

DELTA SCIENCE MODULES III DSM

Grades K-8

Correlated With

WYOMING STANDARDS FOR SCIENCE

and

*WYOMING SCIENCE ACADEMIC
CONTENT STANDARDS FOR STUDENTS
WITH THE MOST SIGNIFICANT
COGNITIVE DISABILITIES (page 22)*



WYOMING

STANDARDS FOR SCIENCE
and
*WYOMING SCIENCE ACADEMIC CONTENT
STANDARDS FOR STUDENTS WITH THE MOST
SIGNIFICANT COGNITIVE DISABILITIES
(beginning on page 22)*

CORRELATED WITH

DSM (Delta Science Module Program)

GRADES K-8

This correlation shows representative examples of investigations and activities from the DSM program that address the Science Content Standards. A citation does not reflect all of the investigations or activities that might address a particular standard or benchmark.

April 2007

GRADE SPAN K- 4

CONTENT STANDARD

1. CONCEPTS AND PROCESSES

In the context of unifying concepts and processes, students develop an understanding of scientific content through inquiry. Science is a dynamic process; concepts and content are best learned through inquiry and investigation.

<i>BENCHMARK GRADE 4</i>	<i>DSM ACTIVITIES</i>
<p style="text-align: center;"><u>Unifying Concepts and Processes</u></p> <p>Concepts in LIFE SYSTEMS and EARTH, SPACE, and PHYSICAL SYSTEMS are taught within the context of the following Unifying Concepts and Processes of Science:</p> <p style="padding-left: 40px;">Systems, classification, order, and organization</p> <p style="padding-left: 40px;">Evidence, models, and explanations</p> <p style="padding-left: 40px;">Cycles and change over time</p>	<p>DSM provides ample opportunity to address these unifying concepts throughout their life, earth, and physical science modules. See for example:</p> <p>Finding the Moon Activity 9-10, pp. 77-91 Reader, pp. 6-10</p> <p>Properties Activity 2-7, pp. 19-60 Reader, pp. 8-13</p> <p>Using Your Senses Activity 1, 5, pp. 13-21, 45-52 Reader, pp. 4-11</p> <p>Butterflies and Moths Activity 11, pp. 97-104 Reader, pp. 9-13</p> <p>Electrical Circuits Activity 1-5, pp. 13-50</p> <p>Dinosaurs and Fossils Activity 9-10, pp. 67-82</p> <p>Investigating Water Activity 5, 7-8, pp. 41-46, 55-69</p> <p>Observing an Aquarium Activity 8-9, pp. 41-46, 79-95</p> <p>Plant and Animal Populations Activity 9-11, pp. 85-110</p> <p>Soil Science Activity 10-12, pp. 91-114</p> <p>Solar System Activity 6-9, pp. 51-81</p> <p>Sound Activity 8-11, pp. 67-98 Reader, pp. 10-11</p> <p>Finding the Moon Activity 9-10, pp. 77-91</p>

<p>2. <u>Life Cycles of Organisms</u>: Students sequence life cycles of living things, and recognize that plants and animals resemble their parents.</p> <p>3. <u>Organisms and Their Environments</u>: Students show connections between living things, their basic needs, and the environment.</p>	<p>Reader, pp. 4-7 Classroom Plants Activity 6-11, pp. 55-104 Reader, pp. 6-13 Food Chains and Webs Activity 2-10, pp. 23-87 Reader, pp. 4-5 Plant and Animal Life Cycles Activity 3-5, 8, pp. 33-56, 75-82</p> <p>Observing an Aquarium Activity 10, pp. 97-107 Reader, pp. 10-11 From Seed to Plant Activity 13, pp. 97-103 Reader, pp. 10-11 Butterflies and Moths Activity 1, 6, 9, 11, pp. 15-21, 53-59, 79-87, 97-104 Reader, pp. 6-13 Classroom Plants Reader, p. 5 Plant and Animal Life Cycles Activity 1-12, pp. 15-101 Reader, pp. 2-10</p> <p>Observing an Aquarium Activity 2-9, pp. 23-95 Reader, pp. 2-9, 12, 14-15 From Seed to Plant Activity 2-8, pp. 21-72 Reader, pp. 4-5, 12, 14-15 Plant and Animal Populations Activity 4-7, 10-12, pp. 43-76, 95-117 Reader, pp. 4-13 Classroom Plants Activity 2-5, pp. 23-53 Food Chains and Webs Activity 1-12, pp. 15-101 Reader, pp. 2-10</p>
<p><u>EARTH, SPACE, AND PHYSICAL SYSTEMS</u></p>	
<p>4. <u>Properties of Earth Materials</u>: Students investigate water, air, rocks, and soils to compare basic properties of earth materials.</p>	<p>Investigating Water Activity 1-2, pp. 13-26 Reader, p. 2 Soil Science Activity 1-4, 7, pp. 15-44, 59-67 Reader, pp. 2-3 Weather Watching Activity 2-5, pp. 21-50 Weather Instruments Activity 1-2, pp. 13-29 Water Cycle</p>

<p>5. <u>Objects in the Sky</u>: Students describe observable objects in the sky and their patterns of movement.</p> <p>6. <u>Changes in Earth and Sky</u>: Students describe observable changes in earth and sky, including rapid and gradual changes to the earth's surface, and daily and seasonal changes in the weather.</p> <p>7. <u>Properties of Objects</u>: Students classify objects by properties that can be observed, measured, and recorded, including color, shape, size, weight, volume, texture, and temperature.</p>	<p>Activity 1, pp. 13-21 Earth Movements Activity 3, pp. 29-37 Reader, p. 15 Food Chains and Webs Activity 1, pp. 15-22</p> <p>Finding the Moon Activity 1, 3-4, 9-10, pp. 13-19, 29-46, 77-91 Reader, pp. 2-10 Sunshine and Shadows Activity 1, 5-7, pp. 13-18, 43-56 Reader, pp. 2, 8-9 Weather Watching Activity 6, 9, 11, pp. 51-59, 77-86, 101-108 Solar System Activity 1-2, 9-12, pp. 13-26, 73-110 Reader, pp. 2-13 Weather Instruments Activity 10, pp. 81-87 Reader, p. 13</p> <p>Finding the Moon Activity 3-4, 9-10, pp. 29-46, 77-91 Sunshine and Shadows Activity 4-7, pp. 33-63 Reader, pp. 8-9 Soil Science Activity 5-6, 12, pp. 45-58, 107-114 Reader, pp. 4-6, 9 Weather Watching Activity 1-12, pp. 13-109 Reader, pp. 2-12 Weather Instruments Activity 1-12, pp. 13-101 Earth Movements Activity 5-12, pp. 47-110 Reader, pp. 2-13 Solar System Activity 9, pp. 73-81 Water Cycle Reader, pp. 8-11</p> <p>How Do We Learn Activity 2-3, pp. 23-35 Reader, pp. 10-11 Properties Activity 2-12, pp. 19-93 Reader, pp. 2-8 Soil Science Activity 1-4, pp. 15-44 Reader, pp. 7-8 States of Matter Activity 1-3, pp. 13-34 Reader, pp. 2-6 Magnets</p>
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<p>8. <u>Changes in States of Matter</u>: Students demonstrate that the processes of heating and cooling can change matter from one state to another.</p> <p>9. <u>Physical Phenomena</u>: Students investigate physical phenomena commonly encountered in daily life, including light, heat, electricity, sound, and magnetism.</p> <p>10. <u>Position and Motion of Objects</u>: Students demonstrate that pushing and pulling can change the position and motion of objects.</p>	<p>Activity 2-3, pp. 19-28 Weather Instruments Activity 1-3, pp. 13-36 Electrical Circuits Activity 6-7, pp. 51-62</p> <p>Investigating Water Activity 9-11, pp. 71-94 Reader, pp. 6-11 Properties Reader, p. 15 Weather Watching Activity 6, pp. 51-59 Reader, pp. 4-5 States of Matter Activity 4, 7-12, pp. 35-40, 57-97 Reader, pp. 7-10 Weather Instruments Activity 9, 11, pp. 75-80, 89-96 Reader, p. 6 Water Cycle Activity 4-13, pp. 39-114 Reader, pp. 8-11</p> <p>Properties Activity 11, pp. 81-86 Reader, p. 8 Sound Activity 1-12, pp. 13-105 Reader, pp. 2-15 Electrical Circuits Activity 1-2, pp. 13-101 Reader, pp. 2-15 Magnets Activity 1-12, pp. 13-81 Reader, pp. 2-15</p> <p>Investigating Water Activity 5-6, pp. 41-54 Properties Activity 6, 10-11, pp. 47-52, 75-86 Force and Motion Activity 1-12, pp. 13-117 Reader, pp. 2-15 Sink or Float Activity 1, pp. 13-19 Reader, pp. 8-11 Weather Watching Activity 4-5, pp. 37-50 Weather Instruments Activity 4-5, pp. 37-50 Magnets Activity 1-6, pp. 13-45</p>
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GRADE SPAN K- 4

CONTENT STANDARD

2. SCIENCE AS INQUIRY

Students demonstrate knowledge, skills, and habits of mind necessary to safely perform scientific inquiry. Inquiry is the foundation for the development of content, teaching students the use of processes of science that enable them to construct their own knowledge. Inquiry requires appropriate field, classroom, and laboratory experiences with suitable facilities and equipment.

<i>BENCHMARK GRADE 4</i>	<i>DSM ACTIVITIES</i>
<p>1. Students research answers to science questions and present findings through appropriate means.</p> <p>2. Students use the inquiry process to conduct scientific investigations.</p> <p style="padding-left: 20px;">A. Collect and organize data</p> <p style="padding-left: 20px;">B. Use data to construct simple graphs, charts, diagrams, and/or models</p>	<p>The DSM Program has a ‘Connections” page after each activity that contains a variety of additional activities many of which require student research and reporting back to the class.</p> <p>Students conduct inquiry-based investigations in all DSM modules. See for example:</p> <p>Investigating Water Activity 5, 10-11, pp. 41-46, 81-94</p> <p>How Do We Learn Activity 8-11, pp. 65-93</p> <p>Properties Activity 6-7, pp. 47-60</p> <p>Classroom Plants Activity 5, pp. 47-53</p> <p>Plant and Animal Populations Activity 8-11, pp. 77-110</p> <p>Electrical Circuits Activity 6-7, pp. 51-62</p> <p>Weather Instruments Activity 1, 6, pp. 13-21, 51-57</p> <p>Investigating Water Activity 5, 10-11, pp. 41-46, 81-94</p> <p>How Do We Learn Activity 8-11, pp. 65-93</p> <p>Properties Activity 6-7, pp. 47-60</p> <p>Classroom Plants Activity 5, pp. 47-53</p> <p>Plant and Animal Populations Activity 8-11, pp. 77-110</p> <p>Electrical Circuits Activity 6-7, pp. 51-62</p> <p>Weather Instruments Activity 1, 6, pp. 13-21, 51-57</p>

<p>C. Draw conclusions and accurately communicate results, making connections to daily life</p> <p>D. Pose or identify questions and make Predictions</p> <p>E. Conduct investigations to answer questions and check predictions</p> <p>3. Students identify and use appropriate scientific equipment</p>	<p>Dinosaurs and Fossils Activity 6-7, pp. 47-60</p> <p>Investigating Water Activity 7-8, pp. 55-69</p> <p>From Seed to Plant Activity 6-8, pp. 53-77</p> <p>Sunshine and Shadows Activity 5-11, pp. 43-88</p> <p>States of Matter Activity 7-11, pp. 57-96</p> <p>Force and Motion Activity 3-6, pp. 31-64</p> <p>Magnets Activity 2-4, pp. 19-34</p> <p>Sound Activity 8-11, pp. 67-98</p> <p>Food Chains and Webs Activity 2-3, pp. 23-37</p> <p>Properties Activity 10-11, pp. 75-86</p> <p>Investigating Water Activity 9-10, pp. 71-88</p> <p>Sink or Float Activity 10, pp. 81-88</p> <p>States of Matter Activity 4, pp. 35-40</p> <p>Water Cycle Activity 5, 13, pp. 45-51, 107-114</p> <p>Sound Activity 9-11, pp. 73-98</p> <p>Electrical Circuits Activity 6, 8, pp. 51-55, 63-70</p> <p>Properties Activity 10-11, pp. 75-86</p> <p>Investigating Water Activity 9-10, pp. 71-88</p> <p>Sink or Float Activity 10, pp. 81-88</p> <p>States of Matter Activity 4, pp. 35-40</p> <p>Water Cycle Activity 5, 13, pp. 45-51, 107-114</p> <p>Sound Activity 9-11, pp. 73-98</p> <p>Electrical Circuits Activity 6, 8, pp. 51-55, 63-70</p> <p>Properties Activity 6-7, pp. 47-60</p> <p>How Do We Learn Activity 5, 10-12, pp. 43-49, 81-93</p> <p>Investigating Water Activity 2, pp. 21-26</p>
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<p>4. Students properly use safety equipment and recognize hazards and safety symbols while practicing standard safety procedures.</p>	<p>States of Matter Activity 6-7, 11, pp. 51-56, 89-96</p> <p>Force and Motion Activity 1-6, pp. 13-57</p> <p>Weather Watching Activity 2-7, pp. 21-68</p> <p>Weather Instruments Activity 1-5, pp. 13-50</p> <p>Solar System Activity 3-8, pp. 27-72</p> <p>Electrical Circuits Activity 1-7, pp. 13-62</p> <p>Safety is stressed in all DSM modules. A classroom safety section is included in the Teacher Resource section of each Teacher Guide. In addition, safety warnings are listed throughout the guides where appropriate. See for example:</p> <p>Sunshine and Shadows Activity 2, p. 23</p> <p>Investigating Water Activity 1, p. 15</p> <p>States of Matter Activity 10, p. 82</p> <p>Using Your Senses Activity 2, p. 25</p> <p>Magnets Activity 2, p. 20</p> <p>Electrical Circuits Activity 3, p. 30</p>
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GRADE SPAN K- 4

CONTENT STANDARD

HISTORY AND NATURE OF SCIENCE IN PERSONAL AND SOCIAL DECISIONS

Students recognize the nature of science, its history, and its connections to personal, social, economic, and political decisions. Historically, scientific events have had significant impacts on our cultural heritage.

<i>BENCHMARK GRADE 4</i>	<i>DSM ACTIVITIES</i>
<p>1. Students recognize the nature and history of science.</p> <p>A. Discuss how scientific ideas change over time</p>	<p>DSM modules provide the opportunity to address this benchmark. See for example:</p> <p>Finding the Moon Reader, p. 14</p>

	<p>Activity 12, Science and Language Arts, p. 100 Reader, p. 15</p> <p>Soil Science Activity 12, Science, Technology and Society, p. 114</p> <p>Water Cycle Reader, p. 15</p> <p>Plant and Animal Life Cycles Activity 7, Science, Technology and Society, p. 73</p>
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GRADE SPAN 5 - 8

CONTENT STANDARD

1. CONCEPTS AND PROCESSES

In the context of unifying concepts and processes, students develop an understanding of scientific content through inquiry. Science is a dynamic process; concepts and content are best learned through inquiry and investigation.

<i>BENCHMARK GRADE 8</i>	<i>DSM ACTIVITIES</i>
<p>UNIFYING CONCEPTS AND PROCESSES</p> <p>Concepts in LIFE SYSTEMS and EARTH, SPACE, and PHYSICAL SYSTEMS are taught within the context of the following Unifying Concepts and Processes of Science:</p> <p>Systems, classification, order and organization</p> <p>Evidence, models, and explanations</p>	<p>DSM provides ample opportunity to address these unifying concepts throughout their life, earth, and physical science modules. See for example:</p> <p>You and Your Body Activity 4, 6, pp. 33-39, 49-54 Reader, pp. 2-11</p> <p>Weather Forecasting Activity 10, pp. 75-80</p> <p>Rocks and Minerals Activity 7-10, pp. 55-84 Reader, pp. 9-13</p> <p>Matter and Change Activity 4-5, pp. 37-51 Reader, pp. 2-8</p> <p>Earth, Moon and Sun Activity 8-12, pp. 71-119 Reader, pp. 2-4, 6-7</p> <p>Earth Processes Activity 14, pp. 121-129</p> <p>Astronomy Activity 5, p. 51-60</p> <p>Color and Light Activity 2-7, pp. 19-67</p> <p>Erosion Activity 5-12, pp. 43-104</p> <p>Flight and Rocketry Activity 8-9, pp. 81-97 Reader, pp. 7-11</p> <p>Earth Processes Activity 7-9, pp. 63-87 Reader, pp. 4-10</p> <p>Matter and Change Activity 11-13, pp. 93-109 Reader, pp. 9-12</p> <p>Newton's Toy Box</p>

<p>Change, constancy, and measurement</p>	<p>Activity 7-9, pp. 49-65 DNA-From Genes to Proteins Activity 4-6, pp. 31-38</p> <p>Simple Machines Activity 1-8, pp. 13-69</p> <p>Pollution Activity 7, 10, pp. 53-58, 71-76</p> <p>Erosion Activity 4-8, pp. 37-73 Reader, pp. 4-13</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65 Reader, pp. 10-13</p> <p>Matter and Change Activity 1-2, pp. 13-27</p> <p>Earth, Moon and Sun Activity 8-12, pp. 71-119 Reader, pp. 8-12</p>
<p>Evolution and equilibrium</p>	<p>Oceans Activity 102-12, pp. 113-142 Reader, p. 9</p> <p>Matter and Change Activity 11, pp. 93-97</p> <p>Newton's Toy Box Activity 10, 13, pp. 67-72, 85-90</p> <p>Earth Processes Activity 11, pp. 97-103</p> <p>Earth, Moon and Sun Activity 12, pp. 111-119 Reader, pp. 16-17</p>
<p>Form and function</p>	<p>Flight and Rocketry Activity 6-7, pp. 65-80</p> <p>You and Your Body Activity 1, 4, 6-8, pp. 13-18, 33-39, 49-66</p> <p>Oceans Activity 10-12, pp. 113-142 Reader, p. 12</p> <p>Plants in Our World Activity 2, 4</p> <p>Newton's Toy Box Activity 4, pp. 33-38 Reader, pp. 16-21</p> <p>Earth Processes Activity 9, pp. 81-87</p>
<p><u>LIFE SYSTEMS</u></p>	
<p>1. <u>Levels of Organization in Living Systems:</u> Students model the cell as the basic unit of a living system. They realize that all the functions that sustain life act within a single cell and cells differentiate into specialized cells, tissues, organs, and organ systems.</p>	<p>You and Your Body Activity 1-2, 4, 6-8, pp. 13-25, 33-39, 49-66 Reader, P. 2-11</p> <p>DNA-From Genes to Proteins Activity 3-4, pp. 25-40 Reader, pp. 2-14</p> <p>Plants on Our World</p>

<p>2. <u>Reproduction and Heredity</u>: Students describe reproduction as a characteristic of all living systems, which is essential to the continuation of species, and identify and interpret traits, patterns of inheritance, and the interaction between genetics and environment.</p> <p>3. <u>Evolution as a Theory</u>: Students explain evolution as a theory and apply the theory to the diversity of species, which results from natural selection and the acquisition of unique characteristics through biological adaptation.</p> <p>4. <u>Diversity of Organisms</u>: Students investigate the interconnectedness of organisms, identifying similarity and diversity of organisms through a classification system of hierarchical relationships and structural homologies.</p> <p>5. <u>Behavior and Adaptation</u>: Students recognize behavior as a response of an organism to an internal or environmental stimulus and connect the characteristics and behaviors of an organism to biological adaptation.</p> <p>6. <u>Interrelationships of Populations and Ecosystems</u>: Students illustrate populations of organisms and their interconnectedness within an ecosystem, identifying relationships among producers, consumers, and decomposers.</p>	<p>Activity 1-2, 4, pp. 13-35, 41-47 Reader, p. 2</p> <p>DNA-From Genes to Proteins Activity 1-2, pp. 13-24 Activity 1, Science Challenge, p. 17 Activity 3, Science Challenge, p. 29 Activity 3, Science Extension, p. 29 Reader, pp. 12-20</p> <p>DNA-From Genes to Proteins Activity 2, Science Challenge, p. 24 Plants in Our World Activity 1, Science Challenge, p. 25</p> <p>Oceans Activity 10-12, pp. 113-142 Reader, p. 12-13 Plants in Our World Reader, pp. 2-8, 23</p> <p>Oceans Activity 10-12, pp. 113-142 Reader, p. 12-13 You and Your Body Activity 3, pp. 27-31 Plants in Our World Activity 3, pp. 35-40</p>
<u>EARTH, SPACE, AND PHYSICAL SCIENCE</u>	
<p>7. <u>The Earth in the Solar System</u>: Students describe Earth as the third planet in the Solar System and understand the effects of the sun as a major source of energy, gravitational forces, and motions of objects in the Solar System.</p> <p>8. <u>The Structure of the Earth System</u>: Students examine the structure of the Earth, identifying layers of the Earth, considering plate movement and its effect, and recognizing landforms resulting from constructive and destructive forces.</p>	<p>Earth, Moon and Sun Activity 3-12, pp. 21-119 Reader, pp. 2-19 Astronomy Activity 5-6, pp. 51-58 Reader, pp. 2-7</p> <p>Rocks and Minerals Reader, p. 2 Oceans Activity 1, 4, pp. 13-21, 43-54 Reader, pp. 4-6 Erosion</p>

<p>9. <u>The Earth's History</u>: Students systematize the Earth's history in terms of geologic evidence, comparing past and present Earth processes and identifying catastrophic events and fossil evidence.</p> <p>10. <u>The Structure and Properties of Matter</u>: Students identify characteristic properties of matter such as density, solubility, and boiling point and understand that elements are the basic components of matter.</p> <p>11. <u>Physical and Chemical Changes in Matter</u>: Students evaluate chemical and physical changes, recognizing that chemical change forms compounds with different properties and that physical change alters the appearance but not the composition of a substance.</p> <p>12. <u>Forms and Uses of Energy</u>: Students investigate energy as a property of substances in a variety of forms with a range of uses.</p> <p>13. <u>The Conservation of Matter and Energy</u>: Students identify supporting evidence to explain conservation of matter and energy, indicating that matter or energy cannot be created or destroyed but is transferred from one object to another.</p>	<p>Activity 9-12, pp. 75-104 Reader, pp. 2-13 Earth Processes Activity 1-8, 10-14, pp. 13-79, 89-129 Reader, pp. 2-15</p> <p>Rocks and Minerals Reader, p.15 Earth Processes Activity 1, 3-5, 14, pp. 13-21, 29-54, 121-129 Reader, pp. 4-7, 22</p> <p>Flight and Rocketry Activity 1, pp. 13-21 Oceans Activity 3, pp. 31-41 Rocks and Minerals Activity 1, 3-7, pp. 13-19, 29-59 Reader, pp. 3-6 Matter and Change Activity 1-5, pp. 13-51 Reader, pp. 2-8, 13-15</p> <p>Oceans Activity 2-3, pp. 23-41 Matter and Change Activity 2-3, 11-13, pp. 21-35, 93-109 Reader, pp. 13-20</p> <p>Color and Light Activity 1-10, pp. 13-91 Reader, pp. 2-9 Electromagnetism Activity 1-11, pp. 13-83 Reader, pp. 2-13 Electrical Connections Activity 1-4, pp.13-42 Newton's Toy Box Activity 10, pp. 67-72 Matter and Change Reader, pp. 18-19</p> <p>Flight and Rocketry Activity 9, 12, pp. 91-97, 121-130 Reader, pp. 10-13 Electromagnetism Activity 6-10, pp. 43-76 Reader, pp. 4-5, 8-13 Matter and Change Activity 5,7, pp. 45-51, 63-68 Reader, pp. 17-18 Electrical Connections Activity 1-3, pp. 13-34 Reader, pp. 14-16</p>
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<p>14. <u>Effects of Motions and Forces</u>: Students describe motion of an object by position, direction, and speed, and identify the effects of force and inertia on an object.</p>	<p>Flight and Rocketry Activity 2-4, 8-12, pp. 23-54, 81-130 Reader, pp. 3-11</p> <p>Simple Machines Activity 1-12, pp. 13-95 Reader, pp. 2-11</p> <p>Newton’s Toy Box Activity 1-13, pp. 13-90 Reader, pp. 4-13</p> <p>Earth, Moon and Sun Activity 12, pp. 111-119 Reader, pp. 8-19</p>
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GRADE SPAN 5 - 8

CONTENT STANDARD

2. SCIENCE AND INQUIRY

Students demonstrate knowledge, skills, and habits of mind necessary to perform scientific inquiry. Inquiry is the foundation for the development of content, teaching students the use of processes of science that enable them to construct and develop their own knowledge. Inquiry requires appropriate field, classroom, and laboratory experiences with suitable facilities and equipment.

<i>BENCHMARK GRADE 8</i>	<i>DSM ACTIVITIES</i>
<p>1. Students research scientific information and present findings through appropriate means.</p> <p>2. Students use inquiry to conduct scientific investigations.</p> <ul style="list-style-type: none"> • Ask questions that lead to conducting an investigation 	<p>The DSM Program has a ‘Connections” page after each activity that contains a variety of additional activities many of which require student research and reporting back to the class.</p> <p>Students conduct inquiry-based investigations in all DSM modules. See for example:</p> <p>You and Your Body Activity 3, 5, pp. 27-31, 41-48</p> <p>Pollution Activity 10, pp. 71-76</p> <p>Erosion Activity 5-8, pp. 43-73</p> <p>Simple Machines Activity 3-4, pp. 25-37</p> <p>Newton’s Toy Box Activity 7-9, pp. 49-65</p> <p>Matter and Change Activity 11-2, pp. 93-104</p> <p>Plants on Our World Activity 3, pp. 35-40</p>

<ul style="list-style-type: none"> • Collect, organize, and analyze and appropriately represent data 	<p>You and Your Body Activity 3, 5, pp. 27-31, 41-48</p> <p>Simple Machines Activity 1-4, pp. 13-37</p> <p>Color and Light Activity 2-3, pp. 19-35</p> <p>Electromagnetism Activity 6, pp. 43-48</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Electrical Connections Activity 8-9, pp. 67-80</p> <p>Matter and Change Activity 1-2, pp. 13-27</p> <p>Plants in Our World Activity 3, pp. 35-40</p>
<ul style="list-style-type: none"> • Draw conclusions based on evidence and make connections to applied scientific concepts 	<p>Pollution Activity 10, pp. 71-76</p> <p>Erosion Activity 4-8, pp. 37-73</p> <p>Electromagnetism Activity 6, pp. 43-48</p> <p>Flight and Rocketry Activity 8, 12, pp. 81-89, 121-140</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Matter and Change Activity 1-2, 11-3, pp. 13-27, 93-109</p> <p>Electrical Connections Activity 8-9, pp. 67-80</p>
<ul style="list-style-type: none"> • Clearly and accurately communicate the result of the investigation 	<p>You and Your Body Activity 3, 5, pp. 27-31, 41-48</p> <p>Simple Machines Activity 1-4, pp. 13-37</p> <p>Color and Light Activity 2-3, pp. 19-35</p> <p>Electromagnetism Activity 6, pp. 43-48</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Electrical Connections Activity 8-9, pp. 67-80</p> <p>Matter and Change Activity 1-2, pp. 13-27</p> <p>Plants in Our World Activity 3, pp. 35-40</p>
<p>3. Students clearly and accurately communicate the result of their own work, as well as information obtained from other sources.</p>	<p>You and Your Body Activity 3, 5, pp. 27-31, 41-48</p> <p>Simple Machines Activity 1-4, pp. 13-37</p> <p>Color and Light Activity 2-3, pp. 19-35</p> <p>Electromagnetism</p>

GRADE SPAN 5 - 8

CONTENT STANDARD

3. HISTORY AND NATURE OF SCIENCE IN PERSONAL AND SOCIAL DECISIONS

Students recognize the nature of science, its history, and its connections to personal and social decisions. Historically, scientific events have had significant impacts on our cultural heritage.

<i>BENCHMARK GRADE 8</i>	<i>DSM ACTIVITIES</i>
<p>1. Students explore the nature and history of science.</p> <p>A. Students explore how scientific knowledge changes and grows over time, and impacts personal and social decisions.</p> <p>B. Students explore the historical use of scientific information to make personal and social decisions</p>	<p>Electromagnetism Reader, pp. 10-15</p> <p>Simple Machines Reader, p. 12</p> <p>Flight and Rocketry Activity 5, Science and Careers, p. 64 Activity 5, Science, Technology and Society, p. 64</p> <p>Human Body Activity 7, Science, Technology and Society, p. 60 Reader, p. 12-13</p> <p>Newton's Toy Box Activity 1, Science and Social Studies, p. 17</p> <p>Matter and Change Reader, p. 22</p> <p>Earth Processes Reader, p. 21</p> <p>Pollution Reader, pp. 8, 14-15</p> <p>Simple Machines Activity 1, Science and Social Studies, p. 89 Reader, p. 12</p> <p>You and Your Body Activity 4, Science, Technology and Society, p. 59 Reader, p. 12</p> <p>Newton's Toy Box Activity 2, Science, Technology and Society, p. 23 Activity 9, Science and Social Studies, p. 65</p>
<p>2. Students explore how scientific information is used to make decisions.</p> <p>A. The role of science in solving personal, local, and national problems.</p>	<p>Electromagnetism Reader, p. 14</p>

<p>B. Interdisciplinary connections of the sciences and connections to other subject areas and careers in science or technical fields</p> <p>C. Origins and conservation of natural resources, including Wyoming examples</p>	<p>You and Your Body Reader, p. 12</p> <p>Flight and Rocketry Reader, pp. 13-14</p> <p>Erosion Activity 6, Science and Social Studies, p. 57</p> <p>Pollution Activity 7, Science, Technology and Society, p. 58 Reader, pp. 14-15</p> <p>Newton's Toy Box Activity 2, Science, Technology and Society, p. 23 Activity 9, Science, Technology and Society, p. 65</p> <p>Matter and Change Activity 11, Science, Technology and Society, p. 97</p> <p>Oceans Reader, p. 14</p> <p>Erosion Activity 8, Science and Social Studies, p. 72 Reader, p. 14</p> <p>Rocks and Minerals Activity 9, Science and Social Studies, p. 76 Activity 11, Science and Careers, p. 92</p> <p>Matter and Change Activity 9, Science and Careers, p. 83</p> <p>Newton's Toy Box Activity 10, Science and Social Studies, p. 72</p> <p>Rocks and Minerals Reader, p. 11</p> <p>Erosion Reader, p. 14</p> <p>Pollution Reader, p. 2-12</p> <p>Earth Processes Activity 4-6, pp. 39-62 Activity 4, Science, Technology and Society, p. 46 Reader, pp. 6-19</p>
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WYOMING

WYOMING SCIENCE ACADEMIC CONTENT STANDARDS FOR STUDENTS WITH THE MOST SIGNIFICANT COGNITIVE DISABILITIES.

CORRELATED WITH

DSM (Delta Science Module Program)

GRADES K-8

This correlation shows representative examples of investigations and activities from the DSM program that address the Science Content Academic Standards. The DSM correlations listed meet or can be adapted to meet the levels of complexity outlined for students with the most significant cognitive disabilities. A citation does not reflect all of the investigations or activities that might address a particular standard or benchmark.

April 2007

survival within different habitats.

Reader, pp. 2-9, 12, 14-15

From Seed to Plant

Activity 2-8, pp. 21-72

Reader, pp. 4-5, 12, 14-15

Plant and Animal Populations

Activity 4-7, 10-12, pp. 43-76, 95-117

Reader, pp. 4-13

Classroom Plants

Activity 2-5, pp. 23-53

Food Chains and Webs

Activity 4-10, pp. 39-81

Reader, pp. 2-10

EARTH, SPACE, AND PHYSICAL SYSTEMS

4.A.S.1.4 Students describe and compare observable characteristics of water, air, rocks, and soil.

Investigating Water

Activity 1-2, pp. 13-26

Reader, p. 2

Soil Science

Activity 1-4, 7, pp. 15-44, 59-67

Reader, pp. 2-3

Weather Watching

Activity 2-5, pp. 21-50

Weather Instruments

Activity 1-2, pp. 13-29

Water Cycle

Activity 1, pp. 13-21

Earth Movements

Activity 3, pp. 29-37

Reader, p. 15

Food Chains and Webs

Activity 1, pp. 15-22

4.A.S.1.5 Students describe gradual changes to the Earth's surface.

Soil Science

Activity 5-6, 12, pp. 45-58, 107-114

Reader, pp. 4-6, 9

Earth Movements

Activity 5-12, pp. 47-110

Reader, pp. 2-13

4.A.S.1.6 Students demonstrate that heating or cooling can change water between a solid or liquid by measuring and recording different observable physical properties.

Investigating Water

Activity 9-11, pp. 71-94

Reader, pp. 6-11

Properties

Reader, p. 15

Weather Watching

Activity 6, pp. 51-59

Reader, pp. 4-5

States of Matter

Activity 4, 7-12, pp. 35-40, 57-97

Reader, pp. 7-10

Weather Instruments

Activity 9, 11, pp. 75-80, 89-96

Reader, p. 6

Water Cycle

<p>4.A.S.1.7 Students demonstrate that pushing or pulling can change the position of objects.</p>	<p>Activity 4-13, pp. 39-114 Reader, pp. 8-11</p> <p>Investigating Water Activity 5-6, pp. 41-54</p> <p>Properties Activity 6, 10-11, pp. 47-52, 75-86</p> <p>Force and Motion Activity 1-12, pp. 13-117 Reader, pp. 2-15</p> <p>Sink or Float Activity 1, pp. 13-19 Reader, pp. 8-11</p> <p>Weather Watching Activity 4-5, pp. 37-50</p> <p>Weather Instruments Activity 4-5, pp. 37-50</p> <p>Magnets Activity 1-6, pp. 13-45</p>
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GRADE SPAN K- 4

CONTENT STANDARD

2. SCIENCE AS INQUIRY

Students demonstrate knowledge, skills, and habits of mind necessary to safely perform scientific inquiry. Inquiry is the foundation for the development of content, teaching students the use of processes of science that enable them to construct their own knowledge. Inquiry requires appropriate field, classroom, and laboratory experiences with suitable facilities and equipment.

<i>ACADEMIC BENCHMARK GRADE 4</i>	<i>DSM ACTIVITIES</i>
<p>4.A.S.2.1 Students use science reference materials to answer science questions and present findings.</p> <p>2. Students use the inquiry process to conduct simple scientific investigations.</p> <p>4.A.S. 2.2.a Students ask questions about objects or events in the environment.</p>	<p>The DSM Program has a “Connections” page after each activity that contains a variety of additional activities many of which require student research and reporting back to the class. See for example:</p> <p>Soil Science Activity 3, Science and Language Arts, p. 35</p> <p>Food Chains and Webs Activity 2, Science and Health, p. 29</p> <p>DSM Readers would provide a resource for this benchmark.</p> <p>Properties Activity 10-11, pp. 75-86</p> <p>Investigating Water Activity 9-10, pp. 71-88</p> <p>Sink or Float</p>

	<p>Activity 10, pp. 81-88</p> <p>States of Matter</p> <p>Activity 4, pp. 35-40</p> <p>Water Cycle</p> <p>Activity 5, 13, pp. 45-51, 107-114</p> <p>Sound</p> <p>Activity 9-11, pp. 73-98</p> <p>Electrical Circuits</p> <p>Activity 6, 8, pp. 51-55, 63-70</p>
<p>2. Students use the inquiry process to conduct simple scientific investigations.</p> <p>4.A.S.2.2.b Students conduct simple investigations using simple equipment and tools to collect data.</p>	<p>Students conduct inquiry-based investigations in all DSM modules. See for example:</p> <p>Investigating Water</p> <p>Activity 5, 10-11, pp. 41-46, 81-94</p> <p>How Do We Learn</p> <p>Activity 8-11, pp. 65-93</p> <p>Properties</p> <p>Activity 6-7, pp. 47-60</p> <p>Classroom Plants</p> <p>Activity 5, pp. 47-53</p> <p>Plant and Animal Populations</p> <p>Activity 8-11, pp. 77-110</p> <p>Electrical Circuits</p> <p>Activity 6-7, pp. 51-62</p> <p>Weather Instruments</p> <p>Activity 1, 6, pp. 13-21, 51-57</p>
<p>2. Students use the inquiry process to conduct simple scientific investigations.</p> <p>4.A.S. 2.2.c. Students use data to complete a simple graph, chart, diagram, and/or model.</p>	<p>Investigating Water</p> <p>Activity 5, 10-11, pp. 41-46, 81-94</p> <p>How Do We Learn</p> <p>Activity 8-11, pp. 65-93</p> <p>Properties</p> <p>Activity 6-7, pp. 47-60</p> <p>Classroom Plants</p> <p>Activity 5, pp. 47-53</p> <p>Plant and Animal Populations</p> <p>Activity 8-11, pp. 77-110</p> <p>Electrical Circuits</p> <p>Activity 6-7, pp. 51-62</p> <p>Weather Instruments</p> <p>Activity 1, 6, pp. 13-21, 51-57</p> <p>Dinosaurs and Fossils</p> <p>Activity 6-7, pp. 47-60</p>
<p>2. Students use the inquiry process to conduct simple scientific investigations.</p> <p>4.A.S.2.2.d Students communicate results of an investigation.</p>	<p>Investigating Water</p> <p>Activity 7-8, pp. 55-69</p> <p>From Seed to Plant</p>

<p>4.A.S. 2.3 Students identify safety symbols and the associated concept.</p>	<p>Activity 6-8, pp. 53-77 Sunshine and Shadows Activity 5-11, pp. 43-88 States of Matter Activity 7-11, pp. 57-96 Force and Motion Activity 3-6, pp. 31-64 Magnets Activity 2-4, pp. 19-34 Sound Activity 8-11, pp. 67-98 Food Chains and Webs Activity 2-3, pp. 23-37</p> <p>Safety is stressed in all DSM modules. A classroom safety section is included in the Teacher Resource section of each Teacher Guide. In addition, safety warnings are listed throughout the guides where appropriate. See for example:</p> <p>Sunshine and Shadows Activity 2, p. 23 Investigating Water Activity 1, p. 15 States of Matter Activity 10, p. 82 Using Your Senses Activity 2, p. 25 Magnets Activity 2, p. 20 Electrical Circuits Activity 3, p. 30</p>
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GRADE SPAN K- 4

CONTENT STANDARD

HISTORY AND NATURE OF SCIENCE IN PERSONAL AND SOCIAL DECISIONS

Students recognize the nature of science, its history, and its connections to personal, social, economic, and political decisions. Historically, scientific events have had significant impacts on our cultural heritage.

<i>ACADEMIC BENCHMARK GRADE 4</i>	<i>DSM ACTIVITIES</i>
<p>1. Students recognize the nature and history of science.</p> <p>4.A.S. 3.1 Students demonstrate the sequence of events which link a technological advance to their environment.</p>	<p>DSM modules provide the opportunity to address this benchmark. See for example: Classroom Plants Reader, pp. 14-15</p>

<p>2. Students recognize how scientific information is used to make decisions.</p> <p>4.A.S. 3.2 Students identify and perform a task associated with a healthy life style.</p>	<p>Weather Watching Reader, pp. 13-15</p> <p>Sink or Float Activity 9, Science and Social Studies, p. 80</p> <p>Force and Motion Activity 11, Science and Social Studies, p. 109 Reader, pp. 12-14</p> <p>Magnets Reader, pp. 14-15</p> <p>Electrical Circuits Activity 5, Science, Technology and Society, p. 50</p> <p>Using Your Senses Activity 2, Science and Health, p. 36 Activity 9, Science and Health, p. 80</p>
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GRADE SPAN 5 - 8

CONTENT STANDARD

1. CONCEPTS AND PROCESSES

In the context of unifying concepts and processes, students develop an understanding of scientific content through inquiry. Science is a dynamic process; concepts and content are best learned through inquiry and investigation.

ACADEMIC BENCHMARK GRADE 8	DSM ACTIVITIES
<p style="text-align: center;"><u>LIFE SYSTEMS</u></p> <p>8.A.S.1.1 Students relate different organ systems with their specialized function.</p> <p>8.A.S.1.2 Students describe the traits offspring inherit from their parents.</p> <p>8.A.S.1.3 Students describe interconnectedness of diverse organisms within an ecosystem.</p>	<p>You and Your Body Activity 1-2, 4, 6-8, pp. 13-25, 33-39, 49-66 Reader, pp. 2-11</p> <p>Plants on Our World Activity 2, 4, pp. 27-33, 41-47 Reader, pp. 4-8, 13-20</p> <p>DNA-From Genes to Proteins Activity 1-2, pp. 13-24 Reader, pp. 15-20</p> <p>Oceans Activity 10-12, pp. 113-142 Reader, pp. 12-13</p> <p>Plants in Our World Reader, pp. 2-8, 23</p>
<p style="text-align: center;"><u>EARTH, SPACE, AND PHYSICAL SCIENCE</u></p> <p>8.A.S.1.4 Students describe Earth's features in relation to other objects in the Solar System.</p> <p>8.A.S.1.5 Students demonstrate processes which are evidence of formation and development of the Earth.</p> <p>8.A.S.1.6 Students identify physical characteristics of a substance.</p>	<p>Earth, Moon and Sun Activity 3-12, pp. 21-119 Reader, pp. 2-19</p> <p>Astronomy Activity 5-6, pp. 51-68 Reader, pp. 2-7</p> <p>Rocks and Minerals Reader, p.15</p> <p>Earth Processes Activity 1, 3-5, 14, pp. 13-21, 29-54, 121-129 Reader, pp. 4-15, 22</p> <p>Flight and Rocketry Activity 1, pp. 13-21</p> <p>Oceans Activity 3, pp. 31-41</p> <p>Rocks and Minerals Activity 1, 3-7, pp. 13-19, 29-59</p>

<p>8.A.S.1.7 Students demonstrate that pushing and pulling can change the position, direction, and motion of objects.</p>	<p>Reader, pp. 3-6 Matter and Change Activity 1-5, pp. 13-51 Reader, pp. 2-8, 13-15</p> <p>Flight and Rocketry Activity 2-4, 8-12, pp. 23-54, 81-130 Reader, pp. 3-11</p> <p>Simple Machines Activity 1-12, pp. 13-95 Reader, pp. 2-11</p> <p>Newton's Toy Box Activity 1-13, pp. 13-90 Reader, pp. 4-13</p> <p>Earth, Moon and Sun Activity 12, pp. 111-119 Reader, pp. 8-19</p>
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GRADE SPAN 5 - 8

CONTENT STANDARD

2. SCIENCE AND INQUIRY

Students demonstrate knowledge, skills, and habits of mind necessary to perform scientific inquiry. Inquiry is the foundation for the development of content, teaching students the use of processes of science that enable them to construct and develop their own knowledge. Inquiry requires appropriate field, classroom, and laboratory experiences with suitable facilities and equipment.

<i>ACADEMIC BENCHMARK GRADE 8</i>	<i>DSM ACTIVITIES</i>
<p>8.A.S.2.1. Students use science reference materials to answer science questions and present findings.</p> <p>2. Students use inquiry to conduct scientific investigations.</p> <p>8.A.S.2.2.a Students ask questions about objects, organisms, or events in the environment.</p>	<p>The DSM Program has a ‘Connections’ page after each activity that contains a variety of additional activities many of which require student research and reporting back to the class. See examples below:</p> <p>Astronomy Activity 6, Science, Technology and Society, p. 68</p> <p>Plants in Our World, Activity 7, Science, Technology and Society, p. 71</p> <p>DSM readers would also provide a resource for this benchmark.</p> <p>Students conduct inquiry-based investigations in all DSM modules. See for example: You and Your Body Activity 3, 5, pp. 27-31, 41-48</p>

<p>2. Students use inquiry to conduct scientific investigations.</p>	<p>Pollution Activity 10, pp. 71-76 Erosion Activity 5-8, pp. 43-73 Simple Machines Activity 3-4, pp. 25-37 Newton's Toy Box Activity 7-9, pp. 49-65 Matter and Change Activity 11-2, pp. 93-104 Plants on Our World Activity 3, pp. 35-40</p>
<p>8.A.S.2.2.b Students conduct a simple investigation using simple technology and tools to collect and organize data.</p>	<p>You and Your Body Activity 3, 5, pp. 27-31, 41-48 Simple Machines Activity 1-4, pp. 13-37 Color and Light Activity 2-3, pp. 19-35 Electromagnetism Activity 6, pp. 43-48 Newton's Toy Box Activity 7-9, pp. 49-65 Electrical Connections Activity 8-9, pp. 67-80 Matter and Change Activity 1-2, pp. 13-27 Plants in Our World Activity 3, pp. 35-40</p>
<p>2. Students use inquiry to conduct scientific investigations.</p> <p>8.A.S.2.2.c. Students communicate results of an investigation and match connections to daily life.</p>	<p>You and Your Body Activity 3, 5, pp. 27-31, 41-48 Simple Machines Activity 1-4, pp. 13-37 Color and Light Activity 2-3, pp. 19-35 Electromagnetism Activity 6, pp. 43-48 Erosion Activity 11, Science and Social Studies, p. 97 Newton's Toy Box Activity 7-9, pp. 49-65 Activity 11, Science, Technology and Society, p. 77 Electrical Connections Activity 8-9 Matter and Change Activity 1-2, pp. 13-27</p>
<p>8.A.S.2.3 Students identify safety</p>	<p>Safety is stressed in all DSM modules. A</p>

<p>symbols and the associated concept.</p>	<p>classroom safety section is included in the Teacher Resource section of each Teacher Guide. In addition, safety warnings are listed throughout the guides where appropriate. See for example:</p> <p>Electromagnetism Activity 3, p. 28</p> <p>Erosion Activity 7, p. 62</p> <p>Flight and Rocketry Activity 12, p. 126</p> <p>Earth Processes Activity 5, p. 51</p> <p>Matter and Change Activity 13, p. 107</p> <p>Newton’s Toy Box Activity 13, p. 86</p>
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GRADE SPAN 5 - 8

CONTENT STANDARD

3. HISTORY AND NATURE OF SCIENCE IN PERSONAL AND SOCIAL DECISIONS

Students recognize the nature of science, its history, and its connections to personal and social decisions. Historically, scientific events have had significant impacts on our cultural heritage.

<i>ACADEMIC BENCHMARK GRADE 8</i>	<i>DSM ACTIVITIES</i>
<p>1. Students investigate the nature of science and how it impacts personal decisions..</p> <p>8.A.S.3.1 Students identify scientific information related to a task associated with a healthy life style choice.</p> <p>2. Students explore how scientific information is used to make decisions.</p> <p>8.A.S.3.2.a Students identify and perform a task associated with a local problem regarding natural resources.</p> <p>2. Students explore how scientific information is used to make decisions.</p> <p>8.A.S.3.2.b Students group science topics with careers in science.</p>	<p>Human Body Activity 2, Science and Health, p. 25 Activity 3, Science and Health, p. 31 Activity 5, Science, Technology and Society, p. 48 Activity 7, Science, Technology and Society, p. 60</p> <p>Pollution Activity 1-12, pp. 13-88 Reader, pp. 2-15</p> <p>Oceans Reader, p. 14</p>

	<p>Erosion Reader, p. 14</p> <p>Rocks and Minerals Activity 11, Science and Careers, p. 92</p> <p>Matter and Change Activity 9, Science and Careers, p. 83</p> <p>Newton's Toy Box Activity 4, Science and Careers, p. 38</p>
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