



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

**Nebraska
Science Standards**



Nebraska Science Standards

FOSS modules are inquiry-based. The fundamentals of scientific inquiry are imbedded in all FOSS modules at a developmentally appropriate level. The following correlation of the Nebraska Science Standards to the Full Option Science System (FOSS) is to show representative examples of investigations from FOSS that address the content standards. A citation does not reflect all of the investigations or activities from FOSS that might address a particular standard.

Grades K-2

SC K-12.1 Comprehensive Science Standard – Inquiry and the Nature of Science and Technology

Students will combine scientific processes and knowledge with scientific reasoning and critical thinking to ask questions about phenomena and propose explanations based on gathered evidence.

STANDARD	FOSS INVESTIGATION
SC2.1.1.a Ask questions that relate to a science topic	<p>Animals Two by Two Investigation 1, Part 2, pp. 17-29</p> <p>Trees Investigation 1, Parts 1-3, pp. 7-22</p> <p>Balance and Motion Investigation 1, Parts 3-4, pp. 19-28</p> <p>Plants and Animals Investigation 4, Parts 1-2, pp. 155-166</p> <p>Air and Weather Investigation 1, Parts 4-6, pp. 21-38</p> <p>Insects and Plants Investigation 3, Parts 1-3, pp. 129-152</p>
SC2.1.1.b Conduct simple investigations	<p>Wood and Paper Investigation 1, Part 4, pp. 24-27</p> <p>Fabric Investigation 1, Parts 1-2, pp. 7-17</p> <p>Balance and Motion Investigation 3, Parts 1-2, pp. 6-18</p> <p>Plants and Animals Investigation 1, Parts 1-2, pp. 47-62</p> <p>New Plants Investigation 4, Parts 1-2, pp. 7-19</p> <p>Solids and Liquids Investigation 4, Parts 1-3, pp. 7-27</p>
SC2.1.1.c Select and use simple tools appropriately	<p>Fabric Investigation 1, Parts 4, 6, pp. 20-22, 29-33</p> <p>Wood and Paper Investigation 1, Parts 3-4, pp. 20-27</p> <p>Pebbles, Sand and Silt Investigation 1, Parts 1-3, pp. 8-21</p>

<p>SC2.1.1.d Describe objects, organisms, or events using pictures, words, and numbers</p>	<p>Investigation 2, Part 1, pp. 8-12 Air and Weather Investigation 2, Parts 2, 4, pp. 14-19, 24-27 Insects and Plants Investigation 1, Parts 1-3, pp. 52-75</p> <p>Animals Two by Two Investigation 1, Part 1, 4, pp. 10-16, 26-29 Trees Investigation 1, Parts 3-6, pp. 20-30 Insects Investigation 2, Parts 1-3, pp. 8-24 Solids and Liquids Investigation 2, Parts 1-3, pp. 10-27 Pebbles, Sand and Silt Investigation 3, Part 1, pp. 8-14 New Plants Investigation 2, Parts 1-3, pp. 8-28</p>
<p>SC2.1.1.e Collect and record observations</p>	<p>Wood and Paper Investigation 1, Part 4, pp. 24-32 Trees Investigation 1, Part 7, pp. 31-34 Investigation 3, Part 9, pp. 35-38 Solids and Liquids Investigation 4, Parts 1-2, pp. 7-22 Plants and Animals Investigation 1, Parts 1-3, pp. 47-74 Air and Weather Investigation 2, Parts 1-2, pp. 8-19 New Plants Investigation 1, Parts 1-3, pp. 8-30</p>
<p>SC2.1.1.f Use drawings and words to describe and share observations with others</p>	<p>Animals Two by Two Investigation 1, Part 1, pp. 10-16 Investigation 3, Part 1, pp. 8-12 Trees Investigation 2, Parts 1-4, pp. 6-23 Pebbles, Sand and Silt Investigation 2, Parts 1-3, pp. 8-23 Plants and Animals Investigation 4, Parts 1-2, pp. 155-166 Air and Weather Investigation 1, Parts 2-3, pp. 13-20 Insects Investigation 1, Parts 1-3, pp. 8-25</p>
<p>SC2.1.1.g Use appropriate mathematics in all aspects of scientific inquiry</p>	<p>Wood and Paper Investigation 1, Part 4, pp. 24-27 Trees Investigation 1, Part 7, pp. 31-34 Investigation 3, Part 9, pp. 35-39 Pebbles, Sand and Silt Investigation 2, Parts 2-4, pp. 14-29 Plants and Animals Investigation 1, Parts 3, pp. 63-74</p>

	<p>Air and Weather Investigation 2, Parts 2, 4, pp. 14-19, 24-27</p> <p>New Plants Investigation 4, Math Extension, pp. 20-21</p>
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SC K-12.2 Comprehensive Science Standard – Physical Science

Students will integrate and communicate the information, concepts, principles, processes, theories, and models of the Physical Sciences to make connections with the natural and engineered world.

STANDARD	FOSS INVESTIGATION
SC2.2.1.a Observe physical properties of objects (freezing and melting, sinking and floating, color, size, texture, shape, weight)	<p>Wood and Paper Investigation 1, Parts 1-3, pp. 8-23 Investigation 3, Parts 1-4, pp. 8-25</p> <p>Fabric Investigation 1, Parts 1-2, pp. 6-15</p> <p>Solids and Liquids Investigation 1, Part 1, pp. 8-16 Investigation 2, Parts 1-3, pp. 10-27</p> <p>Pebbles, Sand and Silt Investigation 1, Parts 1-2, pp. 8-17 Investigation 2, Parts 1-4, pp. 8-29 Investigation 4, Parts 1-3, pp. 8-25</p>
SC2.2.1.b Separate and sort objects by physical attributes	<p>Wood and Paper Investigation 1, Part 3, pp. 20-23 Investigation 3, Parts 2-4, pp. 13-25</p> <p>Fabric Investigation 1, Part 4, pp. 20-22</p> <p>Solids and Liquids Investigation 1, Part 2, pp. 17-20 Investigation 3, Parts 2, 4, pp. 14-18, 24-27</p> <p>Pebbles, Sand and Silt Investigation 1, Parts 3-4, pp. 8-25 Investigation 2, Parts 1-4, pp. 8-29 Investigation 4, Part 1, pp. 8-14</p>
SC2.2.1.c Measure objects using standard and nonstandard units.	<p>Wood and Paper Investigation 1, Part 4, pp. 24-27</p> <p>Trees Investigation 1, Part 7, pp. 31-34 Investigation 3, Part 9, pp. 35-39</p> <p>Air and Weather Investigation 2, Parts 2, 4, pp. 14-19, 24-27</p> <p>Pebbles, Sand and Silt Investigation 2, Parts 1-2, pp. 8-17</p>
SC2.2.1.d Identify solids and liquids and recognize that liquids take the shape of their container	<p>Solids and Liquids Investigation 1, Parts 1-2, pp. 8-20 Investigation 2, Parts 1-3, pp. 10-27 Science Stories, pp. 4-13</p>
SC2.2.2.a State location and/or motion relative to another object or its surroundings (in front of, behind, between, over, under, faster, slower, forward and backward, up and down)	<p>Animals Two by Two Investigation 1, Part 3, pp. 22-25 Investigation 4, Part 3, pp. 16-19</p> <p>Balance and Motion</p>

<p>SC2.3.1.c Identify external parts of plants and animals</p>	<p>Investigation 1, Part 1, pp. 47-57 Investigation 3, Parts 1-2, pp. 120-134 Science Resources, pp. 3-7, 21-23 Insects and Plants Investigation 1, Part 1, pp. 52-61 Investigation 4, Part 2, pp. 170-174</p> <p>Trees Investigation 1, Parts 5-6, pp. 25-30 Animals Two by Two Investigation 1, Part 1, pp. 10-16 New Plants Investigation 1-4, all parts Science Stories, pp. 4-15 Insects Investigation 1-6, all parts Science Stories, pp. 12-15 Plants and Animals Investigation 1, 2-4, all parts Science Resources, pp. 4-7, 16-9 Insects and Plants Investigation 1-5, all parts Science Resources, pp. 15-19, 30-33</p>
<p>SC2.3.1.d Observe and match plants and animals to their distinct habitats.</p>	<p>Animals Two by Two Investigation 1, Parts 1-4, pp. 10-29 Investigation 3, Parts 1-3, pp. 8-20 Science Stories, pp. 4-24 New Plants Science Stories, pp. 22-39 Insects Investigation 3, Parts 2-3, pp. 12-26 Investigation 5, Parts 1-3, pp. 10-24 Investigation 6, Parts 1-3, pp. 8-22 Science Stories, pp. 4-11, 26-31 Plants and Animals Investigation 3, Parts 1-3, pp. 120-140 Science Resources, pp. 28-45 Insects and Plants Investigation 3, Part 2, pp. 134-144 Science Resources, pp. 3-7, 26-29, 48-55</p>
<p>SC2.3.2.a Describe how offspring resemble their parents</p>	<p>Animals Two by Two Investigation 1, Part 4, pp. 26-29 Science Stories, pp. 20-24 FOSS Web, Activity: Find the Parent New Plants Investigation 1, Part 3, pp.23-30 Insects Investigation 1-5 Science Stories, pp. 16-21 Plants and Animals Investigation 2, Parts 1-3, pp. 87-100 Insects and Plants Investigation 2, Parts 1-3, pp. 91-115 Investigation 3, Parts 1-3, pp. 129-151</p>

<p>SC2.4.3.a Observe that the Sun provides heat and light</p>	<p>Air and Weather Investigation 2, Part 2, pp. 14-19 Science Stories, pp. 7, 10, 21</p> <p>New Plants Investigation 1, Part 2, pp. 13-22 Science Stories, p. 6</p> <p>Insects and Plants Investigation 2, Part 2, pp. 95-104</p> <p>Plants and Animals Science Resources, p. 6</p>
<p>SC2.4.3.b Observe and describe simple daily changes in weather</p>	<p>Air and Weather Investigation 2, Parts 1-4, pp. 8-27 Investigation 3, Parts 2, 4, pp. 12-16, 22-27 Investigation 4, Part 1, pp. 8-11 Science Stories, pp. 7-13</p>
<p>SC2.4.3.c Describe simple seasonal weather indicators and how they impact student choices (activities, clothing)</p>	<p>Air and Weather Investigation 4, Parts 1-2, pp. 8-18 Science Stories, pp. 8-21 FOSS Web, Activity: What's the Weather</p>

Grades 3-5

SC K-12.1 Comprehensive Science Standard – Inquiry and the Nature of Science and Technology

Students will combine scientific processes and knowledge with scientific reasoning and critical thinking to ask questions about phenomena and propose explanations based on gathered evidence.

STANDARD	FOSS INVESTIGATION
SC5.1.1.a Ask testable scientific questions	Human Body Investigation 4, Parts 1-3, pp. 8-24 Water Investigation 3, Parts 1-4, pp. 8-26 Magnetism and Electricity Investigation 3, Parts 1-3, pp. 10-26 Variables Investigation 3, Parts 2-3, pp. 14-23 Landforms Investigation 3, Parts 1-3, pp. 8-24
SC5.1.1.b Plan and conduct investigations and identify factors that have the potential to impact an investigation	Structures of Life Investigation 1, Parts 2-3, pp. 18-33 Physics of Sound Investigation 2, Parts 2-3, pp. 13-24 Sun, Moon and Stars Investigation 1, Part 2, pp. 56-64 Mixtures and Solutions Investigation 1, Parts 1-2, pp. 8-20 Solar Energy Investigation 3, Parts 1-2, pp. 8-23
SC5.1.1.c Select and use equipment correctly and accurately	Measurement Investigation 2, Parts 2-3, pp. 14-24 Matter and Energy Investigation 2, Parts 1-2, pp. 93-114 Magnetism and Electricity Investigation 4, Parts 1-3, pp. 8-22 Levers and Pulleys Investigation 1, Parts 1-2, pp. 18-28 Environments Investigation 1, Parts 1-2, pp. 8-19
SC5.1.1.d make relevant observations and measurements	Earth Materials Investigation 1, Parts 1-2, pp. 8-23 Water Investigation 4, Parts 1-2, pp. 8-18 Measurement Investigation 3, Parts 2-3, pp. 14-21 Mixtures and Solutions Investigation 1, Parts 2-3, pp. 16-24 Solar Energy Investigation 2, Parts 1-2, pp. 8-24
SC5.1.1.e Collect and organize data	Human Body Investigation 4, Parts 1-3, pp. 8-24 Structures of Life

<p>SC5.1.1.f Develop a reasonable explanation based on collected data</p>	<p>Investigation 1, Parts 2-3, pp. 18-33 Magnetism and Electricity Investigation 1, Part 3, pp. 23-29 Variables Investigation 3, Parts 3-4, pp. 20-27 Levers and Pulleys Investigation 1, Parts 2-3, pp. 18-28</p> <p>FOSS provides the opportunity for teachers to address this standard. See examples below:</p>
<p>SC5.1.1.g Share information, procedures, and results with peers and adults</p>	<p>Structures of Life Investigation 1, Parts 2-3, pp. 18-33 Physics of Sound Investigation 2, Parts 2-3, pp. 13-24 Sun, Moon and Stars Investigation 1, Part 2, pp. 56-64 Mixtures and Solutions Investigation 1, Parts 1-2, pp. 8-20 Solar Energy Investigation 3, Parts 1-2, pp. 8-23</p> <p>FOSS provides the opportunity for teachers to address this standard. See examples below:</p>
<p>SC5.1.1.h Provide feedback an scientific investigations</p>	<p>Earth Materials Investigation 1, Parts 1-2, pp. 8-23 Water Investigation 4, Parts 1-2, pp. 8-18 Measurement Investigation 3, Parts 2-3, pp. 14-21 Mixtures and Solutions Investigation 1, Parts 2-3, pp. 16-24 Solar Energy Investigation 2, Parts 1-2, pp. 8-24</p> <p>FOSS provides the opportunity for teachers to address this standard. See examples below:</p>
<p>SC5.1.1.i Use appropriate mathematics in all aspects of scientific inquiry</p>	<p>Structures of Life Investigation 1, Parts 2-3, pp. 18-33 Physics of Sound Investigation 2, Parts 2-3, pp. 13-24 Sun, Moon and Stars Investigation 1, Part 2, pp. 56-64 Mixtures and Solutions Investigation 1, Parts 1-2, pp. 8-20 Solar Energy Investigation 3, Parts 1-2, pp. 8-23</p> <p>Measurement Investigation 2, Part 3, pp. 18-24 Investigation 3, Part 3, pp. 18-21 Water Investigation 4, Part 1, pp. 8-13 Human Body</p>

<p>SC5.1.2.a Recognize that scientific explanations are based on evidence and scientific knowledge</p>	<p>Investigation 4, Part 3, pp. 20-24 Mixtures and Solutions Investigation 1, Part 2, pp. 16-20 Levers and Pulleys Investigation 4, Part 2, pp. 14-20</p> <p>FOSS investigations provide teachers the opportunity to address this standard. See examples below:</p> <p>Structures of Life Investigation 1, Parts 2-3, pp. 18-33 Physics of Sound Investigation 2, Parts 2-3, pp. 13-24 Sun, Moon and Stars Investigation 1, Part 2, pp. 56-64 Mixtures and Solutions Investigation 1, Parts 1-2, pp. 8-20 Solar Energy Investigation 3, Parts 1-2, pp. 8-23</p>
<p>SC5.1.2.b Recognize that new discoveries are always being made which impact scientific knowledge</p>	<p>Sun, Moon and Stars Science Resources, pp. 40-43 Human Body Science Stories, pp. 21-24 Ideas and Inventions Science Stories, pp. 17-21 Food and Nutrition Science Stories, pp. 24-26 Mixtures and Solutions Science Stories, pp. 25-27 Solar Energy Science Stories, pp. 29-31</p>
<p>SC5.1.2.c Recognize many different people study science</p>	<p>Sun, Moon and Stars Science Resources, pp. 44-45 Water Science Stories, pp. 24-26 Ideas and Inventions Science Stories, pp. 1-2 Food and Nutrition Science Stories, pp. 24-26 Mixtures and Solutions Science Stories, pp. 9-10 Variables Science Stories, pp. 4-6</p>
<p>SC5.1.3.a Identify a simple problem</p>	<p>Magnetism and Electricity Investigation 4, Part 3, pp. 19-22 Water Investigation 4, Part 2, pp. 14-18 Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21</p>
<p>SC5.1.3.b Propose a solution to a simple</p>	<p>Magnetism and Electricity</p>

problem	Investigation 4, Part 3, pp. 19-22 Water Investigation 4, Part 2, pp. 14-18 Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21
SC5.1.3.c Implement the proposed solution	Magnetism and Electricity Investigation 4, Part 3, pp. 19-22 Water Investigation 4, Part 2, pp. 14-18 Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21
SC5.1.3.d Evaluate the implementation	Magnetism and Electricity Investigation 4, Part 3, pp. 19-22 Water Investigation 4, Part 2, pp. 14-18 Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21
SC5.1.3.e Communicate the problem, design, and solution	Magnetism and Electricity Investigation 4, Part 3, pp. 19-22 Water Investigation 4, Part 2, pp. 14-18 Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21

SC K-12.2 Comprehensive Science Standard – Physical Science

Students will integrate and communicate the information, concepts, principles, processes, theories, and models of the Physical Sciences to make connections with the natural and engineered world.

STANDARD	FOSS INVESTIGATION
SC5.2.1.a Identify mixtures and pure substances	Mixtures and Solutions Investigation 1, Parts 1-2, pp. 8-20 Investigation 2, Parts 1-2, pp. 8-20 Science Stories, pp. 1-6, 20, 25-28, 32-42
SC5.2.1.b Identify physical properties of matter (color, odor, elasticity, eight and volume)	Magnetism and Electricity Investigation 1, Part 1, pp. 8-17 Water Investigation 1, Parts 1-3, pp. 8-23 Science Stories, pp. 1-3 Earth Materials Investigation 1, Parts 1-3, pp. 8-29 Investigation 2, Parts 1-2, pp. 8-21 Investigation 4, Part 1, pp.8-13 Mixtures and Solutions Investigation 1, Part 1, pp. 8-15 Science Stories, pp. 37-41
SC5.2.1.c Use appropriate metric	Earth Materials

<p>measurements to describe physical properties</p>	<p>Investigation 1, Part 1, pp. 8-15 Water Investigation 4, Part 1, pp. 8-13 Solar Energy Investigation 2, Part 2, pp. 16-24</p>
<p>SC5.2.1.d Identify state changes caused by heating and cooling for solids, liquids and gases</p>	<p>Water Investigation 3, Parts 1-4, pp. 8-26 Science Stories, pp. 13-16 Matter and Energy Investigation 4, Part 2, pp. 181-192 Science Resources, pp. 54-56 Water Planet Investigation 2, Parts 1-4, pp. 80-110 Science Resources, pp. 26-30, 33-40, 64-70 Solar Energy Science Stories, pp. 22-24</p>
<p>SC5.2.2.a Describe motion by tracing and measuring an object's position over a period of time (speed)</p>	<p>FOSS provides the opportunity to address this standard. See below: Models and Designs Investigation 3, Part 2, pp. 20-23</p>
<p>SC5.2.2.b Describe changes in motion due to outside forces (push, pull, gravity)</p>	<p>Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 6-15 Variables Investigation 1, Parts 1-3, pp. 9-27 Investigation 3, Parts 1-4, pp. 8-17 Investigation 4, parts 1-3, pp. 8-23</p>
<p>SC5.2.2.c Describe magnetic behavior in terms of attraction and repulsion</p>	<p>Magnetism and Electricity Investigation 1, Parts 1-4, pp. 8-34 Science Stories, pp. 1-9</p>
<p>SC5.2.3.a Recognize that sound is produced from vibrating objects; the sound can be changed by changing the vibration</p>	<p>Physics of Sound Investigation 1, Part 3, pp. 21-29 Investigation 2, Parts 1-3, pp. 8-24 Science Stories, pp. 6, 9, 11-13</p>
<p>SC5.2.3.b Recognize that light travels in a straight line and can be reflected by an object (mirror)</p>	<p>Matter and Energy Investigation 2, Part 1, pp. 93-102 Science Resources, pp. 24-28, 34-35 Ideas and Inventions Investigation 4, Parts 1-3, pp. 8-21 Science Stories, pp. 28-32</p>
<p>SC5.2.3.c Recognize that light can travel through certain materials and not others (transparent, translucent, opaque)</p>	<p>Matter and Energy Investigation 2, Part 2, pp. 103-114 Science Resources, pp. 29-33, 36</p>
<p>SC5.2.3.d Identify ways to generate heat (friction, burning, incandescent light bulb)</p>	<p>Matter and Energy Investigation 1, Part 1, pp. 50-62 Science Resources, pp. 2-3, 6, 9-10 Magnetism and Electricity Science Stories, pp. 20, 33</p>

<p>SC5.2.3.e Identify materials that act as thermal conductors or insulators</p> <p>SC5.2.3.f recognize that the transfer of electricity in an electrical circuit requires a closed loop.</p>	<p>Magnetism and Electricity Investigation 2, Part 3, pp. 20-25 Science Stories, pp. 20, 33</p> <p>Matter and Energy Investigation 1, Parts 1-2, pp. 50-70 Magnetism and Electricity Investigation 2, Parts 1-4, pp. 8-29 Investigation 3, Parts 1-3, pp. 10-26</p>
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SC K-12.3 Comprehensive Science Standard – Life Science

Students will integrate and communicate the information, concepts, principles, processes, theories, and models of the Life Sciences to make connections with the natural and engineered world.

STANDARD	FOSS INVESTIGATION
<p>SC5.3.1.a Compare and contrast characteristics of living and nonliving things</p> <p>SC5.3.1.b Identify how parts of plants and animals function to meet basic needs (e.g., leg of an insect helps an insect move, root of a plant helps the plant obtain water))</p> <p>SC5.3.2.a Identify inherited characteristics of plants and animals</p>	<p>FOSS modules provide ample opportunity to address this standard by comparing the various modules to the life science modules. See examples below.</p> <p>Structures of Life Investigation 1, Parts 1-2, pp. 8-27 Investigation 3, Parts 1-2, pp. 8-20 Science Stories, pp. 10-11, 17-34</p> <p>Human Body Science Stories, pp. 1-16, 28-29</p> <p>Living Systems Investigation 1, Parts 1-3, pp. 51-70 Science Resources, pp. 1-20, 31-30</p> <p>Environments Investigation 1, Parts 1-2, pp. 8-19 Investigation 2, Parts 1-3, pp. 10-25</p> <p>Structures of Life Investigation 1, Part 2, pp. 18-27 Investigation 2, Parts 1-3, pp. 8-22 Investigation 3, Part 1, pp. 8-15 Investigation 4, Parts 1-2, pp. 8-19 Science Stories, pp. 1-2, 10-11, 17-18, 20-32, 39-42</p> <p>Human Body Investigation 1, Parts 1-2, pp. 8-20 Investigation 2, Parts 1-3, pp. 8-22 Investigation 3, Parts 1-3, pp. 8-21 Science Stories, pp. 1-3, 9-10, 12-16</p> <p>Living Systems Investigation 2, Part 1, pp. 85-98 Science Resources, pp. 16-20</p> <p>Environments Science Stories, pp. 3-22</p> <p>Structures of Life Investigation 2, Part 3, pp. 18-22 Investigation 3, Part 1, pp. 8-15</p>

<p>SC5.3.2.b Identify the life cycle of an organism</p>	<p>Investigation 4, Parts 1-2, pp. 8-19 Science Stories, pp. 17-18, 39-40 FOSS Web, Activity Life Cycles Environments Science Stories, pp. 17-22</p> <p>Structures of Life Investigation 2, Part 3, pp. 18-22 Science Stories, pp. 20-21 FOSS Web, Activity Life Cycles Environments Science Stories, pp. 19, 21</p>
<p>SC5.3.3.a Diagram and explain a simple food chain beginning with the Sun</p>	<p>Structures of Life Science Stories, p. 43 Environments Investigation 4, Part 3, pp. 19-22 Science Stories, pp. 39-41</p>
<p>SC5.3.3.b Identify the role of producers, consumers, and decomposers in an ecosystem</p>	<p>Environments Science Stories, pp. 39-41</p>
<p>SC5.3.3.c Recognize the living and nonliving factors that impact the survival of organisms in an ecosystem.</p>	<p>Structures of Life Science Stories, pp. 22-34, 37-38 Environments Investigation 3, Parts 1-3, pp. 8-22 Investigation 4, Parts 1-2, pp. 8-18 Investigation 6, Parts 1-2, pp. 8-17 Science Stories, pp. 38-41, 43-45</p>
<p>SC5.3.3.d Recognize all organisms cause changes, some beneficial and some detrimental, in the environment where they live</p>	<p>Structures of Life Science Stories, pp. 35-36 Landforms Science Stories, pp. 1-14 Mixtures and Solutions Science Stories, pp. 21-22 Environments Science Stories, pp. 35-38, 43-46, 49-52</p>
<p>SC5.3.4.a Describe adaptations made to plants or animals to survive environmental changes</p>	<p>Structures of Life Science Stories, pp. 24-25, 27-29, 31-32, 35-36 Environments Science Stories, pp. 3-7, 12, 14, 16-17, 32-33</p>

SC K-12.4 Comprehensive Science Standard – Earth and Space Science

Students will integrate and communicate the information, concepts, principles, processes, theories, and models of the Earth and Space Sciences to make connections with the natural and engineered world.

STANDARD	FOSS INVESTIGATION
<p>SC5.4.1.a Recognize that the observed shape of the Moon changes from day to day during a month period.</p>	<p>Sun, Moon and Stars Investigation 2, parts 1-2, pp. 79-100 Science Resources, pp. 20-32 Ideas and Inventions Science Stories, pp. 34-46</p>

<p>SC5.4.1.b Recognize the motion of objects in the sky (the Sun, the Moon, stars) change over time in recognizable patterns</p>	<p>Sun, Moon and Stars Investigation 1-3 Science Resources, pp. 1-11, 19-32, 35-39 Ideas and Inventions Science Stories, pp. 33-37 Solar Energy Science Stories, pp. 43-44</p>
<p>SC5.4.2.a Describe the characteristics of rocks, minerals, soil, water, and the atmosphere</p>	<p>Earth Materials Investigation 1, Parts 1-3, pp. 8-29 Investigation 2, Parts 1-2, pp. 8-21 Investigation 3, Parts 1-2, pp. 8-19 Investigation 4, Part 1, pp. 8-13 Science Stories, pp. 1-4, 12-15, 30-37 Water Investigation 1, Parts 1-3, pp. 8-23 Science Stories, pp. 1-3</p>
<p>SC5.4.2.b Identify weathering, erosion, and deposition as processes that build up or break down Earth's surface</p>	<p>Earth Materials Science Stories, pp. 5-7 Landforms Investigation 2, Parts 1-2, pp. 8-22 Investigation 3, Parts 1-3, pp. 8-24 Science Stories, pp. 15-17, 25-29</p>
<p>SC5.4.2.c Identify how Earth materials are used (fuels, building materials, sustaining plant life)</p>	<p>Earth Materials Science Stories, pp. 24-29 Water Science Stories, pp. 10-11, 17-21, 22-23 Matter and Energy Science Resources, pp. 2-3, 9-10 Structures of Life Investigation 2, Parts 1-3, pp. 8-22 Environments Investigation 3, Part 1, pp. 8-13</p>
<p>SC5.4.3.a Describe the Sun's warming effect on the land and water</p>	<p>Water Investigation 3, Part 2, pp. 12-16 Science Stories, pp. 13-16 Solar Energy Investigation 2, Parts 1-2, pp. 8-24 Investigation 3, Parts 1-3, pp. 8-23 Science Stories, pp. 1-3, 12-13, 22-23, 29-37 Water Planet Investigation 2, Part 2, pp. 86-93 Investigation 3, Part 1, pp. 125-136 Science Resources, pp. 42-45, 58, 67-70</p>
<p>SC5.4.3.b Observe, measure and record changes in weather (temperature, wind direction and speed, and precipitation)</p>	<p>This standard is addressed in the grade 2 module <u>Air and Weather</u> and in the grade six module <u>Weather and Water</u>.</p>
<p>SC5.4.3.c Recognize the difference between weather, climate and seasons</p>	<p>Water Planet Science Resources, pp. 72, 76-79</p>

<p>SC5.4.4.a Describe how slow processes (erosion, weathering, deposition, uplift) and rapid processes (landslides, volcanic eruptions, earthquakes, violent storms) change the Earth's surface</p>	<p>Earth Materials Science Stories, pp. 5-7</p> <p>Landforms Investigation 2, Parts 1-2, pp. 8-22 Investigation 3, Parts 1-3, pp. 8-24 Science Stories, pp. 15-17, 22-29</p>
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Grades 6-8

SC K-12.1 Comprehensive Science Standard – Inquiry and the Nature of Science and Technology

Students will combine scientific processes and knowledge with scientific reasoning and critical thinking to ask questions about phenomena and propose explanations based on gathered evidence.

STANDARD	FOSS INVESTIGATION
SC8.1.1.a Formulate testable questions that lead to predictions and scientific investigations	<p>Environments Investigation 2, Parts 2-4, pp. 16-30</p> <p>Landforms Investigation 3, Parts 1-3 pp. 8-24</p> <p>Solar Energy Investigation 3, Parts 1-2, pp. 8-23</p> <p>Human Brain and Senses Investigation 7, Part 2, pp. 219-222</p> <p>Diversity of Life Investigation 9, Part 2, pp. 278-285</p> <p>Force and Motion Investigation 2, Part 3, pp. 89-99</p>
SC8.1.1.b Design and conduct logical and sequential investigations including repeated trials	<p>Water Planet Investigation 3, Part 1, pp. 125-135</p> <p>Variables Investigation 3, Parts 2-3, pp. 14-23</p> <p>Levers and Pulleys Investigation 1, Parts 2-3, pp. 18-28</p> <p>Electronics Investigation 6, Part 3, pp. 195-200</p> <p>Weather and Water Investigation 4, Part 1, pp. 121-130</p> <p>Populations and Ecosystems Investigation 5, Part 1, pp. 142-150</p>
SC8.1.1.c Determine controls and use dependent (responding) and independent (manipulated) variables	<p>Environments Investigation 6, Parts 1-2, pp. 8-17</p> <p>Variables Investigation 4, Parts 2-3, pp. 12-23</p> <p>Solar Energy Investigation 3, Parts 1-2, pp. 8-23</p> <p>Diversity of Life Investigation 9, Part 2, pp. 278-285</p> <p>Planetary Science Investigation 5, Parts 2-3, pp. 158-167</p> <p>Force and Motion Investigation 2, Part 3, pp. 89-95</p>
SC8.1.1.d Select and use equipment appropriate to the investigation, demonstrate correct techniques, and apply appropriate mathematical concepts	<p>Living Systems Investigation 2, Part 1, pp. 85-98</p> <p>Food and Nutrition Investigation 2, Parts 1-3, pp. 8-25</p> <p>Levers and Pulleys Investigation 1, Parts 1-2, pp. 18-28</p> <p>Electronics Investigation 31, Parts 1-4, pp. 119-135</p>

<p>SC8.1.1.e Make qualitative and quantitative observations</p>	<p>Weather and Water Investigation 5, Part 1, pp. 152-162 Chemical Interactions Investigation 5, Part 1, p. 153-158</p> <p>Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Mixtures and Solutions Investigation 1, Parts 1-3, pp. 8-24 Landforms Investigation 3, Parts 1-3, pp. 9-24 Populations and Ecosystems Investigation 5, Part 1, pp. 142-150 Planetary Science Investigation 8, Parts 1-4, pp. 250-270 Chemical Interactions Investigation 7, Parts 3-4, pp. 215-228</p>
<p>SC8.1.1.f Record and represent data appropriately and review for quality, accuracy and relevancy</p>	<p>Environments Investigation 3, Parts 1-3, pp. 8-22 Water Planet Investigation 3, Part 1, pp. 125-136 Variables Investigation 1, Parts 2-3, pp. 16-27 Electronics Investigation 6, Part 3, pp. 195-200 Weather and Water Investigation 4, Part 1, pp. 121-130 Force and Motion Investigation 1, Part 2, pp. 57-62</p>
<p>SC8.1.1.g Evaluate predictions, draw logical inferences based on observed patterns/relationships, and account for non-relevant information</p>	<p>FOSS provides the opportunity for teachers to address this standard. See examples below:</p> <p>Solar Energy Investigation 4, Parts 1-3, pp. 8-28 Models and Designs Investigation 4, Parts 1-2, pp. 6-15 Food and Nutrition Investigation 2, Parts 2-3, pp. 18-25 Diversity of Life Investigation 9, Part 2, pp. 278-285 Planetary Science Investigation 5, Parts 2-3, pp. 158-167</p>
<p>SC8.1.1.h Share information, procedures, results, and conclusions with appropriate audiences</p>	<p>FOSS provides the opportunity for teachers to address this standard. See examples below:</p> <p>Living Systems Investigation 3, Parts 1-3, pp. 118-141 Environments Investigation 6, Parts 1-2, pp. 8-17 Chemical Interactions Investigation 5, Part 1, pp. 153-158 Earth History Investigation 4, Part 3, pp. 138-146</p>

<p>SC8.1.1.i Analyze and provide appropriate critique of scientific investigations</p> <p>SC8.1.1.j Use appropriate mathematics in all aspects of scientific inquiry</p> <p>SC8.1.2.a Recognize science is an ongoing process and the scientific community accepts and uses explanations until they encounter new experimental evidence not matching existing explanations</p> <p>SC8.1.2.b Describe how scientific discoveries influence and change society</p> <p>SC8.1.2.c Recognize scientists from various cultures have made many contributions to explain the natural world</p>	<p>Electronics Investigation 1, Part 3, pp. 66-70</p> <p>Variables Investigation 3, Parts 2-4, pp. 14-27</p> <p>Solar Energy Investigation 3, Parts 1-2, pp. 8-23</p> <p>Water Planet Investigation 3, Part 1, pp. 125-135</p> <p>Weather and Water Investigation 5, Part 1, pp. 152-162</p> <p>Human Brain and Senses Investigation 7, Part 2, pp. 219-225</p> <p>Levers and Pulleys Investigation 1, Parts 2-3, pp. 18-28</p> <p>Mixtures and Solutions Investigation 1, Part 2, pp. 16-20</p> <p>Living Systems Investigation 2, Part 1, pp. 85-106</p> <p>Force and Motion Investigation 7, Part 2, pp. 262-266</p> <p>Planetary Science Investigation 8, Parts 3-4, pp. 260-270</p> <p>Populations and Ecosystems Investigation 5, Part 1, pp. 142-150</p> <p>Water Planet Science Resources, p. 15</p> <p>Variables Science Stories, pp. 32-33, 15-20, 4-5</p> <p>Models and Designs Science Stories, pp. 5-9, 44-47</p> <p>Populations and Ecosystems Resources , pp. 45-55</p> <p>Force and Motion Resources , pp. 50-51</p> <p>Models and Designs Science Stories, pp. 44-47</p> <p>Variables Science Stories, pp. 15-20, 32-33</p> <p>Levers and Pulleys Science Stories, pp. 1-4, 23-25, 28-31</p> <p>Chemical Interactions Resources , pp. 84-85</p> <p>Electronics Resources, pp. 34-36</p> <p>Planetary Science Resources, pp. 90-95</p> <p>Variables Science Stories, pp. 4-6, 8-9, 12-14</p> <p>Mixtures and Solutions Science Stories, pp. 5, 9-10, 35-36</p> <p>Food and Nutrition</p>
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<p>SC8.1.3.a Identify problems for technological design</p>	<p>Science Stories, pp. 24-26 Chemical Interactions Resources, pp. 5, 7, 69-72, 81-85 Force and Motion Resources, pp. 50-52</p> <p>Models and Designs Investigation 2, Parts 1-2, pp. 8-21 Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21</p> <p>Electronics Investigation 9, Part 2, pp. 290-297</p> <p>Force and Motion Investigation 8, Part 2, pp. 294-301</p>
<p>SC8.1.3.b Design a solution or product</p>	<p>Models and Designs Investigation 2, Parts 1-2, pp. 8-21 Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21</p> <p>Electronics Investigation 9, Part 2, pp. 290-297</p> <p>Force and Motion Investigation 8, Part 2, pp. 294-301</p>
<p>SC5.1.3.c Implement the proposed solution</p>	<p>Models and Designs Investigation 2, Parts 1-2, pp. 8-21 Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21</p> <p>Electronics Investigation 9, Part 2, pp. 290-297</p> <p>Force and Motion Investigation 8, Part 2, pp. 294-301</p>
<p>SC5.1.3.d Evaluate completed technological designs or products</p>	<p>Models and Designs Investigation 2, Parts 1-2, pp. 8-21 Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21</p> <p>Electronics Investigation 9, Part 2, pp. 290-297</p> <p>Force and Motion Investigation 8, Part 2, pp. 294-301</p>
<p>SC5.1.3.e Communicate the process of technological design</p>	<p>Models and Designs Investigation 2, Parts 1-2, pp. 8-21 Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 8-21</p> <p>Electronics Investigation 9, Part 2, pp. 290-297</p> <p>Force and Motion Investigation 8, Part 2, pp. 294-301</p>
<p>SC8.1.3.f Distinguish between scientific inquiry (asking questions about the natural world) and technological design (using science to solve practical problems)</p>	<p>FOSS provides investigations and readings dealing with both inquiry and technological design. This provides the opportunity for teachers to address this standard.</p>

<p>SC8.1.3.g Describe how science and technology are reciprocal</p>	<p>Levers and Pulleys Science Stories, pp. 1-4, 23-25 Variables Science Stories, pp. 8-9, 15-20 Models and Designs Science Stories, pp. 5-9, 54-55 Electronics Resources, pp. 34-36 Planetary Science Resources, pp. 74-79</p>
<p>SC8.1.3. h Recognize that solutions have intended and unintended consequences</p>	<p>Variables Science Stories, pp. 15-20, 32-33 Solar Energy Science Stories, pp. 29-33, 35-39 Models and Designs Science Stories, pp. 29-36 Chemical Interactions Resources, pp. 7-8 Force and Motion Resources, pp. 73-74</p>
<p>SC8.1.3.i Compare and contrast the reporting of scientific knowledge and the reporting of technological knowledge</p>	<p>FOSS provides investigations and readings dealing with both inquiry and technological design. This provides the opportunity for teachers to address this standard.</p>

SC K-12.2 Comprehensive Science Standard – Physical Science

Students will integrate and communicate the information, concepts, principles, processes, theories, and models of the Physical Sciences to make connections with the natural and engineered world.

STANDARD	FOSS INVESTIGATION
<p>SC8.2.1.a Compare and contrast elements, compounds, and mixtures</p>	<p>Mixtures and Solutions Investigation 1, Parts 1-2, pp. 8-20 Investigation 4, Parts 1-3, pp. 8-24 Science Stories, pp. 1-6, 25-28 Chemical Interactions Investigation1, Parts 1-2, pp. 41-58 Investigation 2, Parts 1-2, pp. 70-80 Investigation 8, Part 1, pp. 248-255 Investigation 9, Parts 1-4, pp. 280-312 Resources, pp. 3-14, 49-52, 63-68</p>
<p>SC8.2.1.b Describe physical and chemical properties of matter</p>	<p>Mixtures and Solutions Investigation 1, Parts 1-3, pp. 8-24 Investigation 3, Parts 1-2, pp. 8-20 Investigation 4, Parts 1-3, pp. 8-24 Science Stories, pp. 1-10, 16-17 Food and Nutrition Investigation 1, Parts 1-2, pp. 8-20 Investigation 2, Parts 2-3, pp. 8-25 Chemical Interactions Entire module. See examples below: Investigation1, Parts 1-2, pp. 41-58</p>

<p>SC8.2.1.c Recognize most substances can exist as a solid, liquid, or gas depending on temperature</p>	<p>Investigation 8, Part 1, pp. 248-255 Investigation 9, Parts 1-54, pp. 280-312 Investigation 10, Parts 1-2, pp. 323-336 Resources, pp. 3-14, 49-52, 63-68 Planetary Science Investigation 8, Parts 3-4, pp. 260-270 Weather and Water Investigation 2, Par 1, pp. 69-75</p>
<p>SC8.2.1.d Compare and contrast solids, liquids, and gasses based on properties of these states of matter</p>	<p>Water Planet Science Resources, pp. 35-27, 67-70 Chemical Interactions Investigation 7, Parts1-5, pp. 204-234 Resources, pp. 42-48 Multimedia, Particles in Solid, Liquid and Gas Weather and Water Investigation 4, Part 2, pp. 131-139 Investigation 5, Parts 2-3, pp. 163-174 CD, Molecules in Solids, Liquids and Gases</p>
<p>SC8.2.1.e Distinguish between physical and chemical change (phase changes, dissolving, burning, rusting)</p>	<p>Water Planet Science Resources, pp. 35-27, 67-70 Chemical Interactions Investigation 7, Parts1-5, pp. 204-234 Resources, pp. 42-48 Multimedia, Particles in Solid, Liquid and Gas</p>
<p>SC8.2.1.f Recognize conservation of matter in physical and chemical changes</p>	<p>Mixtures and Solutions Investigation 1, Parts 1-4, pp. 8-29 Investigation 3, Parts 1-3, pp. 8-24 Investigation 4, Parts 1-3, pp. 8-24 Science Stories, pp. 1-3, 18-19, 23-24, 28 Food and Nutrition Investigation 1, Parts 1-2, pp. 8-20 Investigation 2, Parts 2-3, pp. 8-25 Chemical Interactions Investigation1, Parts 1-2, pp. 41-58 Investigation 5, Part 1, pp. 153-158 Investigation 7, Parts 1-5, pp. 204-234 Investigation 8, Part 1, pp. 248-255 Investigation 9, Parts 1-54, pp. 280-312 Investigation 10, Parts 1-2, pp. 323-336 Resources, pp. 28-31, 38-53, 63-68</p>
<p>SC8.2.1.g Classify substances into similar groups based on physical properties</p>	<p>Mixtures and Solutions Investigation 1, Part 2, pp. 16-20 Chemical Interactions Investigation 9, Parts 1-4, pp. 280-312 Investigation 10, Parts 1-2, pp. 323-336 Resources, pp. 63-68, 71</p>
<p>SC8.2.1.g Classify substances into similar groups based on physical properties</p>	<p>Mixtures and Solutions Investigation 1, Part 4, pp. 25-29 Science Stories, pp. 1-3, 32-42 Food and Nutrition Investigation 1, Parts 1-2, pp. 8-20</p>

	<p>Investigation 2, Parts 2-3, pp. 18-25 Planetary Science Investigation 8, Parts 3-4, pp. 260-270 Chemical Interactions Investigation 1, Parts 1-2, pp. 41-58 Investigation 2, Part 1, pp. 70-74 Investigation 8, part 1, pp. 248-255 Resources, pp. 3-6, 42-48</p>
<p>SC8.2.2.a Describe motion of an object by its position and velocity</p>	<p>Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 6-15 Variables Investigation 1, Parts 1-3, pp. 8-25 Investigation 3, Parts 1-4, pp. 8-27 Levers and Pulleys Investigation 2, Parts 1-4, pp. 8-25 Force and Motion Entire module. See for example: Investigation 1, Parts 1-3, pp. 42-66 Investigation 2, Parts 1-3, pp. 78-99 Investigation 5, Parts 1-4, pp. 169-201 Resources, pp. 3-40</p>
<p>SC8.2.2.b Recognize an object that is not being subjected to a force will continue to move at a constant speed in a straight line or stay at rest (Newton's 1st law)</p>	<p>Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 6-15 Variables Investigation 3, Parts 1-4, pp. 8-27 Investigation 4, Parts 1-3, pp. 8-23 Force and Motion Entire module. See for example: Investigation 5, Parts 1-4, pp. 169-201 Investigation 6, Parts 1-4, pp. 218-245 Resources, pp. 50-74</p>
<p>SC8.2.2.c Compare the motion of objects related to the effects of balanced and unbalanced forces</p>	<p>Models and Designs Investigation 3, Parts 1-3, pp. 8-23 Investigation 4, Parts 1-2, pp. 6-15 Variables Investigation 3, Parts 1-4, pp. 8-27 Investigation 4, Parts 1-3, pp. 8-23 Force and Motion Investigation 6, Parts 1-4, pp. 218-245 Investigation 7, Parts 1-3, pp. 256-272 Investigation 8, Parts 1-2, pp. 284-301 Resources, pp. 50-74</p>
<p>SC8.2.2.d Recognize that everything on or around the Earth is pulled toward the Earth's center by gravitational force</p>	<p>Models and Designs Science Stories, pp. 10, 40-41 Force and Motion Investigation 7, Parts 1-3, pp. 256-272 Resources, pp. 62-69</p>
<p>SC8.2.3.a Recognize that vibrations set up wave-like disturbances that spread away from</p>	

<p>the source (sound, seismic, water waves)</p> <p>SC8.2.3.b Identify that waves move at different speeds in different materials</p> <p>SC8.2.3.c Recognize that light interacts with matter by transmission (including refraction), absorption, or scattering (including reflection)</p> <p>SC8.2.3.d Recognize that to see an object, light from the surface of the object must enter the eye; the color seen depends on the properties of the surface and the color of the available light sources</p> <p>SC8.2.3.e Recognize that heat moves from warmer objects to cooler objects until both reach the same temperature</p> <p>SC8.2.3.f Describe transfer of energy from electrical and magnetic sources to different energy forms (heat, light, sound, and chemical)</p> <p>SC8.2.3.g Recognize all energy is neither created nor destroyed)</p>	<p>Human Brain and Senses Investigation 3, Parts 1-3, pp. 92-110 Resources, pp. 31-35 CD, Optics Bench</p> <p>Human Brain and Senses Investigation 2, Parts 1-3, pp. 67-83 Resources, pp. 29-30, 36-38, 65-66 CD, Vision: How the Eye Looks; How the Eye Works</p> <p>Water Planet Investigation 3, Parts 1-2, pp. 125-144</p> <p>Chemical Interactions Investigation 5, Parts 1-3, pp. 153-171 Resources, pp. 32-37</p> <p>Weather and Water Investigation 4, Parts 1-2, pp. 121-139 Investigation 5, Parts 2-3, pp. 163-174</p> <p>Models and Designs Investigation 2, Parts 1-2, pp. 8-21</p> <p>Electronics Investigation 1, Parts 1-3, pp. 55-70 Investigation 9, Part 2, pp. 290-297 Resources, pp. 1-2</p> <p>Chemical Interactions Investigation 5, Part 3, pp. 165-171 Resources, pp. 32-33, 103</p>
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SC K-12.3 Comprehensive Science Standard – Life Science

Students will integrate and communicate the information, concepts, principles, processes, theories, and models of the Life Sciences to make connections with the natural and engineered world.

STANDARD	FOSS INVESTIGATION
<p>SC8.3.1.a Recognize the levels of organization in living organisms (cells, tissues, organs, organ systems, and organisms)</p>	<p>Food and Nutrition Science Stories, pp. 6-8, 41-50</p> <p>Living Systems Investigation 1, Parts 1-2, pp. 51-65 Investigation 2, Part 1, pp. 85-98 Science Resources, pp. 1-13, 16-20</p> <p>Diversity of Life Investigation 4, Parts 1-2, pp. 133-141 Resources, pp. 9, 27-45</p> <p>Human Brain and Senses Investigation 3, Parts 1-3, pp. 67-83</p>

<p>SC8.3.1.b Recognize that all organisms are composed of one or many cells; that these cells must grow, divide, and use energy; and that all cells function similarly</p>	<p>Resources, pp. 29-30, 65-74</p> <p>Food and Nutrition Science Stories, p. 41</p> <p>Living Systems Investigation 1, Parts 1, pp. 51-59 Science Resources, pp. 1-3</p> <p>Diversity of Life Investigation 3, Parts 1-3, pp. 102-122 Investigation 4, Parts 1-2, pp. 133-141 Investigation 5, Part 3, pp. 165-170 Investigation 6, Part 2, pp. 193-197 Resources, pp. 24-45, 65-70</p>
<p>SC8.3.1.c Recognize specialized cells perform specialized functions in multicellular organisms</p>	<p>Food and Nutrition Science Stories, pp. 41-46</p> <p>Living Systems Investigation 1, Parts 1-3, pp. 51-70 Science Resources, pp. 1-13</p> <p>Diversity of Life Investigation 5, Part 3, pp. 165-170 Investigation 6, Part 2, pp. 193-197 Investigation 7, Part 1, pp. 218-233 Resources, pp. 31-44</p> <p>Human Brain and Senses Investigation 4, Part 2, pp. 129-135 CD, Cow Eye Dissection</p>
<p>SC8.3.1.d Identify the organs and functions of the major systems of the human body and describe ways that these systems interact with each other</p>	<p>Food and Nutrition Science Stories, pp. 6-9, 44-50</p> <p>Living Systems Investigation 1, Parts 1-3, pp. 51-70 Science Resources, pp. 2-13</p> <p>Human Brain and Senses Investigation 2, Parts 1-3, pp. 67-83 Resources, pp. 29-30, 63-74</p>
<p>SC8.3.1.e Describe how plants and animals respond to environmental stimuli</p>	<p>Environments Investigation 2, Parts 2-4, pp. 16-30 Investigation 3, Parts 1-3, pp. 8-22 Investigation 6, Parts 1-2, pp. 8-17</p> <p>Diversity of Life Investigation 9, Part 2, pp. 278-285 Resources, pp. 31-44</p>
<p>SC8.3.2.a Recognize that hereditary information is contained in genes within the chromosomes of each cell</p>	<p>Populations and Ecosystems Investigation 9, Parts 1-4, pp. 262-292 Resources, pp. 46-55</p>
<p>SC8.3.2.b Compare and contrast sexual and asexual reproduction</p>	<p>Environments Investigation 5, Part 3, pp. 19-22 Science Stories, p. 42</p> <p>Diversity of Life Investigation 7, Parts 1-2, pp. 218-225 Resources, pp. 26, 40-44, 53-54, 58-59</p>

<p>SC8.3.3.a Diagram and explain the flow of energy through a simple food web</p>	<p>Environments Science Stories, pp. 38-41 Populations and Ecosystems Investigation 4, Part 2, pp. 122-129 Investigation 5, Parts 2-4, pp.151-1169 Resources, pp. 17-21 CD, Mono Lake Food Web</p>
<p>SC8.3.3.b Compare the roles of producers, consumers and decomposers in an ecosystem</p>	<p>Environments Science Stories, pp. 38-41 Populations and Ecosystems Investigation 4, Part 2, pp. 122-129 Investigation 5, Parts 2-4, pp.151-169 Resources, pp. 17-21</p>
<p>SC8.3.3.c Recognize that producers transform sunlight into chemical energy through photosynthesis</p>	<p>Living Systems Investigation 3, Part 1, pp. 118-125 Science Resources, pp. 31-33 Food and Nutrition Science Stories, p. 43 Environments Science Stories, p. 39 Populations and Ecosystems Investigation 4, Part 2, pp. 122-129 Investigation 5, Part 2, pp. 151-155 Resources, pp. 14-15 Diversity of Life Resources, p. 36</p>
<p>SC8.3.3.d Determine the biotic and abiotic factors that impact the number of organisms an ecosystems can support</p>	<p>Environments Investigation 1, Parts 1-2, pp. 8-19 Investigation 3, Parts 1-2, pp. 8-22 Investigation 6, Parts -1-2, pp. 8-17 Science Stories, pp. 10-17, 43-45 Populations and Ecosystems Investigation 3, Parts 1-3, pp. 90-107 Investigation 4, Part 1, pp. 119--121 Investigation 6, Parts 1-3, pp.179-186 Resources, pp. 6-13</p>
<p>SC8.3.3.e Recognize a population is all the individuals of a species at a given place and time</p>	<p>Environments Investigation 1, Parts 1-2, pp. 8-19 Science Stories, pp. 43-45 Populations and Ecosystems Investigation 2, Parts 1-2, pp. 70-79 Resources, pp. 6-13, 22-29</p>
<p>SC8.3.3.f Identify symbiotic relationships among organisms</p>	<p>Environments Science Stories, pp. 3-4, 6, 53-55 Diversity of Life Resources, pp. 42, 48-49</p>
<p>SC8.3.3.g Identify positive and negative effects of natural and human activity on an ecosystem</p>	<p>Environments Science Stories, pp. 35-37, 43-44, 49-52 Landforms Science Stories, pp. 13-14</p>

<p>SC8.3.4.a Describe how an inherited characteristic enables an organism to improve its survival rate</p> <p>SC8.3.4.b Recognize the extinction of a species is caused by the inability to adapt to an environmental change</p> <p>SC8.3.4.c Use anatomical features of an organism can be used to infer similarities among other organisms</p>	<p>Populations and Ecosystems Investigation 7, pp. 210-215 Resources, pp. 28-29, 31-41</p> <p>Earth History Resources, pp. 64-67</p> <p>Weather and Water Resources, pp. 63-66</p> <p>Populations and Ecosystems Investigation 10, Parts 1-3, pp. 302-317 Resources, pp. 58-61</p> <p>Environments Science Stories, p. 18</p> <p>Populations and Ecosystems Resources, p. 35</p> <p>Planetary Science Resources, pp. 67-68</p> <p>Environments Science Stories, pp. 18-22</p> <p>Diversity of Life Investigation 3, Parts 1-3, pp. 102-122 Resources, pp. 27-30, 31-45, 55-59</p>
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SC K-12.4 Comprehensive Science Standard – Earth and Space Science

Students will integrate and communicate the information, concepts, principles, processes, theories, and models of the Earth and Space Sciences to make connections with the natural and engineered world.

STANDARD	FOSS INVESTIGATION
<p>SC8.4.1.a Describe the components of the solar system (the Sun, planets, moons, asteroids, comets)</p> <p>SC8.4.1.b Describe the relationship between motion of objects in the solar system and the phenomena of day, year, eclipses, phases of the Moon and seasons</p> <p>SC8.4.2.c Describe the effects of gravity on</p>	<p>Water Planet Investigation 1, Part 1, pp. 50-58 Science Resources, pp. 1-13</p> <p>Models and Designs Science Stories, pp. 6-7</p> <p>Solar Energy Science Stories, pp. 40-43</p> <p>Planetary Science Investigation 10, Parts 1-3, pp. 312-324 Resources, pp. 83-89, 101-103 CD, Planet Images</p> <p>Solar Energy FOSS Web, Lunar Calendar</p> <p>Planetary Science Investigation 3, Parts 1-2, pp. 89-98 Investigation 9, Parts 1-4, pp. 283-287 CD, Phases of the Moon, Lunar Calendar, Day/Night Simulation</p> <p>Weather and Water Investigation 3, Parts 2-3, pp. 97-110 Resources, pp. 17-19 CD, Cycles: Seasons</p> <p>Water Planet</p>

<p>Earth (tides) and the effect of gravity on objects in the solar system</p>	<p>Investigation 1, Part 2, pp. 59-66 Science Resources, pp. 16-17 Models and Designs Science Stories, pp. 10 Solar Energy Science Stories, pp. 42-43 Planetary Science Resources, pp. 69-70, 84-85 Force and Motion Resources, pp. 67-69</p>
<p>SC8.4.2.a Describe the layers of Earth (core, mantle, crust, atmosphere)</p>	<p>Landforms Science Stories, pp. 27-29 Earth History Resources, pp. 100-103</p>
<p>SC8.4.2.b Describe the physical composition of soil</p>	<p>Earth History Investigation 4, Part 2, pp. 132-137</p>
<p>SC8.4.2.c Describe the mixture of gasses in the Earth's atmosphere and how the atmosphere properties change at different elevations</p>	<p>Mixtures and Solutions Science Stories, pp. 20-21 Weather and Water Investigation 2, Parts 1-2, pp. 69-80 Resources, pp. 6-11</p>
<p>SC8.4.2.d Describe evidence of the Earth's magnetic field</p>	
<p>SC8.4.2.e Compare and contrast constructive and destructive forces (deposition, erosion, weathering, plate motion causing uplift, volcanoes, and earthquakes) that impact the Earth's surface</p>	<p>Landforms Investigation 2, Parts 1-2, pp. 8-22 Investigation 3, Parts 1-3, pp. 8-24 Science Stories, pp. 22-29 Earth History Investigation 3, Part 4, pp. 100-111 Investigation 4, Parts 3-4, pp. 138-149 Investigation 8, Part 3, pp. 266-270 Resources, pp. 73-75, 100-103</p>
<p>SC8.4.2.f Describe the rock cycle</p>	<p>Earth History Investigation 8, Part 1, pp. 254-258 Resources, pp. 93-97</p>
<p>SC8.4.2.g Describe the water cycle (evaporation, condensation, precipitation)</p>	<p>Water Planet Investigation 4, Part 1, pp. 184-197 Science Resources, pp. 67-70 Solar Energy Science Stories, pp. 22-24 Weather and Water Investigation 7, Parts 1-2, pp. 232-243 CD, Cycles: Water Cycle</p>
<p>SC8.4.2.h Classify Earth materials as renewable or nonrenewable</p>	<p>Solar Energy FOS Web, Activity: Resource ID Water Planet Investigation 4, Part 4, pp. 212-216 Science Resources, pp. 63-66</p>

<p>SC8.4.3.a Describe how energy from the Sun influences the atmosphere and provides energy for plant growth</p>	<p>Solar Energy Science Stories, pp. 1-2, 22-24</p> <p>Water Planet Investigation 3, Parts 1-2, pp. 125-144 Science Resources, pp. 42-51</p> <p>Environments Investigation 1, Parts 1-2, pp. 8-19 Science Stories, p. 39</p> <p>Weather and Water Investigation 3, Parts 1-3, pp. 93-110 Investigation 4, Part 1, pp. 121-130 Resources, pp. 17-19, 32-33, 53-55</p>
<p>SC8.4.3.b Identify factors that influence daily and seasonal changes on Earth (tilt of the Earth, humidity, air pressure, air masses)</p>	<p>Solar Energy Science Stories, pp. 22-28</p> <p>Water Planet Investigation 4, Parts 2-3, pp. 198-211 Science Resources, pp. 42-61, 71-79</p> <p>Weather and Water Investigation 3, Parts 1-3, pp. 93-110 Investigation 6, Parts 2, 4, pp. 194-199, 206-213 Investigation 8, Parts 1-4, pp. 258-279 Investigation 9, Parts 1-2, pp. 296-310 Resources, pp. 17-19, 32-42, 48-55, 62-63 CD, Climate Factors</p>
<p>SC8.4.3.c Describe atmospheric movements that influence weather and climate (air masses, jet stream)</p>	<p>Solar Energy Science Stories, pp. 22-25</p> <p>Water Planet Investigation 4, Parts 1-3, pp. 184-211 Science Resources, pp. 46-51, 67-79, 84-88</p> <p>Weather and Water Investigation 7, Parts 1-2, pp. 232-243 Investigation 8, Part 2, pp. 265-270 Investigation 9, Parts 1-4, pp. 296-318 Resources, pp. 32-33, 53-55, 84-86</p>
<p>SC8.4.4.a Recognize that the earth processes we see today are similar to those that occurred in the past (uniformity of processes)</p>	<p>Landforms Investigation 2, Parts 1-2, pp. 8-22 Science Stories, pp. 22-29</p> <p>Earth History Investigation 4, Parts 3-4, pp. 138-149 Investigation 5, Parts 3-4, pp. 183-193 Resources, pp. 73-79, 93-97</p>
<p>SC8.4.4.b Describe how environmental conditions have changed through use of the fossil record</p>	<p>Models and Designs Science Stories, pp. 13-16</p> <p>Earth History Investigation 7, Parts 1-2, pp. 234-243 Resources, pp. 76-88 CD, Time Room</p>