeast Ch. 17 Producers, Consumers, and Decomposers		
5.4.7 Explain that living things, such as plants and animals, differ in their characteristics, and that sometimes these differences can give members of these groups (plants and animals) an advantage in surviving and reproducing.			
Support from Current Curriculum	<u>Communities Curriculum</u> Ch. 2 Seeds to Plants Ch. 16 Reproduction		
5.4.8 Observe that and describe how fossils can be compared to one another and to living organisms according to their similarities and differences.			

Support from Current Curriculum			
5.4.9 Explain that like other animals, human beings have body systems.			
Support from Current Curriculum			
Standard 5	<b>The Mathematical World</b>	Excellent	Adequate
5.5.1 Make precise and varied measurements and specify the appropriate units.			
Support from Current Curriculum	<u>Energy Sources Curriculum</u> Ch. 9 Mixing Warm and Cold Water Ch. 10 Interacting Water Systems Ch. 14 Adding Weight to the Slider System Ch. 15 Problem Solving Using Spheres and Sliders Ch. 17 Controlled Solar Energy Experiments Ch. 18 Insulating Water <u>Communities Curriculum</u> Ch. 5 Which Seed Parts Develop and Grow? Ch. 6 Do Plants Need Light to Grow? Ch. 7 Cotyledons		
5.5.2 Show that mathematical statements using symbols may be true only when the symbols are replaced by certain numbers.			
Support from Current Curriculum			
5.5.3 Classify objects in terms of simple figures and solids.			
Support from Current Curriculum			
5.5.4 Compare shapes in terms of concepts, such as parallel and perpendicular, congruence, and symmetry.			
Support from Current Curriculum			
5.5.5 Demonstrate that areas of irregular shapes can be found by dividing them into squares and triangles.			
Support from Current Curriculum			
5.5.6 Describe and use drawings to show shapes and compare locations of things very different in size.			
Support from Current Curriculum			
5.5.7 Explain that predictions can be based on what is known about the past, assuming that conditions are similar.			
Support from	<u>Energy Sources Curriculum</u>		

<b>Current Curriculum</b>	Ch. 9 Mixing Warm and Cold Water Ch. 10 Interacting Water Systems Ch. 12 Warm Water Interacting with Ice Ch. 14 Adding Weight to the Slider System Ch. 15 Problem Solving Using Spheres and Sliders <u><b>Communities Curriculum</b></u> Ch. 7 Cotyledons			
<b>5.5.8 Realize and explain that predictions may be more accurate if they are based on large collections of objects or events.</b>				
<b>Support from Current Curriculum</b>	<u><b>Energy Sources Curriculum</b></u> Ch. 9 Mixing Warm and Cold Water Ch. 10 Interacting Water Systems Ch. 12 Warm Water Interacting with Ice Ch. 14 Adding Weight to the Slider System <u><b>Communities Curriculum</b></u> Ch. 7 Cotyledons			
<b>5.5.9 Show how spreading data out on a number line helps to see what the extremes are, where they pile up, and where the gaps are.</b>				
<b>Support from Current Curriculum</b>	<u><b>Energy Sources Curriculum</b></u> Ch. 4 Exploring Rotoplanes Ch. 10 Interacting Water Systems Ch. 17 Controlled Solar Energy Experiments <u><b>Communities Curriculum</b></u> Ch. 5 Which Seed Parts Develop and Grow? Ch. 6 Do Plants Need Light to Grow? Ch. 7 Cotyledons			
<b>5.5.10 Explain the danger in using only a portion of the data collected to describe the whole.</b>				
<b>Support from Current Curriculum</b>				
Standard 6 <b>Common Themes</b>		<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>5.6.1 Recognize and describe that systems contain objects as well as processes that interact with each other.</b>				
<b>Support from Current Curriculum</b>	<u><b>Energy Sources Curriculum</b></u> Ch. 1 Investigating Rolling Spheres Ch. 3 Colliding Spheres Ch. 4 Exploring Rotoplanes Ch. 5 Inventing Energy Sources and Receivers Ch. 6 Transferring Energy Ch. 7 Inventing Energy Chains Ch. 9 Mixing Warm and Cold Water Ch. 10 Interacting Water Systems Ch. 11 Ice Melting and Preserving Ch. 12 Warm Water Interacting with Ice Ch. 13 Energy Transfer from Spheres to Sliders Ch. 14 Adding Weight to the Slider System Ch. 15 Problem Solving Using Spheres and Sliders <u><b>Communities Curriculum</b></u> Ch. 2 Seeds to Plants Ch. 4 Looking at Seeds Ch. 5 Which Seed Parts Develop and Grow? Ch. 6 Do Plants Need Light to Grow?			

	<p>Ch. 7 Cotyledons  Ch. 8 A Habitat for Plants and Animals  Ch. 10 Plant-Eaters  Ch. 12 Animal-Eaters  Ch. 13. More Animal-Eaters  Ch. 14 What Happens to Dead Organisms?  Ch. 15 Bananas and Yeast  Ch. 16 Reproduction  Ch. 17 Producers, Consumers and Decomposers  Ch. 18 Communities of Organisms</p>
<p><b>5.6.2</b> <i>Demonstrate how geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories can be used to represent objects, events, and processes in the real world, although such representation can never be exact in every detail.</i></p>	
<p><b>Support from Current Curriculum</b></p>	<p><u><b>Energy Sources Curriculum</b></u>  Ch. 2 Properties of Tracks  <u><b>Communities Curriculum</b></u>  Ch. 8 A Habitat for Plants and Animals</p>
<p><b>5.6.3</b> <i>Recognize and describe that almost anything has limits on how big or small it can be.</i></p>	
<p><b>Support from Current Curriculum</b></p>	<p><u><b>Communities Curriculum</b></u>  Ch. 9 Beans Forever  Ch. 16 Reproduction</p>
<p><b>5.6.4</b> <i>Investigate, observe, and describe that things change in steady, repetitive, or irregular ways, such as toy cars continuing in the same direction and air temperature reaching a high or low value. Note that the best way to tell which kinds of change are happening is to make a table or a graph of measurements.</i></p>	
<p><b>Support from Current Curriculum</b></p>	<p><u><b>Communities Curriculum</b></u>  Ch. 5 Which Seed Parts Develop and Grow?  Ch. 6 Do Plants Need Light to Grow?  Ch. 7 Cotyledons</p>

# FOSS Correlation with Indiana State Educational Science Standards

## Grade 6 – Scientific Theories and Ecosystems Curriculum

Standard 1 <b>The Nature of Science and Technology</b>		Excellent	Adequate	Needs Development
<b>6.1.1 Explain that some scientific knowledge, such as the length of the year, is very old and yet is still applicable today. Understand, however, that scientific knowledge is never exempt from review and criticism.</b>				
<b>Support from Current Curriculum:</b>	<u>Scientific Theories Curriculum</u> Ch. 22 Earthquake Myths			
<b>6.1.2 Give examples of different ways scientists investigate natural phenomena and identify processes all scientists use, such as collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations, in order to make sense of the evidence.</b>				
<b>Support from Current Curriculum:</b>	<u>Scientific Theories Curriculum</u> Ch. 23 Earthquakes' Environments and Effects			
<b>6.1.3 Recognize and explain that hypotheses are valuable, even if they turn out not to be true, if they lead to fruitful investigations.</b>				
<b>Support from Current Curriculum:</b>	<u>Scientific Theories Curriculum</u> Ch. 2 Swinging Systems Ch. 3 Electric Circuits Ch. 5 Electric Circuit Puzzles Ch. 6 "Inventing" Scientific Theories Curriculum Ch. 8 "Inventing" a Theory of Colored Light Ch. 9 Discoveries with Colored Light Ch. 14 Investigating Circuits Ch. 15 "Inventing" an Electricity Theory Ch. 22 Earthquake Myths <u>Ecosystems Curriculum</u> Ch. 4 Aquarium-Terrarium System Changes Ch. 7 Evaporation Ch. 8 Condensation Ch. 9 "Inventing" the Water Cycle			
<b>6.1.4 Give examples of employers who hire scientists, such as colleges and universities, businesses and industries, hospitals, and many government agencies.</b>				
<b>Support from Current Curriculum:</b>	<u>Scientific Theories Curriculum</u> Ch. 23 Earthquakes: Environments and Effects Ch. 24 Causes of Earthquakes Ch. 25 Preparing for Natural Disasters <u>Ecosystems Curriculum</u> Ch. 19 Algae and Fertilizer Ch. 21 "Inventing" Pollution			
<b>6.1.5 Identify places where scientists work, including offices, classrooms, laboratories, farms, factories, and natural field settings ranging from space to the ocean floor.</b>				

Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 23 Earthquakes: Environments and Effects Ch. 24 Causes of Earthquakes Ch. 25 Preparing for Natural Disasters <u><b>Ecosystems Curriculum</b></u> Ch. 19 Algae and Fertilizer Ch. 21 “Inventing” Pollution				
<b>6.1.6 Explain that computers have become invaluable in science because they speed up and extend people’s ability to collect, store, compile, and analyze data; prepare research reports; and share data and ideas with investigators all over the world.</b>					
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 23 Earthquakes: Environments and Effects Ch. 24 Causes of Earthquakes Ch. 25 Preparing for Natural Disasters <u><b>Ecosystems Curriculum</b></u> Ch. 19 Algae and Fertilizer Ch. 21 “Inventing” Pollution				
<b>6.1.7 Explain that technology is essential to science for such purposes as access to outer space and other remote locations, sample collection and treatment, measurement, data collection and storage, computation, and communication of information.</b>					
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 23 Earthquakes: Environments and Effects Ch. 24 Causes of Earthquakes Ch. 25 Preparing for Natural Disasters <u><b>Ecosystems Curriculum</b></u> Ch. 7 Evaporation Ch. 19 Algae and Fertilizer Ch. 21 “Inventing” Pollution				
<b>6.1.8 Describe instances showing that technology cannot always provide successful solutions for problems or fulfill every human need.</b>					
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 24 Causes of Earthquakes Ch. 25 Preparing for Natural Disasters				
<b>6.1.9 Explain how technologies can influence all living things.</b>					
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 23 Earthquakes: Environments and Effects <u><b>Ecosystems Curriculum</b></u> Ch. 19 Algae and Fertilizer Ch. 20 Keeping Track of Fertilizer Ch. 22 Food as a Pollutant				
<b>Standard 2</b> <b>Scientific Thinking</b>			Excellent	Adequate	Needs Development
<b>6.2.1 Find the mean and median of a set of data.</b>					
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 2 Swinging Systems				
<b>6.2.2 Use technology, such as calculators or computer spreadsheets, in analysis of data.</b>					
Support from Current Curriculum:					
<b>6.2.3 Select tools, such as cameras and tape recorders, for capturing information.</b>					
Support from Current Curriculum:					

<b>6.2.4 Inspect, disassemble, and reassemble simple mechanical devices and describe what the various parts are for. Estimate what the effect of making a change in one part of a system is likely to have on the system as a whole.</b>			
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 1 Electric and Magnetic Interaction Ch. 3 Electric Circuits Ch. 14 Investigating Circuits Ch. 16 Making an Electroscale		
<b>6.2.5 Organize information in simple tables and graphs and identify relationships they reveal. Use tables and graphs as examples of evidence for explanations when writing essays or writing about lab work, fieldwork, etc.</b>			
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 2 Swinging Systems Ch. 4 Circuit Testers Ch. 7 Investigating Colored Light Ch. 9 Discoveries with Colored Light <u><b>Ecosystems Curriculum</b></u> Ch. 2 Adding Organisms to the Aquarium Ch. 3 Guppies, Lady Beetles, and Aphids Ch. 4 Aquarium-Terrarium System Changes Ch. 5 "Inventing" the Concept of Ecosystem		
<b>6.2.6 Read simple tables and graphs produced by others and describe in words what they show.</b>			
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 4 Circuit Testers		
<b>6.2.7 Locate information in reference books, back issues of newspapers and magazines, compact disks, and computer databases.</b>			
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 17 Natural Ecosystems Ch. 18 Ecosystems and Humans		
<b>6.2.8 Analyze and interpret a given set of findings, demonstrating that there may be more than one good way to do so.</b>			
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 21 Earthquakes and People <u><b>Ecosystems Curriculum</b></u> Ch. 4 Aquarium-Terrarium System Changes		
<b>6.2.9 Compare consumer products, such as generic and brand-name products, and consider reasonable personal trade-offs among them on the basis of features, performance, durability, and costs.</b>			
Support from Current Curriculum:			
<b>Standard 3</b> <b>The Physical Setting</b>			Excellent Adequate Needs Development
<b>6.3.1 Compare and contrast the size, composition, and surface features of the planets that comprise the solar system, as well as the objects orbiting them. Explain that the planets, except Pluto, move around the sun in nearly circular orbits.</b>			
Support from Current Curriculum:			
<b>6.3.2 Observe and describe that planets change their position relative to the background of stars.</b>			
Support from Current Curriculum:			

<b>6.3.3 Explain that Earth is one of several planets that orbit the sun, and that the moon, as well as many artificial satellites and debris, orbit around Earth.</b>	
Support from Current Curriculum:	
<b>6.3.4 Explain that we live on a planet which appears at present to be the only body in the solar system capable of supporting life.</b>	
Support from Current Curriculum:	
<b>6.3.5 Use models or drawings to explain that Earth has different seasons and weather patterns because it turns daily on an axis that is tilted relative to the plane of Earth 's yearly orbit around the sun. Know that because of this, sunlight falls more intensely on different parts of Earth during the year (the accompanying greater length of days also has an effect) and the difference in heating produces seasons and weather patterns.</b>	
Support from Current Curriculum:	
<b>6.3.6 Use models or drawings to explain that the phases of the moon are caused by the moon 's orbit around Earth, once in about 28 days, changing what part of the moon is lighted by the sun and how much of that part can be seen from Earth, both during the day and night.</b>	
Support from Current Curriculum:	
<b>6.3.7 Understand and describe the scales involved in characterizing Earth and its atmosphere. Describe that Earth is mostly rock, that three-fourths of its surface is covered by a relatively thin layer of water, and that the entire planet is surrounded by a relatively thin blanket of air.</b>	
Support from Current Curriculum:	
<b>6.3.8 Explain that fresh water, limited in supply and uneven in distribution, is essential for life and also for most industrial processes. Understand that this resource can be depleted or polluted, making it unavailable or unsuitable for life.</b>	
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 9 "Inventing" the Water Cycle Ch. 18 Ecosystems and Humans Ch. 19 Algae and Fertilizer Ch. 21 "Inventing" Pollution Ch. 22 Food as a Pollutant
<b>6.3.9 Illustrate that the cycling of water in and out of the atmosphere plays an important role in determining climatic patterns.</b>	
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 16 Cycles in an Ecosystem Ch. 17 Natural Ecosystems Ch. 18 Ecosystems and Humans
<b>6.3.10 Describe the motions of ocean waters, such as tides, and identify their causes.</b>	
Support from Current Curriculum:	
<b>6.3.11 Identify and explain the effects of oceans on climate.</b>	
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 17 Natural Ecosystems
<b>6.3.12 Describe ways human beings protect themselves from adverse weather conditions.</b>	
Support from Current Curriculum:	

<b>6.3.13 Identify, explain, and discuss some effects human activities, such as the creation of pollution, have on weather and the atmosphere.</b>	
Support from Current Curriculum:	
<b>6.3.14 Give examples of some minerals that are very rare and some that exist in great quantities. Explain how recycling and the development of substitutes can reduce the rate of depletion of minerals.</b>	
Support from Current Curriculum:	
<b>6.3.15 Explain that although weathered rock is the basic component of soil, the composition and texture of soil and its fertility and resistance to erosion are greatly influenced by plant roots and debris, bacteria, fungi, worms, insects, and other organisms.</b>	
Support from Current Curriculum:	<b><u>Ecosystems Curriculum</u></b> Ch. 1 Aquarium-Terrarium Systems Ch. 3 Guppies, Lady Beetles and Aphids
<b>6.3.16 Explain that human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and farming intensively, have changed the capacity of the environment to support some life forms.</b>	
Support from Current Curriculum:	<b><u>Ecosystems Curriculum</u></b> Ch. 18 Ecosystems and Humans Ch. 19 Algae and Fertilizer Ch. 20 Keeping Track of Fertilizer Ch. 21 "Inventing" Pollution Ch. 22 Food as a Pollutant
<b>6.3.17 Recognize and describe that energy is a property of many objects and is associated with heat, light, electricity, mechanical motion, and sound.</b>	
Support from Current Curriculum:	<b><u>Scientific Theories Curriculum</u></b> Ch. 1 Electric and Magnetic Interactions Ch. 2 Swinging Systems Ch. 3 Electric Circuits Ch. 4 Circuit Testers Ch. 6 Inventing Scientific Theories Curriculum Ch. 14 Investigating Circuits Ch. 15 "Inventing" an Electricity Theory Ch. 16 Making an Electroscale
<b>6.3.18 Investigate and describe that when a new material, such as concrete, is made by combining two or more materials, it has properties that are different from the original materials.</b>	
Support from Current Curriculum:	
<b>6.3.19 Investigate that materials may be composed of parts that are too small to be seen without magnification.</b>	
Support from Current Curriculum:	<b><u>Ecosystems Curriculum</u></b> Ch. 2 Adding Organisms to the Aquariums
<b>6.3.20 Investigate that equal volumes of different substances usually have different masses, as well as different densities.</b>	
Support from Current Curriculum:	
<b>6.3.21 Investigate, using a prism for example, that light is made up of a mixture of many different colors of light, even though the light is perceived as almost white.</b>	
Support from Current Curriculum:	<b><u>Scientific Theories Curriculum</u></b> Ch. 7 Investigating Colored Light Ch. 8 "Inventing" a Theory of Colored Light Ch. 9 Discoveries with Colored Light

<b>6.3.22 Demonstrate that vibrations in materials set up wavelike disturbances, such as sound and earthquake waves, that spread away from the source.</b>			
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 24 Causes of Earthquakes		
<b>6.3.23 Explain that electrical circuits provide a means of transferring electrical energy from sources such as generators to devices in which heat, light, sound, and chemical changes are produced.</b>			
Support from Current Curriculum:	<u><b>Scientific Theories Curriculum</b></u> Ch. 1 Electric and Magnetic Interactions Ch. 3 Electric Circuits Ch. 4 Circuit Testers Ch. 5 Electric Circuit Puzzles		
<b>Standard 4</b> <b>The Living Environment</b>			Excellent Adequate Needs Development
<b>6.4.1 Explain that one of the most general distinctions among organisms is between green plants, which use sunlight to make their own food, and animals, which consume energy-rich foods.</b>			
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 1 Aquarium-Terrarium Systems Ch. 2 Adding Organisms to the Aquarium Ch. 3 Guppies, Lady Beetles, and Aphids Ch. 9 "Inventing" the Water Cycles Ch. 16 Cycles in an Ecosystem		
<b>6.4.2 Give examples of organisms that cannot be neatly classified as either plants or animals, such as fungi and bacteria.</b>			
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 3 Guppies, Lady Beetles, and Aphids Ch. 5 "Inventing" the Concept of Ecosystem Ch. 16 Cycles in an Ecosystem		
<b>6.4.3 Describe some of the great variety of body plans and internal structures animals and plants have that contribute to their being able to make or find food and reproduce.</b>			
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 1 Aquarium-Terrarium Systems Ch. 2 Adding Organisms to the Aquariums Ch. 3 Guppies, Lady Beetles, and Aphids Ch. 4 Aquarium-Terrarium Changes		
<b>6.4.4 Recognize and describe that a species comprises all organisms that can mate with one another to produce fertile offspring.</b>			
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 2 Adding Organisms to the Aquariums Ch. 3 Guppies, Lady Beetles, and Aphids		
<b>6.4.5 Investigate and explain that all living things are composed of cells whose details are usually visible only through a microscope.</b>			
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 1 Aquarium-Terrarium Systems Ch. 2 Adding Organisms to the Aquariums Ch. 3 Guppies, Lady Beetles, and Aphids Ch. 4 Aquarium-Terrarium Changes Ch. 5 "Inventing" the Concept of Ecosystem		
<b>6.4.6 Distinguish the main differences between plant and animal cells, such as the presence of chlorophyll and cell walls in plant cells and their absence in animal cells.</b>			
Support from Current Curriculum:	<u><b>Ecosystems Curriculum</b></u> Ch. 2 Adding Organisms to the Aquarium		
<b>6.4.7 Explain that about two-thirds of the mass of a cell is accounted for by water. Understand that water gives cells many of their properties.</b>			

Support from Current Curriculum:					
<b>6.4.8 Explain that in all environments, such as freshwater, marine, forest, desert, grassland, mountain, and others, organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter. Note that in any environment, the growth and survival of organisms depend on the physical conditions.</b>					
Support from Current Curriculum:	<b><u>Ecosystems Curriculum</u></b> Ch. 5 "Inventing" the Concept of Ecosystem Ch. 17 Natural Ecosystems				
<b>6.4.9 Recognize and explain that two types of organisms may interact in a competitive or cooperative relationship, such as producer/consumer, predator/prey, or parasite/host.</b>					
Support from Current Curriculum:	<b><u>Ecosystems Curriculum</u></b> Ch. 3 Guppies, Lady Beetles, and Aphids Ch. 4 Aquarium-Terrarium Changes				
<b>6.4.10 Describe how life on Earth depends on energy from the sun.</b>					
Support from Current Curriculum:	<b><u>Ecosystems Curriculum</u></b> Ch. 1 Aquarium-Terrarium Systems Ch. 4 Aquarium-Terrarium System Changes Ch. 5 "Inventing" the Concept of Ecosystem Ch. 16 Cycles in an Ecosystem				
<b>6.4.11 Describe that human beings have body systems for obtaining and providing energy, defense, reproduction, and the coordination of body functions.</b>					
Support from Current Curriculum:					
<b>6.4.12 Explain that human beings have many similarities and differences and that the similarities make it possible for human beings to reproduce and to donate blood and organs to one another.</b>					
Support from Current Curriculum:					
<b>6.4.13 Give examples of how human beings use technology to match or exceed many of the abilities of other species.</b>					
Support from Current Curriculum:					
<b>Standard 5</b>			<b>Excellent</b>	<b>Adequate</b>	<b>Needs Development</b>
<b>The Mathematical World</b>					
<b>6.5.1 Demonstrate that the operations addition and subtraction are inverses and that multiplication and division are inverses of each other.</b>					
Support from Current Curriculum:					
<b>6.5.2 Evaluate the precision and usefulness of data based on measurements taken.</b>					
Support from Current Curriculum:	<b><u>Scientific Theories Curriculum</u></b> Ch. 16 Making an Electroscale				
<b>6.5.3 Explain why shapes on a sphere like Earth cannot be depicted on a flat surface without some distortion.</b>					
Support from Current Curriculum:					
<b>6.5.4 Demonstrate how graphs may help to show patterns -such as trends, varying rates of change, gaps, or clusters -which can be used to make predictions.</b>					

Support from Current Curriculum:				
<b>6.5.5 Explain the strengths and weaknesses of using an analogy to help describe an event, object, etc.</b>				
Support from Current Curriculum:				
<b>6.5.6 Predict the frequency of the occurrence of future events based on data.</b>				
Support from Current Curriculum:	<u>Scientific Theories Curriculum</u> Ch. 2 Swinging Systems			
<b>Standard 6</b> <b>Historical Perspectives</b>			Excellent	Adequate
<b>6.6.1 Understand and explain that from the earliest times until now, people have believed that even though countless different kinds of materials seem to exist in the world, most things can be made up of combinations of just a few basic kinds of things. Note that there has not always been agreement, however, on what those basic kinds of things are, such as the theory of long ago that the basic substances were earth, water, air, and fire. Understand that this theory seemed to explain many observations about the world, but as we know now, it fails to explain many others.</b>				
Support from Current Curriculum:				
<b>6.6.2 Understand and describe that scientists are still working out the details of what the basic kinds of matter are on the smallest scale, and of how they combine, or can be made to combine, to make other substances.</b>				
Support from Current Curriculum:				
<b>6.6.3 Understand and explain that the experimental and theoretical work done by French scientist Antoine Lavoisier in the decade between the American and French Revolutions contributed crucially to the modern science of chemistry.</b>				
Support from Current Curriculum:				
<b>Standard 7</b> <b>Common Themes</b>			Excellent	Adequate
<b>6.7.1 Describe that a system, such as the human body, is composed of subsystems.</b>				
Support from Current Curriculum:	<u>Scientific Theories Curriculum</u> Ch. 1 Electric and Magnetic Interactions Ch. 2 Swinging System Ch. 3 Electric Circuits			
<b>6.7.2 Use models to illustrate processes that happen too slowly, too quickly, or on too small a scale to observe directly, or are too vast to be changed deliberately, or are potentially dangerous.</b>				
Support from Current Curriculum:	<u>Scientific Theories Curriculum</u> Ch. 24 Causes of Earthquakes			
<b>6.7.3 Identify examples of feedback mechanisms within systems that serve to keep changes within specified limits.</b>				
Support from Current Curriculum:	<u>Ecosystems Curriculum</u> Ch. 19 – Algae and Fertilizer			

