



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

Correlation to

West Virginia

**SCIENCE CONTENT STANDARDS
AND OBJECTIVES**



Correlation of the West Virginia Science Standards With the Full Option Science System For Grades K – 8

The following correlation of the West Virginia Science Standards for grades K –8 to the Full Option Science System (FOSS™) is to show representative examples of investigations and activities that address the science standards. A citation does not reflect all of the activities from FOSS™ that might address a particular standard.

Kindergarten

Standard 1: Nature of Science (SC.S.K.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.O.K.1.01 ask questions about themselves and their world.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Animals Two by Two Investigation 1, Part 3 Investigation 3, Parts 1-3 Trees Investigation 1, Part 1 Investigation 3, Parts 1-2 Wood and Paper Investigation 1, Parts 3-4 Investigation 3, Part 4 Fabric Investigation 1, Part 4	Pages 22-25 Pages 8-20 Pages 7-14 Pages 10-15 Pages 20-28 Pages 22-25 Pages 20-22
SC.O.K.1.02 listen to and discuss stories about the lives and discoveries of scientists.	FOSS™ Science Stories provide information about the discoveries of science. See also: Wood and Paper Science Stories	Pages 9-12
SC.O.K.1.03 demonstrate curiosity, initiative and creativity by asking questions about the environment noting patterns and variations of natural objects (e.g., trees, leaves, animal structures)	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Animals Two by Two Investigation 2, Part 3 Investigation 3, Parts 1-3 Investigation 4, Part 2 Trees Investigation 2, Parts 2-4 Wood and Paper Investigation 1, Parts 1-2	Pages 18-21 Pages 8-20 Pages 12-15 Pages 10-22 Pages 8-19
SC.O.K.1.04 explore and describe objects and events using the five senses to develop observational skills and make predictions based on personal observation.	Fabric Investigation 1, Parts 1-2 Wood and Paper Investigation 1, Parts 1-2 Investigation 3, Part 1 Trees Investigation 1, Part 1 Investigation 2, Parts 2-3 Investigation 3, Part 1 Animals Two by Two Investigation 1, Parts 1 and 3-4	Pages 6-19 Pages 8-19 Pages 8-12 Pages 7-14 Pages 10-19 Pages 10-14 Pages 10-16 and 22-29
SC.O.K.1.05 use scientific instruments and everyday materials to investigate the natural world (e.g., hand lens, balance, magnets).	Fabric Investigation 1, Parts 4-6 Animals Two by Two Investigation 1, Part 3 Trees Investigation 1, Part 7 Investigation 3, Part 9 Wood and Paper Investigation 1, Parts 3-4 Investigation 3, Part 4	Pages 20-23 Pages 22-25 Pages 31-34 Pages 35-38 Pages 20-27 Pages 22-25

SC.O.K.1.06 use safe and proper techniques for handling, manipulating and caring for science materials (e.g., follow safety rules, maintain a clean work area, treat living organisms humanely).	FOSST™ modules include a “Safety in the Classroom” section and provide specific cautions where appropriate. See for example: Trees Investigation 3 Fabric Investigation 1 Animals Two by Two Investigation 2	Page 13 Page 32 Page 17
SC.O.K.1.07 collect and record information in a variety of ways (e.g., drawings, weather calendar, graphs).	Animals Two by Two Investigation 1, Part 1 Investigation 2, Part 1 Investigation 4, Part 2 Fabric Investigation 1, Part 2 Wood and Paper Investigation 1, Part 5 Trees Investigation 2, Parts 3-4	Pages 10-16 Pages 9-13 Pages 12-15 Pages 12-15 Pages 28-32 Pages 16-22
Standard 2: Content of Science (SC.S.K.2)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSST™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.O.K.2.01 using the five senses, identify living and non-living things.	Animals Two by Two Investigation 1, Parts 1 and 4 Investigation 3, Parts 1 and 3 Trees Investigation 1, Part 1 Investigation 3, Parts 1-2	Pages 10-16 and 26-29 Pages 8-12 and 17-20 Pages 7-14 Pages 10-14
SC.O.K.2.02 observe and describe the movement, growth and changes in plants and animals.	Trees Investigation 1, Part 7 Investigation 3, Parts 6 and 9 Animals Two by Two Investigation 1, Parts 3-4 Investigation 2, Parts 1-3 Investigation 3, Parts 1-3 Investigation 5, Parts 1-2	Pages 31-34 Pages 26-28 and 35-38 Pages 22-29 Pages 9-21 Pages 8-20 Pages 10-19
SC.O.K.2.03 observe and describe models of plants and animals in different environments (e.g., terrariums, aquariums, animals and plants in a forest, pond, field).	Animals Two by Two Investigation 1, Parts 2-4 Investigation 4, Part 4 FOSS Web, Movie: Jellyfish Trees Investigation 1, Part 1 Investigation 3, Part 1 and 3-4 FOSS Web, Activity: Who Lives There?	Pages 17-29 Pages 20-23 Pages 7-14 Pages 10-11 and 15-21
SC.O.K.2.04 describe, compare, sort and group objects in terms of what they are made of (clay, cloth, paper, metal, etc.) and their physical properties of size, shape, color, weight or texture.	Wood and Paper Investigation 1, Parts 1-2 Investigation 3, Part 1 Animals Two by Two Investigation 2, Part 4 Trees Investigation 2, Part 2-4	Pages 8-19 Pages 8-12 Pages 22-24 Pages 10-22
SC.O.K.2.05 identify liquids and solids.	Wood and Paper Investigation 1, Parts 3-4	Pages 20-27

	Investigation 2, Part 2 Fabric Investigation 2, Part 1	Pages 12-15 Pages 7-11
SC.O.K.2.06 identify colors.	Wood and Paper Investigation 1, Part 1 Animals Two by Two Investigation 1, Part 4 Fabric Investigation 1, Part 3 Science Stories	Pages 8-14 Pages 26-29 Pages 16-19 Pages 20-21
SC.O.K.2.07 explore and describe changes in energy (e.g., hot/cold and light/dark).	Animals Two by Two Investigation 5, Part 1	Pages 10-15
SC.O.K.2.08 explore and discuss magnetic properties of objects.		
SC.O.K.2.09 explore and discuss the different ways objects can be moved (e.g., straight, circular, fast, slow).	Animals Two by Two Investigation 1, Parts 3-4 Investigation 2, Parts 1-3 Investigation 3, Parts 1-3 Fabric Investigation 1, Parts 5-6 Wood and Paper Science Stories	Pages 22-29 Pages 9-21 Pages 8-20 Pages 23-33 Pages 16-18
SC.O.K.2.10 observe and record daily changes in weather (e.g., clouds, air temperature).	Trees Tools for Observing Weather Tools 1-6	Pages 6-24
SC.O.K.2.11 identify objects in the day and night sky (e.g., moon, stars, sun).	See grade 1 module <u>Air and Weather</u>	
SC.O.K.2.12 observe and compare differences in earth materials.	See grade 1 module <u>Pebbles, Sand and Silt</u>	

Standard 3: Application of Science (SC.S.K.3)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.O.K.3.01 recognize that models are representations of real things.	Animals Two by Two Investigation 1, Parts 1-2 Fabric Investigation 1, Part 5 Wood and Paper Investigation 2, Parts 3-4 Investigation 4, Part 1 Trees Investigation 1, Part 4 Investigation 2, Part 4	Pages 10-23 Pages 23-28 Pages 16-22 Pages 8-13 Pages 23-24 Pages 20-22
SC.O.K.3.02 observe and point out that change occurs gradually, repetitively, or randomly within the environment.	Trees Investigation 1, Part 7 Investigation 3, Parts 6 and 9 Wood and Paper Investigation 1, Part 3 Investigation 3, Part 4 Animals Two by Two Investigation 5, Parts 1-2	Pages 31-34 Pages 26-28 and 35-38 Pages 20-23 Pages 22-25 Pages 10-19
SC.O.K.3.03 observe and	Fabric	

<p>identify the uses of tools and appliances at home and at play.</p>	<p>Investigation 1, Parts 5-6 Science Stories Wood and Paper Science Stories Trees Investigation 1, Part 8 Science Stories</p>	<p>Pages 23-33 Pages 4-5 and 12-15 Pages 5-8 Pages 35-37 Page 13</p>
<p>SC.O.K.3.04 work in groups, listen to and be tolerant of different viewpoints.</p>	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Trees Investigation 1, Part 7-8 Investigation 3, Part 9 Wood and Paper Investigation 1, Part 4 Animals Two by Two Investigation 3, Parts 1-3</p>	<p> Pages 31-37 Pages 35-38 Pages 24-27 Pages 8-20</p>

Grade One

Standard 1: Nature of Science (SC.S.1.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.1.1.01 ask questions about themselves and their world.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Solids and Liquids Investigation 4, Parts 1-2 New Plants Investigation 3, Parts 1-3 Pebbles, Sand, and Silt Investigation 4, Parts 1-3 Insects Investigation 1, Parts 1-3 Insects and Plants Investigation 5, Parts 1-3 Plants and Animals Investigation 1, Parts 1-3	Pages 7-22 Pages 8-25 Pages 8-25 Pages 8-25 Pages 206-225 Pages 47-72
SC.0.1.1.02 discuss the lives and discoveries of scientists after listening to stories about their lives and discoveries.	FOSS™ Science Stories provide information about the discoveries of science. See also: Pebbles, Sand, and Silt Science Stories	Pages 26-31
SC.O.1.1.03 demonstrate curiosity, initiative and creativity by questioning observations of changes in the environment (e.g., life cycles; motion of celestial objects; sun and shadow).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Insects Investigation 2, Parts 1-3 Air and Weather Investigation 4, Parts 2-3 New Plants Investigation 2, Parts 1-3 Solids and Liquids Investigation 4, Parts 1-2 Insects and Plants Investigation 3, Parts 1-3 Plants and Animals Investigation 3, Parts 1-2	Pages 8-24 Pages 12-24 Pages 8-28 Pages 7-22 Pages 129-151 Page 120--134
SC.0.1.1.04 use scientific instruments and everyday materials to investigate the natural world (e.g., hand lens, balance, magnets, thermometer, seeds, rocks)	Insects Investigation 1, Parts 1-3 Investigation 2, Parts 1-3 Air and Weather Investigation 1, Parts 4-5 Investigation 2, Parts 2 and 4 Investigation 3, Part 4 New Plants Investigation 3, Parts 1-3 Pebbles, Sand, and Silt Investigation 2, Parts 1-4 Insects and Plants Investigation 5, Parts 1-3 Plants and Animals Investigation 1, Parts 1-3	Pages 8-25 Pages 8-24 Pages 12-24 Pages 14-19 and 24-27 Pages 22-27 Pages 8-25 Pages 8-29 Pages 206-225 Pages 47-52
SC.0.1.1.05 use safe and	FOSS™ modules include a	

proper techniques for handling, manipulating and caring for science materials (e.g., follow safety rules, maintain a clean work area, treat living organisms humanely).	<p>“Safety in the Classroom” section and provide specific cautions where appropriate. See for example:</p> <p>New Plants Investigation 2</p> <p>Balance and Motion Investigation 1</p> <p>Air and Weather Investigation 4</p> <p>Plants and Animals Investigation 1, Part 1</p>	<p>Page 24</p> <p>Page 20</p> <p>Page 22</p> <p>Pages 50-51</p>
SC.0.1.1.06 collect, record and compare information using a variety of classification systems (e.g., ordering, sorting, or sequencing) and using a variety of communication techniques (e.g., sketches, pictographs, or models).	<p>Air and Weather Investigation 2, Part 1 Investigation 4, Part 1</p> <p>Insects Investigation 1, Parts 1-3</p> <p>Solids and Liquids Investigation 1, Part 2</p> <p>Pebbles, Sand, and Silt Investigation 2, Part 2</p> <p>Insects and Plants Investigation 1, Parts 1-3</p> <p>Plants and Animals Investigation 1, Part 3</p>	<p>Pages 8-13 Pages 8-11</p> <p>Pages 8-25</p> <p>Pages 17-20</p> <p>Pages 14-17</p> <p>Pages 52-75</p> <p>Pages 63-72</p>

Standard 2: Content of Science (SC.S.1.2)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.1.2.01 classify objects as living or non-living.	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example:</p> <p>New Plants Investigation 1, Parts 2-3 Investigation 3, Parts 1-3 Science Stories</p> <p>Insects Investigation 1, Parts 1-3 Investigation 3, Part 2 Investigation 6, Parts 1-3</p> <p>Insects and Plants Investigation 1, Parts 1-3 Investigation 3, Parts 1-3</p> <p>Plants and Animals Investigation 1, Parts 1-3 Investigation 3, Parts 1-2</p>	<p>Pages 13-30 Pages 8-25 Pages 8-43</p> <p>Pages 8-25 Pages 12-20 Pages 8-22</p> <p>Pages 52-75 Pages 129-151</p> <p>Pages 47-72 Pages 120-134</p>
SC.0.1.2.02 identify that most living things need water, food, light and air.	<p>Insects Investigation 1, Part 1 Investigation 2, Part 1 Investigation 3, Part 2</p> <p>New Plants Investigation 1, Part 2 Investigation 2, Part 1 Investigation 3, Part 2</p> <p>Insects and Plants Investigation 1, Part 1</p>	<p>Pages 8-15 Pages 8-13 Pages 12-20</p> <p>Pages 13-22 Pages 8-14 Pages 14-18</p> <p>Pages 52-61</p>

	Investigation 2, Part 2 Investigation 3, Part 2 Plants and Animals Investigation 1, Part 1 Investigation 3, Parts 1-2 Science Resources	Pages 95-104 Pages 134-144 Pages 47-57 Pages 120-134 Pages 3-7, 21-24
SC.0.1.2.03 describe changes in life cycle of living organisms.	Insects Investigation 1, All Parts Investigation 2, All Parts Investigation 2, All Parts Investigation 4, All Parts Investigation 5, All Parts Science Stories New Plants Investigation 1, Parts 1-3 Insects and Plants Investigation 1-5, all parts Science Resources	Pages 16-33 Pages 8-30 Pages 37-55
SC.0.1.2.04 identify the parts of growing plants as they develop.	New Plants Investigation 1, Part 3 Investigation 3, Part 3 Science Stories FOSS Web, Activity: Watch it Grow Insects and Plants Investigation 2, Part 3 Science Resources Plants and Animals Investigation 1, Parts 1-3 Investigation 2, Pars 1-4 Investigation 4, Parts 1-2 Science Resources Video: How Plants Grow	Pages 23-30 Pages 19-25 Pages 4-15 Pages 105-115 Pages 15-18 Pages 47-72 Pages 87-108 Pages 151-163 Pages 3-12
SC.0.1.2.05 depict movement of living things in air, water and on land. (e.g., birds flying, fish swimming, worms burrowing in soil).	Insects Investigation 1, Parts 1-3 Investigation 2, Parts 1-3 Investigation 3, Part 3 Investigation 4, Parts 2-5 Investigation 5, Parts 1-3 Investigation 6, Parts 1-3 Insects and Plants Investigation 1, Parts 1-3 Investigation 3, Parts 1-3 Investigation 5, Parts 1-3 Plants and Animals Investigation 3, Parts 1-3	Pages 8-25 Pages 8-24 Pages 21-26 Pages 14-28 Pages 10-24 Pages 8-22 Pages 52-75 Pages 129-151 Pages 206-225 Pages 120-140
SC.0.1.2.06 recognize that materials are composed of smaller parts that may be seen with a magnifier.	Pebbles, Sand, and Silt Investigation 4, Parts 1 and 3 Insects Investigation 1, Parts 1-3 Investigation 2, Parts 1-3	Pages 8-14 and 19-25 Pages 8-25 Pages 8-24
SC.0.1.2.07 recognize that materials can be recycled and used again, sometimes in different forms.	New Plants Investigation 1 Insects and Plants Investigation 1, Part 3	Page 29 Page 113
SC.0.1.2.08 recognize that	Solids and Liquids	

water can change from one form to another and give examples of changes.	Investigation 4, Science Extension Science Stories FOSS Web, Activity: Change It Air and Weather Investigation 2, Science Extension	Page 29 Page 16 Page 32
SC.0.1.2.09 predict and investigate the buoyancy of objects in water.	Solids and Liquids Investigation 2, Science Extension	Page 30
SC.0.1.2.10 classify objects as magnetic or non-magnetic.	Solids and Liquids Investigation 3, Science Extension Balance and Motion Investigation 3, Science Extension Science Stories	Page 31 Page 28 Pages 18-21
SC.0.1.2.11 observe and record shadows at different times of the day.		
SC.0.1.2.12 describe the changes in the motion of objects (e.g., slowing, speeding up, curving).	Balance and Motion Investigation 2, Parts 1-3 Investigation 3, Parts 1-3 Science Stories FOSS Web, Activity: Roller Coaster Air and Weather Investigation 3, Parts 1-5	Pages 8-25 Pages 6-25 Pages 22-29 Pages 8-33
SC.0.1.2.13 demonstrate that sounds are produced by vibrations.	Balance and Motion Science Stories	Pages 32-35
SC.01.2.14 observe, identify and record changes in weather and effects on living organisms.	Air and Weather Investigation 2, Parts 1-4 Investigation 4, Part 1 Science Stories FOSS Web, Activity: What's the Weather?	Pages 8-27 Pages 8-11 Pages 18-23
SC.0.1.2.15 recognize that the sun, moon, and stars appear to move.	Air and Weather Investigation 4, Part 3	Pages 19-24
SC.0.1.2.16 observe and discuss the importance of objects in the day and night sky.	Air and Weather Investigation 4, Part 3 New Plants Science Stories	Pages 19-24 Page 6
SC.0.1.2.17 use a model to compare land and water features on the Earth.	Pebbles, Sand and Silt Science Stories	Pages 3-7 and 11-13
SC.0.1.2.18 identify important uses of air.	Air and Weather Investigation 1, Part 3 Science Stories Insects Investigation 1, Part 1 Investigation 2, Part 1	Pages 17-20 Pages 3-6 Pages 8-15 Pages 8-13
SC.0.1.2.19 investigate and compare the properties of soil (e.g., sand, clay, humus).	Pebbles, Sand and Silt Investigation 4, Parts 1-3 Science Stories	Pages 8-25 Pages 20-25

Standard 3: Application of Science (SC.S.1.3)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.01.3.01 identify that systems are made of parts that interact with one another.	Balance and Motion Investigation 1, Parts 2-4 FOSS Web, Activity: Roller Coaster Air and Weather Investigation 1, Part 3-6 Insects Science Stories New Plants Investigation 1, Part 3 Science Stories Insects and Plants Investigation 2, Part 3 Plants and Animals Investigation 3, Parts 1-2	Pages 14-28 Pages 17-38 Pages 12-15 Pages 23-30 Pages 7 and 12-15 Pages 105-115 Pages 120-134
SC.01.3.02 use models as representations of real things.	New Plants Investigation 2, Parts 1-2 Pebbles, Sand, and Silt Investigation 3, Part 5 Insects Investigation 3, Part 2 Air and Weather Investigation 1, Parts 3 and 6 Investigation 2, Part 2 Insects and Plants Investigation 3, Parts 2-3 Plants and Animals Investigation 3, Parts 1-2	Pages 8-19 Pages 24-29 Pages 12-20 Pages 17-20 and 34-38 Pages 14-19 Pages 134-151 Pages 120-134
SC.0.1.3.03 distinguish between natural and man-made objects.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Pebbles, Sand and Silt Investigation 3, Parts 1-5 Science Stories New Plants Science Stories Plants and Animals Science Resources	Pages 8-29 Pages 3-23 Pages 16-21 Pages 9-14
SC.0.1.3.04 listen to and be tolerant of different viewpoints while working in collaborative groups.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Solids and Liquids Investigation 4, Parts 1-3 Balance and Motion Investigation 3, Parts 1-3 New Plants Investigation 2, Parts 1-3 Air and Weather Investigation 2, Parts 2-4 Insects and Plants Investigation 5, Parts 1-3 Plants and Animals Investigation 1, Parts 1-3	Pages 7-27 Pages 6-25 Pages 8-28 Pages 14-27 Pages 206-225 Pages 47-62

<p>SC.0.1.3.05 develop respect and responsibility for the environment by engaging in conservation practices (e.g., recycling, trash clean-up).</p>	<p>New Plants Investigation 1 Insects and Plants Investigation 1, Part 1</p>	<p>Page 29 Page 113</p>
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Grade Two

Standard 1: Nature of Science (SC.S.2.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.2.1.01 interpret science as the human’s search for an understanding of the world by asking questions about themselves and their world.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Solids and Liquids Investigation 4, Parts 1-2 New Plants Investigation 3, Parts 1-3 Pebbles, Sand, and Silt Investigation 4, Parts 1-3 Insects Investigation 1, Part 1 Insects and Plants Investigation 5, Parts 1-3 Plants and Animals Investigation 1, Parts 1-3	Pages 7-22 Pages 8-25 Pages 8-25 Pages 8-25 Pages 206-225 Pages 47-62
SC.0.2.1.02 compare the lives and discoveries of scientists of different cultures and backgrounds.	FOSS™ Science Stories provide information about the discoveries of science. See also: Pebbles, Sand, and Silt Science Stories	Pages 26-31
SC.0.2.1.03 identify and discuss science careers in the community.	Solids and Liquids Investigation 2, Language Extension Pebbles, Sand, and Silt Investigation 1, Language Extension Air and Weather Investigation 2, Language Extension Science Stories New Plants Science Stories Plants and Animals Science Resources	Page 28 Page 30 Page 28 Pages 14-15 Pages 16-21 Pages 9-14
SC.0.2.1.04 demonstrate curiosity, initiative and creativity by observing, classifying and comparing and analyzing natural objects in the environment.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Insects Investigation 2, Parts 1-3 Air and Weather Investigation 4, Parts 2-3 New Plants Investigation 2, Parts 1-3 Solids and Liquids Investigation 4, Parts 1-2 Insects and Plants Investigation 3, Parts 1-3 Plants and Animals Investigation 3, Parts 1-2	Pages 8-24 Pages 12-24 Pages 8-28 Pages 7-22 Pages 129-151 Pages 120-134
SC.02.1.05 manipulate scientific instruments and	Insects Investigation 1, Parts 1-3	Pages 8-25

everyday materials to investigate the natural world (e.g., hand lens, balance, thermometer, metric ruler, magnets, weather instruments, or calculators).	Investigation 2, Parts 1-3 Air and Weather Investigation 1, Parts 4-5 Investigation 2, Parts 2 and 4 Investigation 3, Part 4 New Plants Investigation 3, Parts 1-3 Pebbles, Sand, and Silt Investigation 2, Parts 1-4 Insects and Plants Investigation 5, Parts 1-3 Plants and Animals Investigation 1, Parts 1-3	Pages 8-24 Pages 21-33 Pages 14-19 and 24-27 Pages 22-27 Pages 8-25 Pages 8-29 Pages 206-225 Pages 47-72
SC.02.1.06 measure the length and width of various objects using standard and non-standard units (e.g., metric ruler, paper clips, counting bears).	Solids and Liquids Investigation 1, Math Extension New Plants Investigation 1, Part 3 Plants and Animals Investigation 1, Part 3	Page 27 Pages 23-30 Pages 63-72
SC.02.1.07 use safe and proper techniques for handling, manipulating, and caring for science materials (e.g., follow safety rules, maintain a clean work area, treat living organisms humanely).	FOSS™ modules include a “Safety in the Classroom” section and provide specific cautions where appropriate. See for example: New Plants Investigation 2 Balance and Motion Investigation 1 Air and Weather Investigation 4 Plants and Animals Investigation 1, Part 1	Page 24 Page 20 Page 22 Pages 50-51
SC.02.1.07 design and conduct simple investigations; observe, collect and record information using a variety of classification systems; describe trends of data; and make predictions based on that data (e.g., seasonal changes and plants; temperature and weather)	Air and Weather Investigation 2, Parts 1-4 Investigation 4, Part 1 New Plants Investigation 2, Parts 1-2 Pebbles, Sand and Silt Investigation 3, Part 3 Solids and Liquids Investigation 4, Parts 1-3 Plants and Animals Investigation 1, Parts 1-2	Pages 8-27 Pages 8-11 Pages 8-19 Pages 19-25 Pages 7-27 Pages 47-62

Standard 2: Content of Science (SC.S.2.2)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.2.2.01 identify that plants and animals have different structures.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: New Plants Investigation 1-4, All Parts Science Stories Insects Investigation 1-6, All Parts Science Stories	Pages 22-43 Pages 2-35

	<p>Insects and Plants Investigation 1-5, All Parts Science Resources</p> <p>Plants and Animals Investigation 1-4, All Parts Science Resources</p>	<p>Pages 15-18, 30-33</p> <p>Pages 4-7, 16-19</p>
<p>SC.0.2.2.02 identify the structures of living things including their systems, and explain their functions (e.g., wings for flying, fins for swimming; roots for support and obtaining water).</p>	<p>New Plants Investigation 1, Part 3 Science Stories</p> <p>Insects Investigation 2, Parts 1-3 Investigation 4, Parts 2-5 Investigation 5, Parts 1-3 Investigation 6, Parts 1-3 Science Stories</p> <p>Insects and Plants Investigation 1, Parts 1-3 Investigation 2, Part 3 Investigation 5, Parts 1-3 Science Resources</p> <p>Plants and Animals Investigation 1, Parts 1-3 Investigation 2, Parts 1-3 Investigation 3, Part 3 Science Resources</p>	<p>Pages 23-30 Pages 4-7, 8-11, and 22-43</p> <p>Pages 8-24 Pages 14-31 Pages 10-24 Pages 8-22 Pages 8-11</p> <p>Pages 52-75 Pages 105-115 Pages 206-225 Pages 15-18, 30-33</p> <p>Pages 47-52 Pages 87-108 Pages 135-140 Pages 4-7, 16-19, 47-50</p>
<p>SC.0.2.2.03 sequence pictures of events to illustrate the changes in the life cycle of plants and animals.</p>	<p>Insects Investigation 1, Part 3 Investigation 2, Part 3 Investigation 3, Part 3 Investigation 4, Part 5 Investigation 5, Part 3 Science Stories</p> <p>Insects and Plants Investigation 1, Part 3 Investigation 3, Part 3 Investigation 4, Part 5 Investigation 5, Part 3 Science Resources</p>	<p>Pages 22-25 Pages 20-24 Pages 21-26 Pages 28-31 Pages 20-24 Pages 16-33</p> <p>Pages 71-75 Pages 145-151 Pages 187-191 Pages 219-225 Pages 37-55</p>
<p>SC.0.2.2.04 relate observations of the butterfly’s life cycle to student’s own growth and change.</p>	<p>Insects Investigation 5, Parts 1-3</p> <p>Insects and Plants Investigation 5, Parts 1-3</p>	<p>Pages 10-24</p> <p>Pages 206-225</p>
<p>SC.0.2.2.05 compare and contrast simple models of different kinds of habitats, including a forest and a stream</p>	<p>Insects Investigation 3, Part 2</p> <p>Insects and Plants Investigation 3, Part 2</p> <p>Plants and Animals Investigation 3, Parts 1-2</p>	<p>Pages 12-20</p> <p>Pages 134-144</p> <p>Pages 120-134</p>
<p>SC.0.2.2.06 identify materials as a solid, a liquid or a gas and recognize that matter takes up space, and can change from one state to another.</p>	<p>Solids and Liquids Investigation 1, Part 1 Investigation 2, Parts 1-3 Investigation 2, Science Extension Investigation 4, Science Extension Science Stories</p> <p>FOSS Web, Activity: Change It</p>	<p>Pages 8-16 Pages 10-27</p> <p>Page 31</p> <p>Page 29 Pages 3-23</p>

	Air and Weather Investigation 1, Parts 1-2, 4-5 Investigation 2, Science Extension Science Stories	Pages 8-16, 21-33 Page 32 Pages 3-6
SC.0.2.2.07 demonstrate that a magnet can attract or repel objects.	Solids and Liquids Investigation 3, Science Extension Balance and Motion Investigation 3, Science Extension Science Stories	Page 31 Page 28 Pages 18-21
SC.0.2.2.08 identify which materials and colors conduct heat better than others.		
SC.0.2.2.09 demonstrate that a shadow is cast when an object blocks light.		
SC.0.2.2.10 compare the effects of force on the motion of an object.	Balance and Motion Investigation 2, Parts 1-3 Investigation 3, Part 3 Science Stories FOSS Web, Activity: Roller Coaster Air and Weather Investigation 3, Part 3	Pages 8-25 Pages 19-25 Pages 10-17 and 20-21 Pages 7-21
SC.0.2.2.11 explore how sound can change in pitch and volume.	Balance and Motion Science Stories	Pages 32-35
SC.0.2.2.12 identify and examine changes in the earth's surface (e.g., weathering, erosion).	Pebbles, Sand and Silt Science Stories	Pages 10-16
SC.0.2.2.13 identify the effects of wind movement	Air and Weather Investigation 3, Parts 1-5 Science Stories	Pages 8-33 Page 16
SC.0.2.2.14 observe and describe different types of precipitation.	Air and Weather Investigation 2, Part 4 Investigation 2, Science Extension Science Stories	Pages 24-27 Page 32 Pages 8-9
SC.0.2.2.15 describe daily and seasonal weather changes.	Air and Weather Investigation 2, Parts 1-4 Investigation 4, Part 2 Science Stories	Pages 8-27 Pages 12-18 Pages 18-23
SC.0.2.2.16 explain how the rotation of the Earth on its axis causes day and night.		
SC.0.2.2.17 understand that the moon has phases.	Air and Weather Investigation 4, Part 3	Page 19-24
SC.0.2.2.18 describe how fossils are formed, and match a fossil, or a picture of a fossil, to its original organism.	Pebble, Sand and Silt Science Stories	Page 26-31

Standard 3: Application of Science (SC.S.2.3)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.2.3.01 identify parts of systems and identify how they interact with one another.	Balance and Motion Investigation 1, Parts 2-4 FOSS Web, Activity: Roller Coaster Air and Weather Investigation 1, Parts 3-6 Insects Science Stories New Plants Investigation 1, Part 3 Science Stories Insects and Plants Investigation 1, Parts 1-2 Science Resources Plants and Animals Investigation 3, Parts 1-2 Science Resources	Pages 14-28 Pages 17-38 Pages 12-15 Pages 23-30 Pages 5-7 and 12-15 Pages 52-70 Pages 30-31 Pages 120-134 Pages 4-7
SC.0.2.3.02 use models as representations of real things.	New Plants Investigation 2, Parts 1-2 Pebbles, Sand and Silt Investigation 3, Part 5 Air and Weather Investigation 1, Parts 3 and 6 Investigation 2, Part 2 Insects Investigation 3, Part 2 Insects and Plants Investigation 3, Parts 2-3 Plants and Animals Investigation 3, Parts 1-2	Pages 8-19 Pages 24-29 Pages 17-20 and 34-36 Pages 14-19 Pages 12-20 Pages 134-151 Pages 120-134
SC.0.2.3.03 observe that changes occur gradually, repetitively, or randomly within the environment.	Insects Investigation 1, Parts 1-3 Investigation 5, Parts 1-3 New Plants Investigation 3, Parts 1-3 Solids and Liquids Investigation 4, Parts 1-2 Air and Weather Investigation 4, Part 3 Insects and Plants Investigation 5, Parts 1-3 Plants and Animals Investigation 1, Parts 1-3	Pages 8-25 Pages 10-24 Pages 8-25 Pages 7-22 Pages 19-24 Pages 206-225 Pages 47-72
SC.0.2.3.04 recognize that common objects and events incorporate science (e.g., CD players, Velcro, weather) to solve human problems and enhance the quality of life.	Pebbles, Sand and Silt Investigation 3, Parts 1-2 and 4-5 Science Stories New Plants Science Stories Air and Weather Investigation 1, Part 3 Science Stories Balance and Motion Investigation 1, Part 4	Pages 8-15 and 20-39 Pages 16-21 Pages 16-21 Pages 17-20 Pages 5-6 Pages 24-28

	<p>Science Stories FOSS Web, Activity: Roller Coaster</p> <p>Plants and Animals Science Resources</p>	<p>Pages 10-17, 21-27 and 32-35</p> <p>Pages 9-14</p>
<p>SC.0.2.3.05 listen to and be tolerant of different viewpoints while working in collaborative groups</p>	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example:</p> <p>Solids and Liquids Investigation 4, Parts 1-3</p> <p>Balance and Motion Investigation 3, Parts 1-3</p> <p>New Plants Investigation 2, Parts 1-3</p> <p>Air and Weather Investigation 2, Parts 2-4</p> <p>Insects and Plants Investigation 3, Parts 1-3</p> <p>Plants and Animals Investigation 1, Parts 1-3</p>	<p>Pages 7-27</p> <p>Pages 6-25</p> <p>Pages 8-28</p> <p>Pages 14-27</p> <p>Pages 129-151</p> <p>Pages 47-52</p>
<p>SC.0.2.3.06 develop respect and responsibility for the environment by engaging in conservation practices (e.g., recycling, trash clean-up, power consumption reduction).</p>	<p>New Plants Investigation 1</p> <p>Insects and Plants Investigation 1, Part 1</p>	<p>Page 29</p> <p>Page 113</p>

Grade Three

Standard 1: Nature of Science (SC.S.3.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.3.1.01 recognize that scientific explanations may lead to new discoveries (e.g., new knowledge leads to new questions).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Magnetism and Electricity Science Stories FOSS Web, Movie: How a Light Bulb Works Ideas and Inventions Science Stories Physics of Sound Science Stories Sun, Moon and Stars Science Resources	Pages 10-13, 14-19 and 21-33 Pages 9, 11-16 and 17-22 Pages 32-35 Pages 44
SC.0.3.1.02 study the lives and discoveries of scientists of different cultures and backgrounds.	Water Science Stories Structures of Life Science Stories Magnetism and Electricity Science Stories Ideas and Inventions Science Stories Sun, Moon and Stars Science Resources	Pages 24-26 Pages 6-9 Pages 12-23 Pages 1-3 Pages 40, 44
SC.0.3.1.03 explore science careers in the community.	Measurement Science Stories Earth Materials Investigation 1, Science Extension Magnetism and Electricity Investigation 3, Science Extension	Pages 24-26 Page 32 Page 28
SC.0.3.1.04 demonstrate curiosity, initiative and creativity by planning and conducting simple investigations.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Structures of Life Investigation 3, Part 3 Measurement Investigation 2, Part 3 Water Investigation 3, Parts 2-3 Human Body Investigation 4, Parts 1-2 Sun, Moon and Stars Investigation 1, Parts 1-2 Matter and Energy Investigation 3, Part 2	Pages 20-23 Pages 18-24 Pages 12-20 Pages 8-19 Pages 42-64 Pages 139-150
SC.0.3.1.05 recognize that developing solutions to problems takes time, patience and persistence through individual and cooperative ventures.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Earth Materials Investigation 4, Part 1	Pages 8-18

	<p>Ideas and Inventions Investigation 2, Part 2</p> <p>Water Investigation 3, Parts 2-4</p> <p>Measurement Investigation 3, Part 3</p> <p>Sun, Moon and Stars Investigation 1, Parts 1-2</p> <p>Matter and Energy Investigation 2, Parts 1-2</p>	<p>Pages 16-19</p> <p>Pages 12-26</p> <p>Pages 18-21</p> <p>Pages 42-64</p> <p>Pages 93-114</p>
<p>SC.0.3.1.06 support statements with facts found through research from various sources, including technology.</p>	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example:</p> <p>Human Body Investigation 4, Part 4</p> <p>Physics of Sound Investigation 2, Language Extension Investigation 4, Part 2</p> <p>Magnetism and Electricity Investigation 3, Language Extension</p> <p>Earth Materials Investigation 4, Language Extension Investigation 4, Part 2</p> <p>Sun, Moon and Stars Investigation 2, Parts 1-2</p>	<p>Pages 25-29</p> <p>Page 25 Pages 16-20</p> <p>Page 27</p> <p>Page 19 Pages 14-18</p> <p>Pages 79-100</p>
<p>SC.0.3.1.07 use scientific instruments, technology, and everyday materials to investigate the natural world.</p>	<p>Measurement Investigation 1, Part 3 Investigation 2, Part 3 Investigation 3, Part 3 Investigation 4, Parts 2-3</p> <p>Earth Materials Investigation 1, Parts 1-3</p> <p>Magnetism and Electricity Investigation 1, Part 3</p> <p>Water Investigation 3, Parts 2-3</p> <p>Sun, Moon and Stars Investigation 1, Part 1</p> <p>Matter and Energy Investigation 3, Parts 2-3 Investigation 4, Part 1</p>	<p>Pages 20-24 Pages 18-24 Pages 18-21 Pages 14-21</p> <p>Pages 8-29</p> <p>Pages 23-29</p> <p>Pages 12-20</p> <p>Pages 42-55</p> <p>Pages 139-160 Pages 174-180</p>
<p>SC.0.3.1.08 use safe and proper techniques for handling, manipulating and caring for science materials (e.g., follow safety rules, maintain a clean work area, or treat living organisms humanely).</p>	<p>FOSS™ modules include a “Safety in the Classroom” section and provide specific cautions where appropriate. See for example:</p> <p>Structures of Life Investigation 3</p> <p>Magnetism and Electricity Investigation 2</p> <p>Water Investigation 2</p> <p>Sun, Moon and Stars</p>	<p>Page 9</p> <p>Page 10</p> <p>Page 10</p>

	Investigation 1, Part 1	Pages 50-51
SC.0.3.1.09 apply mathematical skills and use metric units in measurements.	Measurement Investigation 1, Part 3 Investigation 2, Part 3 Investigation 3, Parts 2-3 Investigation 4, Parts 2-3 Human Body Investigation 4, Parts 1-3 Water Investigation 4, Part 1 Structures of Life Investigation 1, Part 3 Matter and Energy Investigation 3, Parts 2-3	Pages 20-24 Pages 18-24 Pages 14-21 Pages 14-21 Pages 8-24 Pages 8-13 Pages 28-33 Pages 139-160
SC.0.3.1.10 interpret data presented in a table, graph, map or diagram and use it to answer questions and make predictions and inferences based on patterns of evidence.	Magnetism and Electricity Investigation 1, Part 3 Investigation 4, Part 2 Measurement Investigation 4, Part 2 Human Body Investigation 4, Parts 1-3 Earth Materials Investigation 2, Part 2 Water Investigation 4, Part 3 Sun, Moon and Stars Investigation 2, Part 2 Matter and Energy Investigation 3, Parts 2-3	Pages 23-29 Pages 14-18 Pages 14-17 Pages 8-24 Pages 14-21 Pages 19-23 Pages 89-100 Pages 139-160
SC.0.3.1.11 identify and control variables.	Magnetism and Electricity Investigation 4, Parts 2-3 Physics of Sound Investigation 2, Parts 2-3 Water Investigation 3, Parts 2-3 Investigation 4, Part 1 Structures of Life Investigation 1, Part 2	Pages 14-22 Pages 13-24 Pages 12-20 Pages 8-13 Pages 18-27

Standard 2: Content of Science (SC.S.3.2)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.3.2.01 identify the structures of living things, including their systems and explain their functions.	Structure of Life Investigation 2, Part 3 Investigation 3, Part 1 Investigation 4, Parts 1-2 Science Stories Human Body Investigation 1, Parts 1-3 Investigation 2, Parts 1-4 Investigation 3, Parts 1-3 Science Stories FOSS Web, Activity: Mr. Bones	Pages 18-22 Pages 8-15 Pages 8-19 Pages 1-3, 17 and 41-42 Pages 8-25 Pages 8-25 Pages 8-21 Pages 1-4, 10-16 and 28-29
SC.0.3.2.02 observe, measure and record changes in living things (e.g., growth and	Structures of Life Investigation 1, Parts 2-3 Investigation 2, Parts 1-3	Pages 18-33 Pages 8-22

development, variations within species).	FOSS Web, Activity: Life Cycles	
SC.0.3.2.03 compare physical characteristics and behaviors of living organisms and explain how they are adapted to a specific environment (e.g., beaks and feet in birds, seed dispersal, camouflage, or different types of flowers).	Structures of Life Investigation 3, Part 1 Investigation 4, Parts 1-2 Science Stories Human Body Science Stories	Pages 8-15 Pages 8-19 Pages 3, 17-18, 20-21 and 22-36 Pages 9 and 11
SC.0.3.2.04 observe and describe relationships among organisms and predict the effect of adverse factors.	Structures of Life Science Stories Water Science Stories	Pages 35-36 and 43 Pages 5-7
SC.0.3.2.05 relate the buoyancy of an object to its density.	Water Investigation 2, Parts 2-3 Investigation 2, Science Extension	Pages 14-24 Page 27
SC.0.3.2.06 identify physical and chemical properties.	Magnetism and Electricity Investigation 1, Part 1 Investigation 2, Parts 1-2 Earth Materials Investigation 3, Parts 1-2 Water Investigation 1, Parts 1-2 Measurement Science Stories Matter and Energy Investigation 4, Part 3 Science Resources	Pages 8-17 Pages 8-21 Pages 8-19 Pages 8-18 Pages 31-33 Pages 193-203 Pages 60-62
SC.0.3.2.07 relate changes in states of matter to changes in temperature.	Water Investigation 2, Part 3 Investigation 3, Parts 1-4 Science Stories FOSS Web, Activity: Evaporation Measurement Science Stories Matter and Energy Investigation 4, Part 2 Science Resources	Pages 19-24 Pages 8-26 Pages 13-15 Pages 32-33 Pages 181-192 Pages 54-56
SC.0.3.2.08 investigate the dissolving of solids in liquids	Earth Materials Investigation 1, Parts 2-3 Investigation 3, Parts 1-2	Pages 16-29 Pages 8-19
SC.0.3.2.09 investigate the reflection and refraction of light by objects.	Ideas and Inventions Investigation 4, Parts 1-3 Science Stories Matter and Energy Investigation 2, Parts 1-2 Science Resources	Pages 8-21 Pages 23-32 Pages 93-114 Pages 24-35
SC.0.3.2.10 relate how the color of an object is based upon the reflection of light.	Ideas and Inventions Science Stories Matter and Energy Investigation 2, Part 2 Science Resources	Pages 23-25 Pages 103-114 Pages 29-33
SC.0.3.2.11 recognize that it takes work to move objects over a	Water Investigation 4, Part 2	Pages 14-18

distance.		
SC.0.3.2.12 examine the relationship between speed, distance, and time.	Physics of Sound Science Stories FOSS Web, Activity: How Far Away is it?	Pages 19-20
SC.0.3.2.13 recognize that the greater a force is exerted on an object, the greater the change of its motion.	Water Investigation 4, Part 2	Pages 14-18
SC.0.3.2.14 identify examples of potential and kinetic energy.	Magnetism and Electricity Investigation 2, Part 1 Physics of Sound Science Stories	Pages 8-13 Pages 22-27
SC.0.3.2.15 identify fossils as a record of time.	Structures of Life Science Stories Human Body Science Stories Earth Materials Science Stories FOSS Web, Pictures	Pages 45-48 Pages 22-24 Page 4
SC.0.3.2.16 explore erosion of different materials by water and wind (e.g., sand, mud pile and rocks).	Earth Materials Science Stories	Pages 1-2, 5-7 and 35
SC.0.3.2.17 describe how volcanoes and earthquakes affect the earth.	Earth Materials Science Stories	Pages 5-7 and 34
SC.0.3.2.18 recognize the relative movement of the earth and moon in relation to the sun.	Ideas and Inventions Science Stories Sun, Moon and Stars Investigation 2, Part 2 Science Resources	Pages 33-36 Pages 89-100 Pages 19-24, 30-32
SC.0.3.2.19 describe the similarities and differences among the planets.	Sun, Moon and Stars Science Resources	Pages 16-17
SC.0.3.2.20 identify properties of minerals and recognize that rocks are composed of different minerals.	Earth Materials Investigation 1, Parts 1-3 Investigation 2, Parts 1-2 Investigation 3, Parts 1-2 Investigation 4, Part 1 Science Stories	Pages 8-29 Pages 8-21 Pages 8-19 Pages 8-13 Pages 2-3 and 30-37
SC.0.3.2.21 explain how igneous, sedimentary and metamorphic rocks are formed.	Earth Materials Science Stories	Pages 34-37
SC.0.3.2.22 identify geographical features using a model or map.		
SC.0.3.2.23 compare and contrast the layers of the Earth and their various features.		
Standard 3: Application of Science (SC.S.3.3)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.3.3.01 identify that systems are made of parts that interact with one another.	Magnetism and Electricity Investigation 4, Parts 1-3 Human Body	Pages 8-22

	Investigation 1, Parts 1-2 Ideas and Inventions Investigation 4, Parts 2-3 Water Investigation 4, Part 2 Sun, Moon and Stars Investigation 2, Part 2 Matter and Energy Investigation 1, Parts 1-3	Pages 8-20 Pages 14-21 Pages 14-18 Pages 89-100 Pages 50-82
SC.0.3.3.02 use models as representations of real things.	Human Body Investigation 3, Parts 1-3 Magnetism and Electricity Investigation 5, Parts 1-2 Water Investigation 2, Part 1 Investigation 4, Part 2 Earth Materials Investigation 1, Parts 1-2 Sun, Moon and Stars Investigation 2, Part 2 Investigation 3, Part 1	Pages 8-21 Pages 8-20 Pages 8-13 Pages 14-18 Pages 8-23 Pages 89-100 Pages 114-125
SC.03.3.03 observe that changes occur gradually, repetitively, or randomly within the environment and question causes of changes.	Structures of Life Investigation 2, Part 3 Water Investigation 2, Part 3 Measurement Investigation 4, Part 2 Ideas and Inventions Investigation 3, Parts 1-2 Sun, Moon and Stars Investigation 1, Parts 1-2 Investigation 2, Parts 1-3 Matter and Energy Investigation 4, Part 2	Pages 18-22 Pages 19-24 Pages 14-17 Pages 8-17 Pages 42-64 Pages 79-100 Pages 181-192
SC.0.3.3.04 given a set of objects, group or order the objects according to an established scheme.	Ideas and Inventions Investigation 2, Parts 1-2 Earth Materials Investigation 2, Parts 1-2 Magnetism and Electricity Investigation 1, Part 1 Investigation 3, Parts 1-2	Pages 8-19 Pages 8-21 Pages 8-17 Pages 10-21
SC.0.3.3.05 given a set of events, objects, shapes, designs, or numbers, formulate patterns of constancy or regularity.	Magnetism and Electricity Investigation 4, Parts 2-3 Ideas and Inventions Investigation 2, Part 1 Measurement Investigation 1, Part 3 Investigation 3, Part 3 Physics of Sound Investigation 2, Parts 2-3 Sun, Moon and Stars Investigation 1, Part 2	Pages 14-22 Pages 8-15 Pages 20-24 Pages 18-21 Pages 13-24 Pages 89-100
SC.0.3.3.06 cite examples of the uses of science and technology in common daily events and in the community.	Magnetism and Electricity Science Stories FOSS Web, Movie: How a Light Bulb Works Earth Materials	Pages 28-33

	<p>Science Stories Water Science Stories Physics of Sound Science Stories FOSS Web, Movie: MRI Section Matter and Energy Science Resources</p>	<p>Pages 24-29 Pages 18-20 Pages 12-13, 23-25 and 33-35 Pages 2-7, 9-11</p>
<p>SC.0.3.3.07 explain a simple problem and identify a specific solution describing the use of tools and/or materials to solve the problem or to complete the task.</p>	<p>Water Activity 4, Part 2 Ideas and Inventions Activity 3, Part 2 Activity 4, Parts 2-3 Magnetism and Electricity Activity 3, Part 3 Activity 5, Part 2 Measurement Activity 2, Part 3 Sun, Moon and Stars Investigation 1, Parts 1-2 Matter and Energy Investigation 3, Part 2</p>	<p>Pages 14-18 Pages 14-17 Pages 14-21 Pages 22-26 Pages 15-20 Pages 18-24 Pages 42-64 Pages 139-150</p>
<p>SC.0.3.3.08 recognize that a solution to one scientific problem often creates new problems (e.g., recycling, pollution, conservation, waste disposal).</p>	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Water Science Stories Physics of Sound Science Stories Measurement Science Stories</p>	<p>Pages 17-21 and 23 Pages 23-25 and 35 Pages 16-17</p>
<p>SC.03.3.09 listen to and be tolerant of different viewpoints by engaging in collaborative activities and be willing to modify ideas when new and valid information is presented.</p>	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Magnetism and Electricity Activity 3, Part 3 Water Activity 4, Part 2 Ideas and Inventions Activity 4, Parts 2-3 Measurement Activity 2, Part 3 Sun, Moon and Stars Investigation 1, Parts 1-2 Matter and Energy Investigation 3, Parts 2-3</p>	<p>Pages 22-26 Pages 14-18 Pages 14-21 Pages 18-24 Pages 42-64 Pages 139-160</p>
<p>SC.0.3.3.10 develop respect and responsibility for the environment by engaging in conservation practices.</p>	<p>Water Science Stories Measurement Science Stories</p>	<p>Page 21 Pages 16-17</p>
<p>SC.0.3.3.11 describe how modern tools and appliances have positively and/or negatively impacted their daily lives.</p>	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Water Science Stories Ideas and Inventions Science Stories</p>	<p>Pages 17-21 Pages 17-22</p>

	Magnetism and Electricity Science Stories	Pages 12-19 and 28-33
	Measurement Science Stories	Pages 22-23
	Sun, Moon and Stars Science Resources	Pages 40-43

Grade Four

Standard 1: Nature of Science (SC.S.4.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.4.1.01 explain how new discoveries lead to changes in scientific knowledge.	Magnetism and Electricity Science Stories FOSS Web, Movie: How a Light Bulb Works Ideas and Inventions Science Stories Physics of Sound Science Stories Sun, Moon and Stars Science Resources	Pages 10-13, 14-19 and 21-31 Pages 9, 11-16 and 17-21 Pages 32-35 Page 44
SC.0.4.1.02 study the lives and discoveries of scientists of different cultures and backgrounds.	Water Science Stories Structure of Life Science Stories Magnetism and Electricity Science Stories Ideas and Inventions Science Stories Sun, Moon and Stars Science Resources	Pages 24-26 Pages 6-9 Pages 12-23 Pages 1-3 Pages , 40, 44
SC.0.4.1.03 explore science careers in West Virginia.	Measurement Science Stories Earth Materials Investigation 1, Science Extension Magnetism and Electricity Investigation 3, Science Extension	Pages 24-26 Page 32 Page 28
SC.0.4.1.04 demonstrate curiosity, initiative and creativity by developing questions that lead to investigations; designing simple experiments; and trusting observations of discoveries when trying new tasks and skills.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Structure of Life Investigation 3, Part 3 Measurement Investigation 2, Part 3 Water Investigation 3, Parts 2-3 Human Body Investigation 4, Parts 1-2 Sun, Moon and Stars Investigation 1, Parts 1-2 Matter and Energy Investigation 3, Part 2	Pages 20-23 Pages 18-24 Pages 12-20 Pages 8-19 Pages 42-64 Pages 139-150
SC.0.4.1.05 recognize that developing solutions to problems requires persistence, flexibility, open-mindedness, and alertness for the unexpected.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Earth Materials Investigation 4, Part 1 Ideas and Inventions Investigation 2, Part 2 Water	Pages 8-18 Pages 16-19

	<p>Investigation 3, Parts 2-4 Measurement Investigation 3, Part 3 Sun, Moon and Stars Investigation 2, Parts 1-2 Matter and Energy Investigation 2, Parts 1-2</p>	<p>Pages 16-26 Pages 18-21 Pages 79-100 Pages 93-114</p>
<p>SC.0.4.1.06 support statements with facts found through research from various sources, including technology.</p>	<p>Human Body Investigation 4, Part 4 Physics of Sound Investigation 2, Language Extension Investigation 4, Part 2 Magnetism and Electricity Investigation 3, Language Extension Earth Materials Investigation 4, Language Extension Investigation 4, Part 2 Sun, Moon and Stars Investigation 2, Parts 1-2</p>	<p>Pages 25-29 Page 25 Pages 16-20 Page 27 Page 19 Pages 14-18 Pages 79-100</p>
<p>SC.0.4.1.07 use scientific instruments, technology and everyday materials to investigate the natural world.</p>	<p>Measurement Investigation 1, Part 3 Investigation 2, Part 3 Investigation 3, Part 3 Investigation 4, Parts 2-3 Earth Materials Investigation 1, Parts 1-3 Magnetism and Electricity Investigation 1, Part 3 Water Investigation 3, Parts 2-3 Sun, Moon and Stars Investigation 1, Part 1 Matter and Energy Investigation 3, Parts 2-3</p>	<p>Pages 20-24 Pages 18-24 Pages 18-21 Pages 14-21 Pages 8-29 Pages 23-29 Pages 12-20 Pages 42-55 Pages 139-160</p>
<p>SC.0.4.1.08 demonstrate safe and proper techniques for handling, manipulating and caring for science materials.</p>	<p>FOSS™ modules include a “Safety in the Classroom” section and provide specific cautions where appropriate. See for example: Structures of Life Investigation 3 Magnetism and Electricity Investigation 2 Water Investigation 2 Sun, Moon and Stars Investigation 1, Part 1</p>	<p>Page 9 Page 10 Page 10 Pages 50-51</p>
<p>SC.0.4.1.09 construct a hypothesis when provided a problem.</p>	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Magnetism and Electricity Investigation 4, Parts 2-3 Water</p>	<p>Pages 14-22</p>

	Investigation 1, Part 3 Physics of Sound Investigation 2, Parts 2-3	Pages 19-23 Pages 13-24
SC.0.4.1.10 establish variables and controls in an experiment; test variables through experimentation	Magnetism and Electricity Investigation 4, Part 3 Water Investigation 1, Part 3 Investigation 3, Parts 2-3 Physics of Sound Investigation 2, Parts 2-3	Pages 19-22 Pages 19-23 Pages 12-20 Pages 13-24
SC.0.4.1.11 interpret data presented in a table, graph, or diagram and use it to answer questions and make decisions.	Magnetism and Electricity Investigation 4, Part 2 Measurement Investigation 4, Part 2 Human Body Investigation 4, Parts 1-3 Earth Materials Investigation 2, Part 2 Water Investigation 4, Part 3 Sun, Moon and Stars Investigation 2, Part 2 Matter and Energy Investigation 3, Parts 2-3	Pages 14-18 Pages 14-17 Pages 8-24 Pages 14-21 Pages 19-23 Pages 89-100 Pages 139-160
SC.0.4.1.12 draw and support conclusions, make predictions and inferences based on patterns of evidence (e.g., weather maps, variation of plants, or frequency and pitch of sound).	Magnetism and Electricity Investigation 4, Part 2 Ideas and Inventions Investigation 2, Part 2 Investigation 3, Part 2 Measurement Investigation 4, Part 2 Physics of Sound Investigation 2, Parts 2-3 Sun, Moon and Stars Investigation 1, Parts 1-2	Pages 14-18 Pages 16-19 Pages 14-17 Pages 14-17 Pages 13-24 Pages 42-64
SC.0.4.1.13 apply mathematical skills and use metric units in measurements and calculations.	Measurement Investigation 1, Part 3 Investigation 2, Part 3 Investigation 3, Parts 2-3 Investigation 4, Parts 2-3 Human Body Investigation 4, Parts 1-3 Structures of Life Investigation 1, Part 3 Water Investigation 4, Part 1 Matter and Energy Investigation 3, Parts 2-3	Pages 20-24 Pages 18-24 Pages 14-21 Pages 14-21 Pages 8-24 Pages 28-33 Pages 8-13 Pages 139-160
Standard 2: Content of Science (SC.S.4.2)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.4.2.01 describe the different characteristics of plants and animals which help them to survive in different niches and	Structures of Life Investigation 3, Part 1 Investigation 4, Parts 1-2 Science Stories	Pages 8-15 Pages 8-19 Pages 3, 17-18, 23-32 and 37-38

environments.	Human Body Science Stories	Pages 1-3 and 10-11
SC.40.4.2.02 associate the behaviors of living organisms to external and internal influences (e.g., hunger, climate, seasons).	Structures of Life Investigation 3, Part 3 Investigation 4, Part 1-2 Science Stories Human Body Science Stories	Pages 20-23 Pages 8-19 Pages 24-32 and 34-36 Page 9
SC.0.4.2.03 identify and classify variations in structures of living things including their systems and explain their functions (e.g., skeletons, teeth, plant needles, leaves).	Structures of Life Investigation 1, Parts 1-2 Investigation 2, Part 1 Investigation 4, Part 2 Science Stories Human Body Investigation 1, Part 3 Investigation 2, Part 4 Science Stories	Pages 8-27 Pages 8-13 Pages 14-19 Pages 17-18 and 20-21 Pages 21-25 Pages 23-25 Page 11
SC.0.4.2.04 compare and sequence changes in cycles in relation to plant and animal life.	Structures of Life Investigation 2, Part 3 Science Stories FOSS Web, Activity: Life Cycles	Pages 18-22 Pages 20-21
SC.0.4.2.05 give examples how plants and animals closely resemble their parents and that some characteristics are inherited from the parents and others result from interaction with the environment.	Structures of Life Science Stories	Pages 20-21
SC.0.4.2.06 identify human uses of plants and animals (e.g., food sources, medicines).	Human Body Science Stories Structures of Life Investigation 1, Social Studies Extension Investigation 2, Social Studies Extension Science Stories	Page 25 Page 35 Page 24 Pages 4-5 and 10-11
SC.0.4.2.07 describe the effects of altering environmental barriers on the migration of animals.		
SC.0.4.2.08 construct and explain models of habitats, food chains, and food webs.	Structures of Life Investigation 3, Part 2 Science Stories	Pages 16-19 Page 43
SC.0.4.2.09 investigate how properties can be used to identify substances.	Earth Materials Investigation 2, Parts 1-2 Investigation 3, Parts 1-2 Investigation 4, Part 1 Science Stories Ideas and Inventions Investigation 2, Part 2 Investigation 3, Part 2	Pages 8-21 Pages 8-19 Pages 8-13 Pages 30-33 Pages 16-19 Pages 14-17
SC.0.4.2.10 design an experiment to investigate the dissolving of solids and analyze the results.	Earth Materials Investigation 1, Parts 2-3 Investigation 3, Parts 1-2	Pages 16-29 Pages 8-19
SC.0.4.2.11 examine simple	Earth Materials	

chemical changes (e.g., tarnishing, rusting, or burning).	Investigation 3, Parts 1-2 Matter and Energy Investigation 4, Part 3 Science Resources	Pages 31-33 Pages 193-203 Pages 60-62
SC.0.4.2.12 explain that materials including air, take up space and are made of parts that are too small to be seen without magnification.	Measurement Science Stories Earth Materials Investigation 1, Parts 1-3 Investigation 3, Parts 1-2 Water Investigation 3, Parts 1-4 Matter and Energy Investigation 4, Part 2 Science Resources	Pages 30-31 Pages 8-29 Pages 8-19 Pages 8-26 Pages 181-192 Pages 57-59
SC.0.4.2.13 differentiate changes in states of matter due to heat loss or gain.	Water Investigation 3, Parts 1-4 Science Stories Measurement Science Stories Matter and Energy Investigation 4, Part 2 Science Resources	Pages 8-26 Pages 13-16 Pages 32-33 Pages 181-192 Pages 54-56
SC.0.4.2.14 investigate variables that affect the rate of evaporation of a liquid.	Water Investigation 3, Parts 1-3	Pages 8-20
SC.0.4.2.15 compare and classify liquids based on density.	Water Investigation 2, Parts 2-3 Investigation 2, Science Extension	Pages 14-24 Page 27
SC.0.4.2.16 identify different forms of energy and describe energy transformations that occur between them (e.g., electrical to heat, or radiant to chemical).	Physics of Sound Investigation 1, Parts 1-3 Investigation 2, Parts 1-3 Investigation 3, Parts 1-2 Science Stories Magnetism and Electricity Investigation 1, Parts 1-4 Investigation 2, Parts 1-2 Investigation 3, Parts 1-3 Investigation 4, Parts 1-3 Science Stories FOSS Web, Activity: Electro-Magnet Matter and Energy Investigation 1, Parts 1-3	Pages 8-29 Pages 8-24 Pages 8-19 Pages 1-28 Pages 8-34 Pages 8-19 Pages 10-26 Pages 8-22 Pages 1-13, 21-23 and 28-33 Pages 50-82
SC.0.4.2.17 examine types and properties of waves (e.g., transverse, longitudinal, frequency, wavelengths).	Physics of Sound Investigation 3, Parts 1-2 Science Stories	Pages 8-19 Pages 17-18
SC.0.4.2.18 investigate static electricity and conductors/nonconductors of electricity.	Magnetism and Electricity Investigation 2, Part 3 Science Stories	Pages 20-25 Pages 10-13
SC.0.4.2.19 construct simple electrical circuits.	Magnetism and Electricity Investigation 2, Parts 1-4 Investigation 3, Parts 1-3 Matter and Energy	Pages 8-29 Pages 10-26

	Investigation 1, Parts 1, 3	Pages 50-62, 71-82
SC.0.4.2.20 describe and explain the relationship between a compass and a magnetic field.	Magnetism and Electricity Investigation 1, Science Extension Science Stories	Page 36 Pages 6-9
SC.0.4.2.21 relate motion of an object to its frame of reference.	Water Investigation 4, Part 2 Human Body Investigation 3, Parts 1-3	Pages 14-18 Pages 8-21
SC.0.4.2.22 predict and investigate the motion of an object if the applied force is changed.	Water Investigation 4, Part 2	Pages 14-18
SC.0.4.2.23 explore that sounds are produced by vibrating objects and columns of air and explore the relationship between frequency and pitch of sound.	Physics of Sound Investigation 1, Part 3 Investigation 2, Parts 1-3 Investigation 3, Parts 1-2 Science Stories	Pages 21-29 Pages 8-24 Pages 8-19 Pages 6-9 and 11-16
SC.0.4.4.24 explore the change in the length, tension, or thickness of the vibrating object on the frequency of vibration (e.g., string, wire, rubber band).	Physics of Sound Investigation 2, Parts 1-3 Science Stories	Pages 8-24 Pages 11-13 and 15-16
SC.0.4.2.25 examine the geologic time scale.		
SC.0.4.2.26 locate and identify patterns of stars and their change in location throughout the year.	Ideas and Inventions Science Stories Sun, Moon and Stars Investigation 3, Parts 1-2 Science Resources	Page 37 Pages 114-130 Pages 48-49
SC.0.4.2.27 compare and explain the relative time differences to erode materials.		
SC.0.4.2.28 investigate the cause and effects of volcanoes, earthquakes and landslides.	Earth Materials Science Stories	Pages 5-7 and 34
SC.0.4.2.29 interpret a weather chart or map and predict outcomes.		
SC.0.4.2.30 identify the sun as a star.	Sun, Moon and Stars Science Resources	Page 15
SC.0.4.4.31 explain the effects of alignment of earth, moon and sun on the earth.	Ideas and Inventions Science Stories Sun, Moon and Stars Investigation 2, Part 2 Science Resources	Pages 33-36 Pages 89-100 Pages 19-24, 30-32
SC.0.4.2.32 describe and explain the planets orbital paths.	Sun, Moon and Stars Science Resources	Pages 16-17
SC.0.4.2.33 differentiate between types of rock and describe the rock cycle.	Earth Materials Science Stories	Pages 34-36
SC.0.4.2.34 compare ocean water and fresh water.	Water Science Stories	Page 1
SC.0.4.2.35 investigate soil types and soil composition.		

Standard 3: Application of Science (SC.S.4.3)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.4.3.01 identify that systems are made of parts that interact with one another.	Magnetism and Electricity Investigation 4, Parts 1-3 Human Body Investigation 1, Parts 1-2 Ideas and Inventions Investigation 4, Parts 2-3 Water Investigation 4, Part 2 Sun, Moon and Stars Investigation 2, Part 2 Science Resources Matter and Energy Investigation 1, Parts 1-3	Pages 8-22 Pages 8-20 Pages 14-21 Pages 14-18 Pages 89-100 Pages 3, 20-23, 30-32 Pages 50-82
SC.O.4.3.02 create models as representations of real things.	Human Body Investigation 3, Parts 1-3 Magnetism and Electricity Investigation 5, Parts 1-2 Water Investigation 2, Part 1 Investigation 4, Part 2 Earth Materials Investigation 1, Parts 1-2 Sun, Moon and Stars Investigation 2, Part 2 Investigation 3, Part 1	Pages 8-21 Pages 8-20 Pages 8-13 Pages 14-18 Pages 8-23 Pages 89-100 Pages 114-125
SC.0.4.3.03 observe that changes occur gradually, repetitively, or randomly within the environment and question causes of changes.	Structures of Life Investigation 2, Part 3 Water Investigation 2, Part 3 Measurement Investigation 4, Part 2 Ideas and Inventions Investigation 3, Part 1-2 Sun, Moon and Stars Investigation 1, Parts 1-2 Investigation 2, Part 2 Matter and Energy Investigation 4, Part 2	Pages 18-22 Pages 19-24 Pages 14-17 Pages 8-17 Pages 42-64 Pages 89-100 Pages 181-192
SC.0.4.3.04 given a set of objects, group or order the objects according to an established scheme.	Ideas and Inventions Investigation 2, Parts 1-2 Earth Materials Investigation 2, Parts 1-2 Magnetism and Electricity Investigation 1, Part 1 Investigation 3, Parts 1-2	Pages 8-19 Pages 8-21 Pages 8-17 Pages 10-21
SC.0.4.3.05 given a set of events, objects, shapes, designs, or numbers, find patterns of constancy or regularity.	Magnetism and Electricity Investigation 4, Parts 2-3 Ideas and Inventions Investigation 2, Part 1 Measurement Investigation 1, Part 3 Investigation 3, Part 3 Physics of Sound	Pages 14-22 Pages 8-15 Pages 20-26 Pages 18-21

	Investigation 2, Part 2-3 Sun, Moon and Stars Investigation 1, Parts 1-2 Investigation 2, Part 2	Pages 13-24 Pages 42-64 Pages 89-100
SC.0.4.3.06 identify and explain a simple problem or task to be completed; identify a specific solution; and list task requirements.	Water Investigation 4, Part 2 Ideas and Inventions Investigation 3, Part 2 Investigation 4, Parts 2-3 Magnetism and Electricity Investigation 3, Part 3 Investigation 5, Part 2 Measurement Investigation 2, Part 3 Matter and Energy Investigation 3, Part 2	Pages 14-18 Pages 14-17 Pages 14-21 Pages 22-26 Pages 15-20 Pages 18-24 Pages 139-150
SC.0.4.3.07 use an appropriate engineering design to solve a problem or complete a task.	Water Investigation 4, Part 2 Magnetism and Electricity Investigation 5, Part 2	Pages 14-18 Pages 15-20
SC.0.4.3.08 recognize that a solution to one scientific problem often creates new problems (e.g., recycling, pollution, conservation, waste disposal, need for technology).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Water Science Stories Physics of Sound Science Stories Measurement Science Stories	Pages 17-21 and 23 Pages 23-25 and 35 Pages 16-17
SC.0.4.3.09 listen to and be tolerant of different viewpoints by engaging in collaborative activities and modifying ideas when new and valid information is presented from a variety of resources.	Magnetism and Electricity Investigation 3, Part 3 Water Investigation 4, Part 2 Ideas and Inventions Investigation 4, Parts 2-3 Measurement Investigation 2, Part 3 Sun, Moon and Stars Investigation 1, Parts 1-2 Matter and Energy Investigation 2, Parts 1-2	Pages 22-26 Pages 14-18 Pages 14-21 Pages 18-24 Pages 42-62 Pages 93-114
SC.0.4.3.10 describe the positive and negative consequences of the application of technology on personal health and the environment.	Physics of Sound Science Stories Water Science Stories Human Body Science Stories Earth Materials Science Stories	Pages 32-35 Pages 17-21 Pages 5-7 Pages 24-29
SC.0.4.3.11 develop respect and responsibility for the environment by engaging in conservation practices.	Water Science Stories Measurement Science Stories	Page 21 Pages 16-17

Grade Five

Standard 1: Nature of Science (SC.S.5.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.5.1.01 realize that scientists formulate and test their explanations of nature using observation and experiments.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Variables Science Stories Food and Nutrition Science Stories Landforms Science Stories Water Planet Investigation 2, Parts 2-3 Living Systems Investigation 2, Part 1	Pages 12-14 and 34-37 Pages 24-25 and 34-36 Pages 13-14 Pages 86-100 Pages 85-98
SC.0.5.1.02 recognize scientific knowledge is subject to modification as new scientific information challenges current explanations.	Models and Designs Science Stories Food and Nutrition Science Stories Mixtures and Solutions Science Stories Variables Science Stories	Pages 4-10 Pages 24-25 and 34-36 Pages 32-36 Pages 4-5
SC.0.5.1.03 examine the careers and contributions of men and women of diverse cultures to the development of science	Solar Energy Science Stories Food and Nutrition Science Stories Mixtures and Solutions Science Stories Models and Designs Science Stories Variables Science Stories Water Planet Science Resources	Page 34 Pages 24-26 Pages 5, 9-10, 33 and 35-36 Pages 4-10 Pages 4-6 and 12-14 Pages 15, 18-19
SC.0.5.1.04 compare and contrast the historical significance of scientific discoveries.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Food and Nutrition Science Stories Models and Designs Science Stories Variables Science Stories Water Planet Science Resources	Pages 24-26 Pages 4-10 Pages 4-5 and 12-14 Page 96
SC.0.5.1.05 cooperate and collaborate to ask questions, design and conduct investigations to find answers and solve problems.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Solar Energy Investigation 4, Parts 1-3 Environments Investigation 5, Parts 1-3	Pages 8-28 Pages 8-22

	<p>Landforms Investigation 3, Parts 1-3</p> <p>Mixtures and Solutions Investigation 2, Parts 1-4</p> <p>Water Planet Investigation 3, Part 1</p> <p>Living Systems Investigation 3, Part 3</p>	<p>Pages 8-24</p> <p>Pages 8-28</p> <p>Pages 125-135</p> <p>Pages 136-141</p>
SC.0.5.1.06 formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection.	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example:</p> <p>Variables Investigation 3, Parts 2 –3</p> <p>Levers and Pulleys Investigation 4, Parts 1-2</p> <p>Environments Investigation 2, Parts 2-4</p> <p>Models and Designs Investigation 2, Parts 1-2</p> <p>Water Planet Investigation 3, Part 1</p> <p>Living Systems Investigation 3, Part 3</p>	<p>Pages 14-23</p> <p>Pages 8-20</p> <p>Pages 16-30</p> <p>Pages 8-21</p> <p>Pages 125-135</p> <p>Pages 136-141</p>
SC.0.5.1.07 apply skepticism, careful methods, logical reasoning and creativity in investigating the observable universe.	<p>FOSS™ investigations provide the opportunity to accomplish this objective. See for example:</p> <p>Mixtures and Solutions Investigation 4, Parts 1-3</p> <p>Variables Investigation 1, Parts 1-3</p> <p>Models and Designs Investigation 2, Parts 1-2</p> <p>Environments Investigation 4, Parts 1-3</p> <p>Water Planet Investigation 2, Parts 2-3</p> <p>Living Systems Investigation 2, Part 1</p>	<p>Pages 8-24</p> <p>Pages 8-27</p> <p>Pages 8-21</p> <p>Pages 8-22</p> <p>Pages 86-100</p> <p>Pages 85-98</p>
SC.0.5.1.08 use a variety of technologies and scientific instruments to conduct explorations, investigations and experiments of the natural world	<p>Levers and Pulleys Investigation 1, Parts 1-3 Investigation 3, Parts 1-3</p> <p>Solar Energy Investigation 2, Parts 1-2 Investigation 3, Parts 1-2</p> <p>Landforms Investigation 3, Parts 1-3</p> <p>Mixtures and Solutions Investigation 1, Parts 1-2</p> <p>Water Planet Investigation 3, Part 1</p> <p>Living Systems Investigation 3, Part 3</p>	<p>Pages 8-28 Pages 8-24</p> <p>Pages 8-23 Pages 8-23</p> <p>Pages 8-24</p> <p>Pages 8-20</p> <p>Pages 125-135</p> <p>Pages 136-141</p>
SC.0.5.1.09 demonstrate safe techniques for handling, manipulating and caring for science materials, equipment, natural specimens and living	<p>FOSS™ modules include a “Safety in the Classroom” section and provide specific cautions where appropriate. See for example:</p>	

organisms.	Variable Investigation 4 Mixtures and Solutions Investigation 4 Models and Designs Investigation 2 Water Planet Investigation 1	Page 13 Page 21 Page 11 Page 62
SC.0.5.1.10 utilize experimentation to demonstrate scientific processes and thinking skills (e.g., formulating questions, predicting, forming hypotheses, quantifying, identifying dependent and independent variables).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Environment Investigation 2, Parts 2-4 Investigation 5, Parts 1-3 Landforms Investigation 3, Parts 1-3 Variables Investigation 3, Parts 2-3 Investigation 4, Parts 2-3	Pages 16-30 Pages 8-22 Pages 8-24 Pages 14-23 Pages 12-23
SC.0.5.1.11 construct and use charts, graphs and tables to organize, display, interpret, analyze and explain data.	Variables Investigation 1, Parts 2-3 Investigation 3, Part 4 Levers and Pulleys Investigation 1, Parts 2-3 Food and Nutrition Investigation 2, Parts 2-3 Solar Energy Investigation 2, Parts 1-2 Water Planet Investigation 3, Part 1 Living Systems Investigation 2, Part 1	Pages 16-27 Pages 24-27 Pages 18-28 Pages 18-25 Pages 8-24 Pages 125-135 Pages 85-98
SC.0.5.1.12 use inferential reasoning to make logical conclusions from collected data.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Variables Investigation 1, Parts 2-3 Investigation 3, Part 4 Levers and Pulleys Investigation 4, Parts 1-2 Environments Investigation 2, Parts 2-4 Models and Designs Investigation 2, Parts 1-2 Water Planet Investigation 3, Part 1 Living Systems Investigation 3, Part 3	Pages 16-27 Pages 24-27 Pages 8-20 Pages 16-30 Pages 8-21 Pages 125-135 Pages 136-141
Standard 2: Content of Science (SC.S.5.2)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.5.2.01 demonstrate an understanding of the interconnections of biological, earth and space, and physical	Landforms Science Stories Environments Science Stories	Pages 13-14 Pages 36-37 and 49-52

science concepts.	Mixtures and Solutions Science Stories Food and Nutrition Science Stories Water Planet Investigation 3, Part 2 Science Resources	Pages 11-12 and 20-22 Pages 41-43 Pages 136-144 Pages 46-51
SC.0.5.2.02 identify and explain common energy conversions in cycles of matter including photosynthesis and carbon dioxide cycle.	Environments Science Stories FOSS Web, Pictures: Oxygen Cycle, Carbon Cycle, Nitrogen Cycle Food and Nutrition Science Stories Living Systems Investigation 3, Part 1 Science Resources	Page 39 Pages 42-43 Pages 118-125 Pages 31-34, 47
SC.0.5.2.03 identify the structures of living organisms and explain their function.	Environments Science Stories Food and Nutrition Science Stories Living Systems Investigation 1, Parts 1-3 Investigation 2, Part 1 Science Resources	Pages 9-22 and 42 Pages 6-8 and 44-50 Pages 51-70 Pages 85-98 Pages 2-13, 16-20
SC.0.5.2.04 observe and identify cells of organisms using a microscope.	Food and Nutrition Science Stories	Pages 42, 45 (pictures)
SC.0.5.2.05 compare variations of plant growth and reproduction.	Environments Investigation 1, Parts 1-2 Investigation 3, Parts 1-3 Investigation 6, Parts 1-2 Science Stories	Pages 8-19 Pages 8-22 Pages 8-17 Pages 47-48
SC.0.5.2.06 contrast how the different characteristics of plants and animals help them to survive in different niches and environments including adaptations, natural selection, extinction.	Environments Investigation 3, Parts 1-3 Investigation 4, Parts 1-3 Investigation 5, Parts 1-3 Science Stories	Pages 8-22 Pages 8-22 Pages 8-22 Pages 3-7, 9-22, 43-45 and 49-55
SC.0.5.2.07 through the use of research and technology, explore the extinction of a species due to environmental conditions.	Environments Science Stories	Pages 8 and 51-52
SC.0.5.2.08 trace and describe the pathways of the sun's energy through producers, consumers and decomposers using food webs and pyramids.	Environments Science Stories Living Systems Investigation 3, Part 1-2 Science Resources	Pages 38-41, 45 and 53 Pages 118-135 Pages 31-36, 47-48
SC.0.5.2.09 explain that the mass of a material is conserved whether it is together, in parts, or in a different state.	Mixtures and Solutions Investigation 1, Part 2	Pages 16-20
SC.0.5.2.10 recognize that elements are composed of only one type of matter.	Mixtures and Solutions Science Stories	Pages 3-6 and 25-28
SC.0.5.2.11 using the periodic	Mixtures and Solutions	

table, identify common elements according to their symbols.	Science Stories	Pages 32-36
SC.0.5.2.12 through experimentation, identify substances by their relative densities (mass/volume=density).	Variables Investigation 2, Parts 1-2 Science Stories	Pages 8-18 Pages 10-11
SC.0.5.2.13 analyze diagrams of electrical circuits.	See grade 4 module <u>Magnetism and Electricity</u> and grade 6 module <u>Electronics</u> .	
SC.0.5.2.14 measure electricity using voltage and wattage.	See grade 4 module <u>Magnetism and Electricity</u> and grade 6 module <u>Electronics</u> .	
SC.0.5.2.15 investigate the properties of an electromagnet by selecting appropriate materials, designing and testing an electromagnet, and evaluating differences in design.	See grade 4 module <u>Magnetism and Electricity</u> .	
SC.0.5.2.16 describe how the variables of gravity and friction affect the motion of objects.	Levers and Pulleys Investigation 1, Parts 2-3 Models and Designs Investigation 3, Parts 1-3 Variables Investigation 1, Parts 1-2 Water Planet Investigation 1, Part 2 Science Resources	Pages 18-28 Pages 8-23 Pages 8-22 Pages 59-66 Pages 16-17
SC.0.5.2.17 compare and contrast the change in length, tension, or thickness of a vibrating object on the frequency of vibration.	See grade 4 module <u>Physics of Sound</u> .	
SC.0.5.2.18 describe the layers of the earth and their various features.	Landforms Science Stories	Pages 22-24
SC.0.5.2.19 identify and describe natural landforms, how they change and impact weather and climate.	Landforms Investigation 2, Parts 1-2 Investigation 3, Parts 1-3 Science Stories FOSS Web, Activity: Jigsaw Puzzle FOSS Web, Pictures	Pages 8-22 Pages 8-24 Pages 15-17 and 22-29
SC.0.5.2.20 use a variety of instruments and sources to collect and display weather data to describe weather patterns.		
SC.0.5.2.21 compare and explain the different rates of weathering, erosion and deposition in various materials.	Landforms Investigation 2, Parts 1-2 Investigation 3, Parts 1-3	Pages 8-22 Pages 8-24
SC.0.5.2.22 analyze a topographical map to make inferences related to elevation and land features.	Landforms Investigation 4, Parts 1-3 Investigation 5, Parts 1-3 Science Stories	Pages 8-24 Pages 8-26 Pages 33-34
SC.0.5.2.23 identify resources as being renewable or non-	Solar Energy Science Stories	Pages 29-31 and 38-39

renewable.	FOSS Web, Activity: Resource Identification	
SC.0.5.2.24 explore and explain how fossils and geologic features can be used to determine the relative age of rocks and rock layers.	Models and Designs Science Stories	Pages 11-13
SC.0.5.2.25 recognize that the Earth is made of plates (plate tectonics).	Landforms Science Stories	Pages 22-23
Standard 3: Application of Science (SC.S.5.3)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.5.3.01 explore the relationship between the parts of a system to the whole system	Levers and Pulleys Investigation 4, Parts 1-2 Environments Investigation 4, Parts 1-3 FOSS Web, Activity: Virtual Aquarium Models and Designs Investigation 2, Parts 1-2 Variables Investigation 3, Parts 1-2 Living Systems Investigation 1, Parts 1-3 Science Resources Water Planet Investigation 1, Part 1 Science Resources	Pages 8-20 Pages 8-22 Pages 8-21 Pages 8-19 Pages 51-70 Pages 2-13 Pages 50-58 Pages 1-13
SC.0.5.3.02 construct a variety of useful models of an object, event, or process.	Solar Energy Investigation 4, Parts 1-3 Landforms Investigation 3, Parts 1-3 Models and Designs Investigation 1, Parts 2-3 Investigation 2, Parts 1-2 Variables Investigation 3, Part 1 Investigation 4, Part 1 Water Planet Investigation 1, Part 1	Pages 8-28 Pages 8-24 Pages 18-25 Pages 8-21 Pages 8-13 Pages 8-11 Pages 50-58
SC.0.5.3.03 compare and contrast changes that occur in an object or a system to its original state.	Environments Investigation 4, Parts 1-3 Investigation 5, Parts 1-3 Solar Energy Investigation 3, Parts 1-2 Landforms Investigation 3, Parts 1-3 Mixtures and Solutions Investigation 4, Parts 1-3 Living Systems Investigation 2, Part 1 Water Planet Investigation 2, Parts 2-3	Pages 8-22 Pages 8-22 Pages 8-23 Pages 8-24 Pages 8-24 Pages 85-98 Pages 86-100
SC.0.5.3.04 compare and	Environment	

contrast the influence that a variation in scale will have on the way an object or system works. (e.g., cooling rates of different-sized containers of water, strength of different-sized constructions from the same material, flight characteristics of different-sized model airplanes).	Investigation 2, Parts 2-3 Investigation 3, Parts 1-3 Investigation 6, Parts 1-2 Mixtures and Solutions Investigation 3, Parts 1-3 Variables Investigation 1, Part 1 Investigation 3, Parts 1-2 Water Planet Investigation 3, Part 1	Pages 16-25 Pages 8-22 Pages 8-17 Pages 8-24 Pages 8-15 Pages 8-19 Pages 125-135
SC.0.5.3.05 research everyday applications and interactions of science and technology.	Variables Science Stories Solar Energy Science Stories Models and Designs Science Stories Levers and Pulleys Science Stories	Pages 15-20 and 32-33 Pages 29-39 Pages 25-28 and 37-40 Pages 6-17 and 21-32
SC.0.5.3.06 evaluate and critically analyze mass media reports of scientific developments and events.	This objective should be accomplished with current mass media information.	
SC.0.5.3.07 explore the connections between science, technology, society and career opportunities	Mixtures and Solutions Science Stories Food and Nutrition Investigation 4, Math Extension Models and Designs Investigation 3, Language Extension Water Planet Science Resources	Pages 29-31 Page 23 Page 24 Pages 15, 18-19

Grade Six

Standard 1: Nature of Science (SC.S.6.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.6.1.01 realize that scientists formulate and test their explanations of nature using observation and experiments.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Variables Investigation 3, Parts 2-3, Environments Investigation 3, Parts 1-3 Planetary Science Investigation 5, Parts 2-3 Weather and Water Investigation 4, Parts 1-2 Force and Motion Investigation 2, Part 3 Investigation 6, Part 2 Diversity of Life Investigation 9, Part 2	Pages 14-23 Pages 8-22 Pages 158-167 Pages 121-139 Pages 89-99 Pages 229-235 Pages 278-285
SC.0.6.1.02 recognize scientific knowledge is subject to modification as new scientific information challenges current theories.	Mixtures and Solutions Science Stories Food and Nutrition Science Stories Models and Designs Science Stories Earth History Resources Planetary Science Resources Force and Motion Resources Video: Galileo: On the Shoulders of Giants Populations and Ecosystems Resources	Pages 4, 25-27 Pages 10-13 Pages 5-9 Pages 83-84 Pages 59-68 and 90-96 Pages 50-53 and 63-63 Pages 46-55
SC.0.6.1.03 examine the careers and contributions of men and women of diverse cultures to the development of science.	Solar Energy Science Stories Mixtures and Solutions Science Stories Water Planet Science Resources Populations and Ecosystems Resources Force and Motion Resources Video: Galileo: On the Shoulders of Giants Planetary Science Resources Earth History Resources	Page 34 Pages 33-36 Pages 15, 18-19 Pages 46-55 and 60-61 Pages 50-52 and 62-63 Pages 52-53 and 71-73 Pages 83-84
SC.0.6.1.04 compare and contrast the historical significance of scientific	FOSS™ investigations provide the opportunity to accomplish this objective. See for example:	

discoveries.	Mixtures and Solutions Science Stories Models and Designs Science Stories Water Planet Science Resources Force and Motion Resources Video: Galileo: On the Shoulders of Giants Earth History Resources Populations and Ecosystems Resources Electronics Resources Planetary Science Resources	Pages 4, 25-27 Pages 5-9 Page 96 Pages 50-52 Pages 83-84 Pages 46-55 and 60-61 Pages 34-36 Pages 52-53, 67-68, 74-79 and 90-96
SC.0.6.1.05 cooperate and collaborate to ask questions, design and conduct investigations to find answers and solve problems.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Variables Investigation 3, Parts 2-3 Solar Energy Investigation 3, Parts 1-2 Water Planet Investigation 2, Parts 2-3 Living Systems Investigation 3, Part 3 Planetary Science Investigation 5, Parts 2-3 Weather and Water Investigation 6, Parts 1-3 Earth History Investigation 4, Parts 2-3 Force and Motion Investigation 5, Part 4 Investigation 6, Part 2	Pages 14-23 Pages 8-23 Pages 86-100 Pages 136-141 Pages 158-167 Pages 190-205 Pages 132-146 Pages 194-201 Pages 229-235
SC.0.6.1.06 formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Landforms Investigation 3, Parts 1-3 Variables Investigation 4, Parts 2-3 Water Planet Investigation 3, Part 1 Living Systems Investigation 2, Part 1 Earth History Investigation 5, Parts 2-3 Human Brain and Senses Investigation 7, Parts 1-2 Electronics Investigation 8, Parts 2-4 Investigation 6, Part 3	Pages 8-24 Pages 12-23 Pages 125-135 Pages 85-98 Pages 179-187 Pages 210-225 Pages 256-271 Pages 195-200

	Diversity of Life Investigation 5, Part 2 Investigation 9, Part 2	Pages 157-164 Pages 278-285
SC.0.6.1.07 apply skepticism, careful methods, logical reasoning and creativity in investigating the observable universe.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Solar Energy Investigation 3, Parts 1-2 Environments Investigation 6, Parts 1-2 Water Planet Investigation 2, Parts 2-3 Living Systems Investigation 2, Part 1 Force and Motion Investigation 5, Part 4 Investigation 7, Part 3 Populations and Ecosystems Investigation 5, Parts 1-2 Investigation 6, Part 2 Planetary Science Investigation 5, Parts 2-4 and 7 Weather and Water Investigation 5, Parts 1-3	Pages 8-23 Pages 8-17 Pages 86-100 Pages 85-98 Pages 194-201 Pages 267-272 Pages 142-155 Pages 187-190 Pages 158-173 and 180-184 Pages 152-174
SC.0.6.1.08 use a variety of technologies and scientific instruments to conduct explorations, investigations and experiments of the natural world.	Levers and Pulleys Investigation 1, Parts 1-2 Models and Designs Investigation 2, Parts 1-2 Water Planet Investigation 3 Part 1 Living Systems Investigation 3, Part 3 Diversity of Life Investigation 2, Parts 1-3 Investigation 3, Parts 1-2 Force and Motion Investigation 2, Part 3 Investigation 5, Part 2 Electronics Investigation 3, Parts 1-2 Investigation 8, Parts 1-3 Planetary Science Investigation 8, Parts 3-4 Weather and Water Investigation 6, Parts 2-3	Pages 18-28 Pages 8-21 Pages 125-135 Pages 136-141 Pages 72-91 Pages 102-115 Pages 89-99 Pages 177-186 Pages 119-127 Pages 250-264 Pages 260-270 Pages 194-205
SC.0.6.1.09 demonstrate safe techniques for handling, manipulating and caring for science materials, equipment, natural specimens and living organisms.	FOSS™ modules include a “Safety in the Classroom” section and provide specific cautions where appropriate. See for example: Mixtures and Solutions Investigation 4 Variables Investigation 4 Electronics Force and Motion	Page 21 Page 13 Page 145 Page 224

	Human Brain and Senses	Page 71
SC.0.6.1.10 utilize experimentation to demonstrate scientific processes and thinking skills (e.g., formulating questions, predicting, forming hypotheses, quantifying, identifying dependent and independent variables).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Landforms Investigation 3, Parts 1-3 Variables Investigation 3, Parts 2-3 Investigation 4, Parts 2-3 Living Systems Investigation 3, Part 3 Planetary Science Investigation 5, Parts 2-3 Diversity of Life Investigation 5, Part 2 Investigation 9, Part 2 Force and Motion Investigation 1, Part 2 Investigation 2, Part 3 Investigation 6, Part 2 Electronics Investigation 3, Part 2	Pages 8-24 Pages 14-23 Pages 12-23 Pages 136-141 Pages 158-167 Pages 157-164 Pages 278-285 Pages 57-62 Pages 89-99 Pages 229-235 Pages 124-127
SC.0.6.1.11 construct and use charts, graphs and tables to organize, display, interpret, analyze and explain data.	Levers and Pulleys Investigation 1, Parts 2-3 Food and Nutrition Investigation 3, Parts 2-3 Water Planet Investigation 3, Part 1 Living Systems Investigation 2, Part 1 Electronics Investigation 3, Part 2 Investigation 8, Parts 2-3 Force and Motion Investigation 4, Parts 2-3 Investigation 5, Parts 1-2 Weather and Water Investigation 4, Part 1 Investigation 5, Part 1 Human Brain and Senses Investigation 7, Parts 1-2	Pages 18-28 Pages 18-25 Pages 125-135 Pages 85-98 Pages 124-127 Pages 256-264 Pages 146-155 Pages 169-186 Pages 121-130 Pages 152-162 Pages 210-225
SC.0.6.1.12 use inferential reasoning to make logical conclusions from collected data.	Models and Designs Investigation 2, Parts 1-2 Environments Investigation 2, Parts 2-4 Water Planet Investigation 3, Part 1 Living Systems Investigation 2, Part 1 Planetary Science Investigation 5, Parts 2-4 Weather and Water Investigation 6, Parts 1-2 Earth History Investigation 1, Parts 1-2 Investigation 4, Parts 2-3	Pages 8-21 Pages 16-30 Pages 125-135 Pages 85-98 Pages 158-173 Pages 190-199 Pages 39-48 Pages 132-146

	Force and Motion Investigation 5, Part 2 Investigation 7, Part 1	Pages 177-186 Pages 256-261
Standard 2: Content of Science (SC.S.6.2)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.6.2.01 demonstrate the interrelationships among physics, chemistry, biology, earth and environmental science and astronomy.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Water Planet Investigation 3, Part 2 Science Resources Earth History Resources Planetary Science Resources Weather and Water Resources Populations and Ecosystems Resources	Pages 136-144 Pages 46-51 Pages 64-67 Pages 67-68 Pages 63-65 Pages 28-29
SC.0.6.2.02 use pictures to show the cyclical processes in nature (e.g. nitrogen cycle, carbon cycle, or water cycle).	Environments FOSS Web, Pictures: Oxygen Cycle, Nitrogen Cycle, Carbon Cycle, Water Cycle Water Planet Science Resources Living Systems Science Resources	Pages 48-50, 68-69 Page 32
SC.0.6.2.03 classify living organisms according to their structure and functions.	Living Systems Investigation 2, Part 2 Science Resources Diversity of Life Investigation 3, Part 3 Resources	Pages 99-106 Pages 21-22 Pages 116-122 Pages 4-7, 16-17 and 65-68
SC.0.6.2.04 compare the similarities of internal features of organisms, which can be used to infer relatedness.	Human Brain and Senses Investigation 2, Parts 1-3 Investigation 3, Part 3 Resources Diversity of Life Investigation 5, Parts 2-3 Investigation 7, Part 1 Resources	Pages 67-82 Pages 106-110 Pages 29-30 and 40-42 Pages 157-170 Pages 218-223 Pages 55-58
SC.0.6.2.05 explain how abiotic and biotic factors affect the interdependence among organisms.	Populations and Ecosystems Investigation 1, Parts 2-3 Investigation 3, Parts 1-3 Investigation 4, Part 2 Investigation 5, Parts 2-4 Resources	Pages 47-59 Pages 90-107 Pages 122-229 Pages 151-169 Pages 8-13, 14-21 and 22-24
SC.0.6.2.06 construct models of plant and animal cells, and compare the basic parts (e.g., cytoplasm, cell wall, cell membrane, nucleus, or chloroplasts).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Diversity of Life Investigation 4, Part 1 Resources	Pages 133-136 Pages 8-9 and 27-30
SC.0.6.2.07 compare	Diversity of Life	

growth cycles in different plants (e.g., mosses, ferns, perennials, biennials, woody plants, herbaceous plants).	Investigation 5, Part 2	Pages 157-164
SC.0.6.2.08 predict changes in populations of organisms due to limiting environmental factors (e.g., food supply, predators, disease, or habitat).	Populations and Ecosystems Investigation 2, Part 2 Investigation 3, Parts 1-3 Investigation 6, Parts 1-3 Resources	Pages 76-79 Pages 90-107 Pages 179-197 Pages 22-29
SC.0.6.2.09 analyze the ecological consequences of human interactions with the environment (e.g., renewable and non-renewable resources).	Populations and Ecosystems Investigation 7 Resources CD: Ecoscenarios Earth History Resources Weather and Water Resources	Pages 210-215 Pages 28-29 and 31-41 Pages 64-67 Pages 63-65
SC.0.6.2.10 classify and investigate properties and processes (changes) as either physical or chemical.	Chemical Interactions Investigation 1, Parts 1-2 Investigation 7, Parts 1-5 Investigation 8, Parts 1-2 Investigation 9, Parts 1-4 Resources	Pages 41-58 Pages 204-234 Pages 248-262 Pages 280-312 Pages, 3-6, 26-31, 43-53, 63-68, 73-77, 103
SC.0.6.2.11 investigate the formation and separation of simple mixtures of matter concluding that matter is composed of tiny particles and that the particles are the same for the same type of matter.	Weather and Water Resources CD, Matter and Energy: Molecules in Solids, Liquids, and Gases Chemical Interactions Investigation 2, Part 1 Investigation 3, Parts 1-3 Investigation 8, Parts 1-3 Resources	Pages 22-31 Pages 70-74 Pages 92-113 Pages 248-268 Pages 49-53
SC.0.6.2.12 use indicators to identify substances as acidic, basic or neutral.	Chemical Interactions Investigation 9, Parts 3-4	Pages 288-312
SC.0.6.2.13 using the periodic table, identify the symbols of elements as solids, liquids and gases, metals or nonmetals.	Chemical Interactions Investigation 2, Parts 1-2 Resources	Pages, 70-80 Pages 3-6
SC.0.6.2.14 describe the composition and properties of matter (e.g., particles, malleability, melting point, density, inertia, or specific heat).	Weather and Water Investigation 5, Part 1 Resources Planetary Science Investigation 8, Part 3 Chemical Interactions Investigation 1, Parts 1-2 Investigation 3, Parts 1-3 Investigation 3, Parts 1-3 Investigation 7, Part 2 Resources	Pages 152-162 Pages 27-31 Pages 260-264 Pages 41-58 Pages, 92-113 Pages, 122-141 Pages 210-214 Pages 14-27
SC.0.6.2.15 investigate the properties electromagnetic spectrum (e.g., wavelengths, frequencies, visible light); relate wave lengths and/or frequency to		

position on electromagnetic spectrum (e.g., colors, x-ray).		
SC.0.6.2.16 recognize that an object's color is based upon the absorption and reflection of light waves.		
SC.0.6.2.17 describe light and sound in terms of longitudinal or transverse waves.		
SC.0.6.2.18 describe the flow of heat between objects (e.g., hot air rises, absorption and release of heat by metals).	Water Planet Investigation 3, Parts 1-2 Science Resources Weather and Water Investigation 4, Parts 1-2 Investigation 5, Parts 2-3 CD, Heat and Energy Video: Conduction in Metals Convection Chamber Chemical Interactions Investigation 4, Parts 1-3 Investigation 5, Parts 1-3 Investigation 6 Investigation 7, Parts 1-5 Resources	Pages 125-144 Pages 42-51 Pages 121-139 Pages 163-174 Pages 122-141 Pages 153-171 Pages 178-187 Pages 204-254 Pages 26-48
SC.0.6.2.19 diagram simple parallel and series circuits (e.g., bulbs, battery, wires, switch).	Electronics Investigation 1, Parts 1-3 and 5	Pages 55-70 and 76-79
SC.0.6.2.20 correlate the relationship of mass to gravitational force (e.g., larger the mass the larger the gravitational force, the closer the objects the stronger the force).	Force and Motion Investigation 7, Parts 1-3 Resources Planetary Science Resources	Pages 256-272 Pages 62-65 and 67-69 Page 70
SC.0.6.2.21 examine simple machines and the forces involved.	Levers and Pulleys Investigation 1, Parts 1-3 Investigation 2, Parts 1-4 Investigation 3, parts 1-3 Investigation 4, Parts -12 Science Stories	Pages 8-28 Pages 8-25 Pages 8-24 Pages 8-20 Pages 1-27
SC.0.6.2.22 apply the effects of balanced and unbalanced forces on motion of objects.	Force and Motion Investigation 6, Parts 1-4 Investigation 8, Part 1 Resources	Pages 218-245 Pages 284-301 Pages 70-74
SC.06.2.23 explain motion in terms of frames of reference and analyze graphs depicting motion and predicted future motion.	Force and Motion Investigation 1, Parts 1-3 Investigation 2, Parts 1-3 Investigation 3, Parts 1-2 Investigation 4, parts 1-3 Resources	Pages 47-66 Pages 78-99 Pages 111-123 Pages 138-155 Page 1-9, 17-19
SC.0.6.2.24 monitor major atmospheric events using a variety of resources including technology.	Weather and Water Investigation 1, Part 2 Investigation 6, Parts 4-5 Investigation 8, Part 4 Investigation 9, Part 2	Pages 48-53 Pages 206-220 Pages 2676-279 Pages 303-310
SC.0.6.2.25 compare and contrast continental drift hypothesis to the plate tectonic	FOSS™ investigations provide the opportunity to accomplish this objective. See for example:	

theory.	Earth History Resources	Pages 100-105
SC.0.6.2.26 associate plant and animal life forms with specific geologic time periods.	Earth History Investigation 7, Parts -2 Resources	Pages 234-243 Pages 38-41, 84-86
SC.0.6.2.27 recognize the phases of the moon.	Planetary Science Investigation 4, Part 1 Investigation 9, Parts 1-4 Resources CD, Phases of the Moon	Pages 120-125 Pages 283-301 Page 32
SC.0.6.2.28 investigate models of earth-moon-sun relationships (e.g., gravity, time, tides).	Planetary Science Investigation 2, Part 2 Investigation 9, Part 2 CD, Day/Night Simulation Weather and Water Investigation 3, Parts 2-3	Pages 94-98 Pages 288-292 Pages 97-110
SC.0.6.2.29 compare the earth's tilt and revolution to the seasonal changes.	Weather and Water Investigation 3, Parts 2-3 Resources CD, Cycles: Seasons	Pages 97-110 Pages 17-19

Standard 3: Application of Science (SC.S.6.3)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.6.3.01 explore the relationship between the parts of a system to the whole system.	Variables Investigation 3, Parts 1-2 Investigation 4, Parts 1-2 Models and Designs Investigation 2, Parts 1-2 Water Planet Investigation 1, Part 1 Science Resources Living Systems Investigation 1, Parts 1-3 Science Resources Electronics Investigation 1, Parts 1-3 Investigation 5, Parts 1-2 Force and Motion Investigation 1, Part 2 Investigation 8, Part 2 Planetary Science Investigation 1, Part 2 Investigation 3, Parts 1-3 Human Brain and Senses Investigation 2, Part 3 Investigation 3, Part 3	Pages 8-19 Pages 8-17 Pages 8-21 Pages 50-58 Pages 1-13 Pages 51-70 Pages 2-13 Pages 55-70 Pages 161-170 Pages 57-62 Pages 294-301 Pages 47-54 Pages 90-107 Pages 77-83 Pages 106-110
SC.0.6.3.02 construct a variety of useful models of an object, event, or process.	Models and Designs Investigation 1, Parts 1-3 Investigation 2, Parts 1-2 Water Planet Investigation 1, Part 1 Landforms Investigation 1, Parts 1-3 Human Brain and Senses Investigation 3, Part 3	Pages 8-25 Pages 8-21 Pages 50-58 Pages 8-24 Pages 106-110

	Earth History Investigation 4, Part 3 Investigation 6, Part 3 Populations and Ecosystems Investigation 1, Part 2 Investigation 3, Parts 1-3 Planetary Science Investigation 3, Part 2 Investigation 9, Part 2	Pages 138-146 Pages 215-219 Pages 47-54 Pages 90-107 Pages 94-98 Pages 288-292
SC.0.6.3.03 compare and contrast changes that occur in an object or a system to its original state.	Solar Energy Investigation 3, Parts 1-2 Living Systems Investigation 2, Part 1 Landforms Investigation 2, Parts 1-2 Weather and Water Investigation 4, Parts 1-2 Populations and Ecosystems Investigation 1, Part 3 Earth History Investigation 4, Part 3 Planetary Science Investigation 5, Parts 2-3	Pages 8-23 Pages 85-98 Pages 8-22 Pages 121-139 Pages 55-59 Pages 138-146 Pages 158-167
SC.0.6.3.04 compare and contrast the influence that a variation in scale will have on the way an object or system works. (e.g., cooling rates of different-sized containers of water, strength of different-sized constructions from the same material, flight characteristics of different-sized model airplanes).	Models and Designs Investigation 3, Parts 1-3 Environments Investigation 4, Parts 1-2 Force and Motion Investigation 1, Part 2 Investigation 2, Part 3 Weather and Water Investigation 3, Part 3 Electronics Investigation 8, Part 3 Planetary Science Investigation 5, Part 3	Pages 8-23 Pages 8-18 Pages 57-62 Pages 89-99 Pages 103-110 Pages 261-264 Pages 164-167
SC.0.6.3.05 research everyday applications and interactions of science and technology.	Solar Energy Science Stories Mixtures and Solutions Science Stories Planetary Science Resources Electronics Resources	Pages 29-39 Pages 26-27 Pages 71-92 Pages 18-21, 34-36
SC.0.6.3.06 evaluate and critically analyze mass media reports of scientific developments and events.	This would be a local activity. See for example: Populations and Ecosystems Investigation 7	Pages 210-215

Grade Seven

Standard 1: Nature of Science (SC.S.7.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.7.1.01 realize that scientists formulate and test their explanations of nature using observation and experiments.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Planetary Science Investigation 5, Parts 2-3 Weather and Water Investigation 4, Parts 1-2 Force and Motion Investigation 2, Part 3 Investigation 6, Part 2 Diversity of Life Investigation 9, Part 2	Pages 158-167 Pages 121-139 Pages 89-99 Pages 229-235 Pages 278-285
SC.0.7.1.02 recognize scientific knowledge is subject to modification as new scientific information challenges current explanations.	Earth History Resources Planetary Science Resources Force and Motion Resources Video: Galileo: On the Shoulders of Giants Populations and Ecosystems Resources	Pages 83-84 Pages 59-68 and 90-96 Pages 50-53 and 63-63 Pages 46-55
SC.0.7.1.03 examine the careers and contributions of men and women of diverse cultures to the development of science.	Populations and Ecosystems Resources Force and Motion Resources Video: Galileo: On the Shoulders of Giants Planetary Science Resources Earth History Resources	Pages 46-55 and 60-61 Pages 50-55 and 62-63 Pages 52-53 and 71-73 Pages 83-84
SC.0.7.1.04 compare and contrast the historical significance of scientific discoveries.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Force and Motion Resources Video: Galileo: On the Shoulders of Giants Earth History Resources Populations and Ecosystems Resources Electronics Resources Planetary Science Resources	Pages 50-52 Pages 83-84 Pages 46-55 and 60-61 Pages 34-36 Pages 52-53, 67-68, 74-79 and 90-96
SC.0.7.1.05 cooperate and collaborate to ask questions, design and conduct investigations	FOSS™ investigations provide the opportunity to accomplish this objective. See for example:	

to find answers and solve problems.	Planetary Science Investigation 5, Parts 2-3 Weather and Water Investigation 6, Parts 1-3 Earth History Investigation 4, Parts 2-3 Force and Motion Investigation 5, Part 4 Investigation 6, Part 2	Pages 158-167 Pages 190-205 Pages 132-146 Pages 194-201 Pages 229-235
SC.0.7.1.06 formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Earth History Investigation 5, Parts 2-3 Human Brain and Senses Investigation 7, Parts 1-2 Electronics Investigation 8, Parts 2-4 Investigation 6, Part 3 Diversity of Life Investigation 5, Part 2 Investigation 9, Part 2	Pages 179-187 Pages 210-225 Pages 256-271 Pages 195-200 Pages 157-164 Pages 278-285
SC.0.7.1.07 apply skepticism, careful methods, logical reasoning and creativity in investigating the observable universe.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Force and Motion Investigation 5, Part 4 Investigation 7, Part 3 Populations and Ecosystems Investigation 5, Parts 1-2 Investigation 6, Part 2 Planetary Science Investigation 5, Parts 2-4 and 7 Weather and Water Investigation 5, Parts 1-3	Pages 194-201 Pages 267-272 Pages 142-155 Pages 187-190 Pages 158-173 and 180-184 Pages 152-174
SC.0.7.1.08 use a variety of technologies and scientific instruments to conduct explorations, investigations and experiments of the natural world.	Diversity of Life Investigation 2, Parts 1-3 Investigation 3, Parts 1-2 Force and Motion Investigation 2, Part 3 Investigation 5, Part 2 Electronics Investigation 3, Parts 1-2 Investigation 8, Parts 1-3 Planetary Science Investigation 8, Parts 3-4 Weather and Water Investigation 6, Parts 2-3	Pages 72-91 Pages 102-115 Pages 89-99 Pages 177-186 Pages 119-127 Pages 250-264 Pages 260-270 Pages 194-205
SC.0.7.1.09 demonstrate safe techniques for handling, manipulating and caring for science materials, equipment, natural specimens and living organisms.	FOSS™ modules include a “Safety in the Classroom” section and provide specific cautions where appropriate. See for example: Electronics Force and Motion Human Brain and Senses	Page 145 Page 224 Page 71
SC.0.7.1.10 utilize	FOSS™ investigations provide	

experimentation to demonstrate scientific processes and thinking skills (e.g., formulating questions, predicting, forming hypotheses, quantifying, or identifying dependent and independent variables).	the opportunity to accomplish this objective. See for example: Planetary Science Investigation 5, Parts 2-3 Diversity of Life Investigation 5, Part 2 Investigation 9, Part 2 Force and Motion Investigation 1, Part 2 Investigation 2, Part 3 Investigation 6, Part 2 Electronics Investigation 3, Part 2	Pages 158-167 Pages 157-164 Pages 278-285 Pages 57-62 Pages 89-99 Pages 229-235 Pages 124-127
SC.0.7.1.11 construct and use charts, graphs and tables to organize, display, interpret, analyze and explain data.	Electronics Investigation 3, Part 2 Investigation 8, Parts 2-3 Force and Motion Investigation 4, Parts 2-3 Investigation 5, Parts 1-2 Weather and Water Investigation 4, Part 1 Investigation 5, Part 1 Human Brain and Senses Investigation 7, Parts 1-2	Pages 124-127 Pages 256-264 Pages 146-155 Pages 169-186 Pages 121-130 Pages 152-162 Pages 210-225
SC.0.7.1.12 use inferential reasoning to make logical conclusions from collected data.	Planetary Science Investigation 5, Parts 2-4 Weather and Water Investigation 6, Parts 1-2 Earth History Investigation 1, Parts 1-2 Investigation 4, Parts 2-3 Force and Motion Investigation 5, Part 2 Investigation 7, Part 1	Pages 158-173 Pages 190-199 Pages 39-48 Pages 132-146 Pages 177-186 Pages 256-261
Standard 2: Content of Science (SC.S.7.2)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.7.2.01 demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science, and astronomy.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Earth History Resources Planetary Science Resources Weather and Water Resources Populations and Ecosystems Resources	Pages 64-67 Pages 67-68 Pages 63-65 Pages 28-29
SC.0.7.1.02 identify and describe disease causing organisms (such as bacteria, viruses, protozoa, fungi) and the diseases they cause.	Diversity of Life Investigation 10, Part 1 Resources	Pages 302-309 Pages 65-68
SC.0.7.1.03 explain how the skeletal, muscular and		

integumentary systems work together in the human body.		
SC.0.7.1.04 compare the level of organization of cells, tissues and organs in living things.	Diversity of Life Investigation 4, Parts 1-2 Investigation 5, Part 3 Investigation 6, Part 2 Resources CD, Cells and The Ribbon of Life	Pages 133-141 Pages 165-170 Pages 193-197 Pages 31-32 and 37-39
SC.0.7.1.05 construct simple keys to differentiate among living things with similar characteristics.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Diversity of Life Investigation 3, Part 3	Pages 116-122
SC.0.7.1.06 use pictures to show cyclical processes in nature (e.g., water cycle, nitrogen cycle, and carbon cycle).	Weather and Water Investigation 7, Parts 1-2	Pages 232-243
SC.0.7.1.07 evaluate how the different adaptations and life cycles of plants and animals help them to survive in different niches and environments (e.g., inherited and acquired adaptations).	Populations and Ecosystems Investigation 8, Parts 1-2 Resources CD, Octopus Color Change Diversity of Life Investigation 6, Part 2 Investigation 7, Part 2 Investigation 8, Part 1 Investigation 9, Part 1 Resources	Pages 228-243 Pages 42-45 Pages 193-197 Pages 224-229 Pages 239-243 Pages 273-277 Pages 33-36, 39, 41-44, 53-54 and 60-64
SC.0.7.1.08 analyze how changes in the environment have led to reproductive adaptations through natural selection.	Populations and Ecosystems Investigation 10, Part 3 Resources	Pages 315-317 Pages 58-61
SC.0.7.1.09 explain how an organism's behavior response is a combination of heredity and environment.	Populations and Ecosystems Investigation 10, Parts 1-2	Pages 302-315
SC.0.7.1.10 analyze the differences in the growth, development and reproduction of flowering and non-flowering plants.	Diversity of Life Investigation 5, Part 2	Pages 157-164
SC.0.7.1.11 predict the trends of interdependent populations if one of the limiting factors is changed.	Populations and Ecosystems Investigation 6, Parts 2-3 Resources	Pages 187-197 Pages 22-24
SC.0.7.1.12 evaluate the consequences of the introduction of chemicals into the ecosystem (e.g., environmental consequences, human health risks, mutations).	Populations and Ecosystems Resources	Page 37
SC.0.7.1.13 compare differences among elements, compounds, homogeneous and heterogeneous mixtures.	Chemical Interactions Investigation 2, Parts 1-2 Investigation 8, Parts 1-3 Resources	Pages 70-80 Pages 248-268 Pages 3-13, 49-62
SC.0.7.1.14 examine the	Chemical Interactions	

differences in types of solutions (e.g., solutes and solvents relative concentrations, conductivity, pH).	Investigation 8, Parts 1-3 Resources	Pages 248-268 Pages 49-62
SC.0.7.1.15 examine chemical reactions involving acids and bases by monitoring color changes of indicator(s) and identifying the salt formed in the neutralization reaction.	Chemical Interactions Investigation 9, Parts 2-4	Pages 288-312
SC.0.7.1.16 write word equations to describe chemical reactions.	Chemical Interactions Investigation 9, Parts 2-3 Investigation 10, Parts 1-2 Resources	Pages 288-307 Pages 323-336 Pages 63-67, 73-74
SC.0.7.1.17 describe the movement of individual particles and verify the conservation of matter (e.g., melting and freezing of pure substances).	Weather and Water Investigation 4, Part 2 Investigation 5, Parts 2-3 Resources CD, Matter and Energy: Molecules in Solids, Liquids and Gases Chemical Interactions Investigation 4, Parts 1-3 Investigation 5, Parts 1-3 Investigation 7, Parts 1-4 Resources CD, Particles in Solid, Liquid and Gas	Pages 131-139 Pages 163-174 Pages 22-26 Pages 122-141 Pages 153-171 Pages 204-228 Pages 23-48
SC.0.7.1.18 identify the characteristics of sound waves and describe how sound is perceived by the ear.		
SC.0.7.1.19 define the absorption and reflection of light as translucent, opaque and transparent.		
SC.0.7.1.20 interpret and illustrate changes in waves as they encounter various mediums (e.g., mirrors, or lenses).	Human Brain and Senses Investigation 3, Parts 1-3 Resources CD, Optics Bench	Pages 92-110 Pages 31-35
SC.0.7.1.21 investigate absorption and reflection of light by an object.		
SC.0.7.1.22 characterize series and parallel circuits; AC and DC currents.	Electronics Investigation 1, Parts 2-3	Pages 61-70
SC.0.7.1.23 explain conservation of matter and energy and investigate the different forms of energy (e.g., mechanical, potential, kinetic, or gravitational).	Electronics Investigation 1, Parts 1-3 Investigation 4, Parts 1-2 Resources Force and Motion Investigation 2, Part 3 Investigation 7, Part 1 Resources	Pages 55-70 Pages 143-151 Pages 12-13 Pages 89-99 Pages 256-261 Pages 62-66
SC.0.7.1.24 perform experiments with simple machines to demonstrate the	Force and Motion Investigation 2, Part 3	Pages 89-99

relationship between forces and distance; use vectors to represent motion.		
SC.0.7.1.25 explain the effect of gravity on falling objects (e.g., $g=9.8\text{m/s}^2$, object dropped on earth and on moon).	Force and Motion Investigation 7, Parts 1-3 Resources	Pages 256-272 Pages 62-66 and 68-69
SC.0.7.1.26 describe and compare causes of tides, surfs and currents.		
SC.7.0.7.1.27 examine the effects of the sun's energy on oceans, weather, (e.g., air masses, or convection currents).	Weather and Water Investigation 8, Part 2 Investigation 9, Parts 1-2 Resources CD, Weather and Landforms CD, Climate Factors: Local Wind	Pages 265-270 Pages 296-310 Pages 32-33, 56-62 and 84
SC.0.7.1.28 interpret GIS maps and create and interpret topographical maps.		
SC.7.4.29 describe rock formations (e.g., rock cycle).	Earth History Investigation 3, Part 4 Investigation 5, Part 4 Investigation 10, Parts 1-3 Resources	Pages 108-111 Pages 188-193 Pages 254-270 Pages 93-97, 100-105
SC.0.7.1.30 classify rocks (e.g., crystal/particle size, or mineral composition and uses).	Earth History Investigation 3, Part 1 Investigation 4, Parts 4-5 Investigation 5, Parts 1-3 Investigation 8, Parts 1-3 Resources	Pages 88-95 Pages 150-162 Pages 175-187 Pages 254-270 Pages 42-46, 93-97
SC.0.7.1.31 determine the relative age of rock layers using index fossils and the law of superposition.	Earth History Investigation 5, Part 4 Investigation 6, Parts 3-4 Investigation 7, Part 1 Resources CD, Time Room	Pages 188-193 Pages 215-224 Pages 234-242 Pages 76-82, 84-86
SC.0.7.1.32 explain how changing latitude affects climate.	Weather and Water Investigation 3, Parts 2-3 Resources CD, Cycles: Seasons	Pages 97-110 Pages 17-19
SC.0.7.1.33 trace the life cycle of a star.		

Standard 5: Application of Science (SC.S.7.3)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.7.3.01 explore the relationship between the parts of a system to the whole system.	Electronics Investigation 1, Parts 1-3 Investigation 5, Parts 1-2 Force and Motion Investigation 1, Part 2 Investigation 8, Part 2 Planetary Science Investigation 1, Part 2 Investigation 3, Parts 1-3 Human Brain and Senses Investigation 2, Part 3	Pages 55-70 Pages 161-170 Pages 57-62 Pages 294-301 Pages 47-54 Pages 90-107 Pages 77-83

	Investigation 3, Part 3	Pages 106-110
SC.0.7.3.02 construct a variety of useful models of an object, event or process.	Human Brain and Senses Investigation 3, Part 3 Earth History Investigation 4, Part 3 Investigation 6, Part 3 Populations and Ecosystems Investigation 1, Part 2 Investigation 3, Parts 1-3 Planetary Science Investigation 3, Part 2 Investigation 9, Part 2	Pages 106-110 Pages 138-146 Pages 215-219 Pages 47-54 Pages 90-107 Pages 94-98 Pages 288-292
SC.0.7.3.03 compare and contrast changes that occur in an object or a system to its original state.	Weather and Water Investigation 4, Parts 1-2 Populations and Ecosystems Investigation 1, Part 3 Earth History Investigation 4, Part 3 Planetary Science Investigation 5, Parts 2-3	Pages 121-139 Pages 55-59 Pages 138-146 Pages 158-167
SC.0.7.3.04 compare and contrast the influence that a variation in scale will have on the way an object or system works. (e.g., cooling rates of different-sized containers of water, strength of different-sized constructions from the same material, flight characteristics of different-sized model airplanes).	Force and Motion Investigation 1, Part 2 Investigation 2, Part 3 Weather and Water Investigation 3, Part 3 Electronics Investigation 8, Part 3 Planetary Science Investigation 5, Part 3	Pages 57-62 Pages 89-99 Pages 103-110 Pages 261-264 Pages 164-167
SC.0.7.3.05 research everyday applications and interactions of science and technology.	Planetary Science Resources Electronics Resources Human Brain and Senses Resources	Pages 74-82 Pages 15-21, 34-36 Page 49
SC.0.7.3.06 evaluate and critically analyze mass media reports of scientific developments and events.	This would be a local activity. See for example: Populations and Ecosystems Investigation 7	 Pages 210-215
SC.0.7.3.07 explore the connections between science, technology, society and career opportunities.	Planetary Science Resources Earth History Resources Weather and Water Video: Careers in Hydrology	Pages 71-73 Pages 98-99

Grade Eight

Standard 1: Nature of Science (SC.S.8.1)		
<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.8.1.01 formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Human Brain and Senses Investigation 7, Part 2 Chemical Interactions Investigation 5, Part 1 Electronics Investigation 5, Parts 1-2 Populations and Ecosystems Investigation 5, Part 2	Pages 219-225 Pages 153-158 Pages 161-170 Pages 151-156
SC.0.8.1.02 demonstrate how a testable methodology is employed to seek solutions for personal and societal issues (e.g., “scientific method”).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Planetary Science Investigation 5, Parts 2-3 Weather and Water Investigation 4, Parts 1-2 Force and Motion Investigation 2, Part 3 Investigation 6, Part 2 Diversity of Life Investigation 9, Part 2	Pages 158-167 Pages 121-139 Pages 89-99 Pages 229-235 Pages 278-285
SC.0.8.1.03 relate societal, cultural and economic issues to key scientific innovations.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Populations and Ecosystems Resources Force and Motion Resources Video: Galileo: On the Shoulders of Giants Planetary Science Resources Earth History Resources	Pages 46-55 and 60-61 Pages 50-55 and 62-63 Pages 52-53 and 71-73 Pages 83-84
SC.0.8.1.04 conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Planetary Science Investigation 5, Parts 2-3 Weather and Water Investigation 4, Parts 1-2 Force and Motion Investigation 2, Part 3 Investigation 6, Part 2 Diversity of Life Investigation 9, Part 2	Pages 158-167 Pages 121-139 Pages 89-99 Pages 229-235 Pages 278-285
SC.0.8.1.05 implement safe procedures and practices when manipulating equipment,	FOSS™ investigations provide the opportunity to accomplish this objective. See for example:	

materials, organisms, and models.	Electronics Force and Motion Human Brain and Senses	Page 145 Page 224 Page 71
SC.0.8.1.06 use appropriate technology solutions within a problem solving setting to measure and collect data; interpret data; analyze and/or report data; interact with simulations; conduct research; and present and communicate conclusions.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Diversity of Life Investigation 2, Parts 1-3 Force and Motion Investigation 7, Part 3 Electronics Investigation 3, Parts 1-2 Planetary Science Investigation 8, Parts 3-4 Populations and Ecosystems Investigation 8, Part 2	Pages 72-91 Pages 89-99 Pages 119--127 Pages 260-270 Pages 234-243
SC.0.8.1.07 design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Planetary Science Investigation 5, Parts 2-3 Weather and Water Investigation 4, Parts 1-2 Force and Motion Investigation 2, Part 3 Investigation 6, Part 2 Diversity of Life Investigation 9, Part 2	Pages 158-167 Pages 121-139 Pages 89-99 Pages 229-235 Pages 278-285
SC.0.8.1.08 draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, predict the influence of external variance such as potential sources of error, or interpret maps).	Diversity of Life Investigation 9, Part 2 Force and Motion Investigation 2, Part 3 Investigation 6, Part 2 Electronics Investigation 3, Parts 1-2 Investigation 8, Parts 1-3 Planetary Science Investigation 8, Parts 3-4 Weather and Water Investigation 6, Parts 2-3	Pages 278-285 Pages 89-99 Pages 229-235 Pages 119-127 Pages 250-264 Pages 260-270 Pages 194-205

Standard 2: Content of Science (SC.S.8.2)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.8.2.01 demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science, and astronomy.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Earth History Resources Planetary Science Resources Weather and Water Resources Populations and Ecosystems	Pages 64-67 Pages 67-68 Pages 63-65

	Resources	Pages 28-29
SC.0.8.2.02 examine and describe the structures and functions of cell organelles.	Diversity of Life Investigation 4, Parts 1-2 Resources CD, Cells and The Ribbon of Life	Pages 133-136 Pages 27-30
SC.0.8.2.03 explain how the circulatory, respiratory and reproductive systems work together in the human body.		
SC.0.8.2.04 compare the variations in cells, tissues and organs of the circulatory, respiratory and reproductive systems of different organisms.		
SC.0.8.2.05 discuss how living cells obtain the essentials of life through chemical reactions of fermentation, respiration and photosynthesis.	Diversity of Life Investigation 6, Part 2 Resources Populations and Ecosystems Investigation 5, Part 2 Resources	Pages 193-197 Pages 32-33 and 36-39 Pages 151-155 Pages 14-15
SC.0.8.2.06 analyze how behaviors of organisms lead to species continuity (e.g., reproductive/mating behaviors, seed dispersal).	Diversity of Life Investigation 7, Part 2 Resources CD, Database: Collection – Seed Dispersal	Pages 224-229 Pages 46-50 and 60-64
SC.0.8.2.07 demonstrate the basic principles of genetics; introduce Mendel’s law, monohybrid crosses, production of body and sex cells (mitosis/meiosis), genes, chromosomes, and inherited traits.	Populations and Ecosystems Investigation 9, Parts 1-4 Resources CD, Larkeys, Genotype and Phenotype CD, Larkeys, Punnett Square	Pages 262-291 Pages 46-55
SC.0.8.2.08 compare patterns of human development to other vertebrates.		
SC.0.8.2.09 organize groups of unknown organisms based on observable characteristics (e.g., use dichotomous keys).	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Diversity of Life Investigation 3, Part 3 Resources	Pages 116-122 Pages 4-7
SC.0.8.2.10 trace matter and energy flow in a food web as it flows from sunlight to producers to consumers, design an environment in which the chemical and energy needs for the growth, reproduction and development of plants are met (e.g., food pyramids, decomposition).	Populations and Ecosystems Investigation 3, Parts 1-3 Investigation 4, Part 2 Investigation 5, Parts 2-4 Resources	Pages 90-107 Pages 122-129 Pages 151- 169 Pages 17-21
SC.0.8.2.11 use the periodic table to locate and classify elements as metallic, non-metallic or metalloid.	Chemical Interactions Investigation 2, Parts 1-2 Resources	Pages 70-80 Pages 6, 90-91
SC.0.8.2.12 reconstruct		

development models of the atom (e.g., Crookes, Thompson, Becquerel, Rutherford, Bohr).		
SC.0.8.2.13 calculate the number of protons, neutrons and electrons and use the information to construct a Bohr model of the atom.		
SC.0.8.2.14 classify elements into their chemical families based on their valence electrons.		
SC.0.8.2.15 evaluate the variations in diffusion rates and examine the effect of changing temperatures.		
SC.0.8.2.16 conduct and classify chemical reactions by reaction type (synthesis, decomposition, single replacement or double replacement); energy type (endothermic and exothermic); and write word equations for the chemical reactions.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Chemical Interactions Investigation 9, Parts 2-4 Investigation 10, Parts 1-2 Resources	Pages 288-312 Pages 323-336 Pages 63-67
SC.0.8.2.17 identify and describe factors that affect chemical reaction rates, including catalysts, temperature changes, light energies and particle size.		
SC.0.8.2.18 examine the various sources of energy (e.g., fossil fuels, wind, solar, geothermal, nuclear, biomass).	Weather and Water Investigation 4, Part 1 Resources Electronics Resources	Pages 121-130 Page 63 Pages 12-13
SC.08.2.19 Explain the Doppler effect (e.g. sound).	Planetary Science Resources	Page 99
SC.0.8.2.20 quantitatively represent wavelength, frequency and velocity (e.g., $v=Af$).		
SC.0.8.2.21 relate the conservation of energy theory to energy transformations (e.g., electrical/heat, mechanical/heat).	Electronics Investigation 1, Parts 1-3 Investigation 4, Parts 1-2 Resources Force and Motion Investigation 2, Part 3 Investigation 7, Part 1 Resources	Pages 55-70 Pages 143-51 Pages 12-13 Pages 89-99 Pages 256-261 Pages 62-66
SC.0.8.4.22 quantitatively represent work, power, pressure (e.g., $Work=Force \times distance$, $Power = Work/time$, $pressure =force/area$) from collected data.		
SC.0.8.2.23 graph and interpret the relationships of distance versus time, speed versus time, acceleration versus time.	Force and Motion Investigation 1, Part 2 Investigation 2, Part 3 Investigation 3, Part 2	Pages 57-62 Pages 89-99 Pages 119-123

	Investigation 4, Parts 1-2 and 4	Pages 169-186 and 194-201
SC.0.8.3.24 describe Newton's Law of Motion; identify examples; illustrate qualitatively and quantitatively drawing vector examples.	Force and Motion Investigation 6, Parts 3-4 Investigation 7, Part 1 Investigation 8, Part 1 Resources	Pages 236-245 Pages 256-262 Pages 284-293 Page 52
SC.0.8.3.25 illustrate and calculate the mechanical advantage of simple machines.		
SC.0.8.3.26 research and draw conclusions related to the quality and quantity of surface and ground water.	Weather and Water Resources	Pages 45-47
SC.0.8.3.27 identify and explain the principle forces of plate tectonics and related geological events (e.g., earthquakes, volcanoes, or landforms).	Earth History Resources	Pages 100-105
SC.0.8.3.28 determine the impact of oceans on weather and climate; relate global patterns of atmospheric movement on local weather.	Weather and Water Investigation 8, Parts 2 and 4 Investigation 9, Part 1-3 Resources CD, Weather and Landforms CD, Climate Factors	Pages 265-270 and 276-270 Pages 296-314 Pages 53-62
SC.0.8.3.29 analyze the forces of tectonics, weathering and erosion that have shaped the earth's surface.	Earth History Investigation 3, Part 4 Investigation 4, Parts 3-4 Resources Video: weathering and Erosion	Pages 108-111 Pages 138-149 Pages 100-105
SC.0.8.3.30 model processes of soil formation and suggest methods of soil preservation and conservation.		
SC.0.8.3.31 research and recognize the societal concerns of exploration and colonization of space.	Planetary Science Investigation 7, Parts 1-3 Resources	Pages 218-231 Pages 74-82, 90-100
SC.0.8.2.32 describe the origin and orbits of comets, asteroids, and meteoroids.	Planetary Science Resources	Pages 87, 89

Standard 3: Application OF Science (SC.S.8.3)

<i>SCIENCE OBJECTIVE</i> <i>The student will:</i>	<i>FOSS™</i> <i>INVESTIGATIONS</i>	<i>PAGE(S)</i>
SC.0.8.3.01 synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time).	FOSS™ investigations provide the opportunity to accomplish this objective. Besides including concepts from life, earth and physical science, FOSS also includes the unifying themes of science indicated in this objective.	
SC.0.8.3.02 investigate, compare and design scientific and technological solutions to personal and societal problems.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Force and Motion	

	Investigation 8, Part 2 Electronics	Pages 294-301
	Investigation 9, Part 2	Pages 290-297
SC.0.8.3.03 communicate experimental designs, results and conclusions using advanced technological tools.	FOSS™ investigations provide the opportunity to accomplish this objective. The use of technological tools is encouraged.	
SC.0.8.3.04 collaborate to present research on current environmental and technological issues to predict possible outcomes.	FOSS™ investigations provide the opportunity to accomplish this objective. See for example: Populations and Ecosystems Investigation 7 Resources	Pages 210-215 Pages 31-41
SC.0.8.3.05 explore occupational opportunities in science, engineering and technology and evaluate the required academic preparation.	Planetary Science Resources Earth History Resources Weather and Water Video: Careers in Hydrology	Pages 71-73 Pages 98-99
SC.0.8.3.06 given a current science-technology-societal issue, construct and defend potential solutions.	This would be a local activity. See for example: Populations and Ecosystems Investigation 7	Pages 210-215