



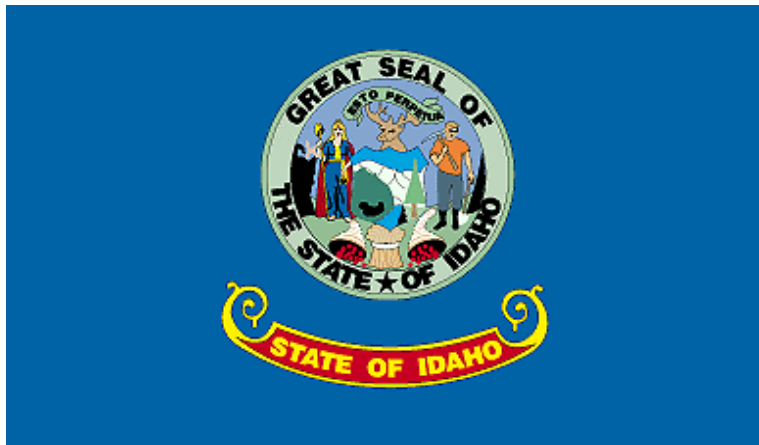
DELTA SCIENCE MODULES III

Grades K-8

CORRELATION TO

IDAHO

SCIENCE CONTENT STANDARDS



Idaho

Science Content Standards

Correlation
to

Delta Science Modules III Program (DSM)

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

Note: Some of the DSM grade 6-8 modules are currently under revision and for those modules correlation to the standards is entered by activity but not page number.

IDAHO SCIENCE CONTENT STANDARDS KINDERGARTEN

Standard 1: Nature of Science

Students explore the process of scientific investigation through observations and collection of data over time. Students follow instructions and work with others.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>No objectives at this grade level.</p> <p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations</p> <p>Objective(s): By the end of Kindergarten, the student will be able to: K.S.1.2.1 Make observations and collect data. (528.01.a)</p> <p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Kindergarten, the student will be able to: K.S.1.3.1 Measure in non-standard units. (528.02.b)</p> <p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>Objective(s): By the end of Kindergarten, the student will be able to: K.S.1.4.1 Apply the concepts of yesterday, today, and tomorrow. (528.03.a)</p> <p>Goal 1.5: Understand Concepts of Form and Function</p>	<p>This objective is addressed in all grade K-1 DSM modules. See for example: Observing an Aquarium Activity 8-9, 11, pp. 79-95, 109-116 Investigating Water Activity 5, 7-8, pp. 41-46, 55-69 Properties Activity 6-7, 10-11, pp. 47-60, 81-93 Finding the Moon Activity 3-8, pp. 29-76</p> <p>How Do We Learn Activity 6-10, pp. 51-86 Properties Activity 6, pp. 47-52 From Seed to Plant Activity 7, pp. 59-66</p> <p>Finding the Moon Activity 3-4, 9, pp. 29-46, 77-84 Observing an Aquarium Activity 10, pp. 97-107 From Seed to Plant Activity 7-8, p. 59-72</p>

<p>No objectives at this grade level.</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Kindergarten, the student will be able to: K.S.1.6.1 Make observations. (529.01.a)</p> <p>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</p> <p>Objective(s): By the end of Kindergarten, the student will be able to: K.S.1.7.1 Use cooperation and interaction skills. (538.01.a)</p> <p>Goal 1.8: Understand Technical Communication</p> <p>Objective(s): By the end of Kindergarten, the student will be able to: K.S.1.8.1 Follow instructions. (538.02.a)</p>	<p>This objective is addressed in all grade K-1 DSM modules. See for example: From Seed to Plant Activity 1-12, pp. 15-96 How Do We Learn Activity 1-8, pp. 13-71 Observing an Aquarium Activity 3-12, pp. 31-125 Investigating Water Activity 1-11, pp. 13-94</p> <p>This objective is a focus of all grade K-1 DSM modules as students work in small groups. See for example: From Seed to Plant Activity 2, pp. 21-31 Sunshine and Shadows Activity 8-12, pp. 65-95 Properties Activity 6-7, pp. 47-60 Investigating Water Activity 7-8, pp. 55-69</p> <p>This objective is addressed in all grade K-1 DSM modules. See for example: Properties Activity 6-9, pp. 47-73 Investigating Water Activity 7-8, pp. 55-69 How Do We Learn Activity 6-11, pp. 51-93 Sunshine and Shadows Activity 8-11, pp. 65-88</p>
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Standard 2: Physical Science

Students use their senses to investigate the organizational patterns in the world around them and describe a variety of objects.

GOALS/OBJECTIVES	DSM
<p>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</p> <p>Objective(s): By the end of Kindergarten,</p>	<p>This objective is a focus of all K-1 DSM</p>

<p>the student will be able to: K.S.2.1.1 Use senses to describe matter. (530.01.a)</p> <p>Goal 2.2: Understand Concepts of Motion and Forces No objectives at this grade level.</p> <p>Goal 2.3: Understand the Total Energy in the Universe is Constant No objectives at this grade level.</p> <p>Goal 2.4: Understand the Structure of Atoms No objectives at this grade level.</p> <p>Goal 2.5: Understand Chemical Reactions No objectives at this grade level.</p>	<p>modules. See for example: How Do We Learn Activity 1-3, pp. 13-35 Reader, pp. 2-6 Properties Activity 1-5, pp. 13-46 Investigating Water Activity 1-6, pp. 13-54 Finding the Moon Activity 8, pp. 71-76</p>
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Standard 3: Biology

Students observe plants and animals and describe their characteristics.

GOALS/OBJECTIVES	DSM
<p>Goal 3.1: Understand the Theory of Biological Evolution</p> <p>Objective(s): By the end of Kindergarten, the student will be able to:</p> <p>K.S.3.1.1 Observe and describe the characteristics of plants and animals. (532.01.a)</p> <p>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</p> <p>Objective(s): By the end of Kindergarten, the student will be able to:</p> <p>K.S.3.2.1 Describe the difference between living and non-living things. (533.01.a)</p>	<p>Observing an Aquarium Activity 3-6, pp. 31-67 Reader, pp. 2-11</p> <p>From Seed to Plant Activity 1, 3-6, 9-10, 12, pp. 15-20, 33-58, 73-84, 91-96 Reader, pp. 2-11</p> <p>DSM activities provide the opportunity to address this objective. See for example: Observing an Aquarium Activity 1-6, pp. 15-67 Reader, pp. 2-12 From Seed to Plant Activity 1-5, pp. 15-52 Reader, pp. 2-12 Properties Activity 1-13, pp. 13-100 Investigating Water</p>

<p>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</p> <p>No objectives at this grade level.</p>	<p>Activity 1-4, pp. 13-40</p>
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Standard 4: Earth and Space Systems

Students make and describe observations of seasonal changes.

GOALS/OBJECTIVES	DSM
<p>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</p> <p>Objective(s): By the end of Kindergarten, the student will be able to:</p> <p>K.S.4.1.1 Name the four seasons. (534.01.a)</p> <p>K.S.4.1.2 Place the four seasons in order. (534.01.a)</p> <p>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System</p> <p>No objectives at this grade level.</p>	

Standard 5: Personal and Social Perspectives; Technology

Students describe local environments

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>Objective(s): By the end of Kindergarten, the student will be able to:</p> <p>K.S.5.1.1 Describe characteristics of a man-made environment (home, school...). (536.01.a)</p> <p>Goal 5.2: Understand the Relationship between Science and Technology</p> <p>No objectives at this grade level.</p> <p>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them</p> <p>No objectives at this grade level.</p>	<p>Observing an Aquarium Activity 2, pp. 23-30 Reader, pp. 2, 13</p> <p>From Seed to Plant Reader, pp. 12-13</p>

IDAHO SCIENCE CONTENT STANDARDS GRADE 1

Standard 1: Nature of Science

Students explore the process of scientific investigation through observations and data collection, using standard and non-standard units of measurement. Students follow multi-step instructions and work with others.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>No objectives at this grade level.</p> <p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.1.2.1 Make observations, collect data, and use data. (543.01.a)</p>	<p>This objective is addressed in all grade one DSM modules. See for example:</p> <p>Investigating Water Activity 5, 7-8, pp. 41-46, 55-69</p> <p>Observing an Aquarium Activity 8-9, 11, 79-95, 109-116</p> <p>Finding the Moon Activity 3-8, pp. 29-76</p> <p>Properties Activity 6-7, 10-11, pp. 47-60, 81-93</p>
<p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.1.3.1 Measure in both standard and non-standard units. (543.02.b)</p>	<p>Properties Activity 6, pp. 47-52</p> <p>From Seed to Plant Activity 7, p. 59-63</p> <p>How Do We Learn Activity 6-12, pp. 51-101</p>
<p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.1.4.1 Explain the concepts of past, present, and future. (543.03.a)</p>	<p>DSM activities provide the opportunity to address this objective. See for example:</p> <p>Sunshine and Shadows Activity 4, 6-7, pp. 23-41, 49-63 Reader, pp. 8-9</p> <p>From Seed to Plant Activity 7-8, pp. 59-72</p>

<p>Goal 1.5: Understand Concepts of Form and Function</p> <p>No objectives at this grade level.</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.1.6.1 Make and record observations. (544.01.a)</p> <p>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.1.7.1 Demonstrate cooperation and interaction skills. (553.01.a)</p> <p>Goal 1.8: Understand Technical Communication</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.1.8.1 Follow multi-step instructions. (553.02.a)</p>	<p>Reader, pp. 10-11</p> <p>Finding the Moon Activity 3-4, 9, pp. 29-46, 77-84</p> <p>Observing an Aquarium Activity 10, pp. 97-107</p> <p>From Seed to Plant Activity 7, pp. 59-66</p> <p>Investigating Water Activity 5, 7-8, pp. 41-46, 55-69</p> <p>Properties Activities 6-7, pp. 47-60</p> <p>Finding the Moon Activity 3-5, pp. 29-54</p> <p>This objective is a focus of all DSM modules as students work in small groups. See for example:</p> <p>From Seed to Plant Activity 2, pp. 21-31</p> <p>Sunshine and Shadows Activity 8-12, pp. 65-95</p> <p>Properties Activity 6-7, pp. 47-60</p> <p>Investigating Water Activity 7-8, pp. 55-69</p> <p>Properties Activity 6-9, pp. 47-73</p> <p>Investigating Water Activity 7-8, pp. 55-69</p> <p>How Do We Learn Activity 6-11, pp. 51-93</p> <p>Sunshine and Shadows Activity 8-11, pp. 65-88</p>
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Standard 2: Physical Science

Students describe properties of common objects and how movement is a change of position.

GOALS/OBJECTIVES	DSM
<p>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.2.1.1 Describe properties of objects. (545.01.a)</p> <p>Goal 2.2: Understand Concepts of Motion and Forces</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.2.2.1 Describe the position and motion of objects. (ex. revolve, rotate, at rest, float, and fall) (545.02.a)</p> <p>Goal 2.3: Understand the Total Energy in the Universe is Constant</p> <p>No objectives at this grade level.</p> <p>Goal 2.4: Understand the Structure of Atoms</p> <p>No objectives at this grade level.</p> <p>Goal 2.5: Understand Chemical Reactions</p> <p>No objectives at this grade level.</p>	<p>How Do We Learn Activity 1-3, pp. 13-35 Reader, pp. 2-6</p> <p>Properties Activity 1-5, pp. 13-46</p> <p>Investigating Water Activity 1-6, pp. 13-54</p> <p>Finding the Moon Activity 8, pp. 71-76</p> <p>Sunshine and Shadows Activity 6-7, pp. 49-63 Reader, pp. 6-11</p> <p>Finding the Moon Activity 3-5, pp. 29-54 Reader, pp. 2-10</p> <p>Observing an Aquarium Activity 8-9, pp. 79-89</p> <p>Investigating Water Activity 3, 6, 8, pp. 27-34, 47-54, 63-69 Reader, pp. 8-12</p>

Standard 3: Biology

Students describe the life cycles of living things and how they survive in their environment.

GOALS/OBJECTIVES	DSM
<p>Goal 3.1: Understand the Theory of Biological Evolution</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.3.1.1 Describe the life cycle of a</p>	<p>From Seed to Plant</p>

<p>plant (seed, growth, reproduction, death). (547.01.a)</p> <p>1.S.3.1.2 Describe the life cycle of an animal (birth, development, reproduction, death). (547.01.a)</p> <p>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.3.2.1 State that living things need food to survive. (548.01.a)</p> <p>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</p> <p>No objectives at this grade level.</p>	<p>Activity 13, pp. 97-103 Reader, pp. 10-11</p> <p>Observing an Aquarium Activity 10, pp. 97-107</p> <p>Observing an Aquarium Activity 2, 7, pp. 23-30, 69-78 Reader, p. 12</p>
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Standard 4: Earth and Space Systems

Students describe characteristics for each season and the cycle of the seasons.

GOALS/OBJECTIVES	DSM
<p>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.4.1.1 Identify the four seasons and their characteristics for a local region. (549.01.a)</p> <p>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System</p> <p>No objectives at this grade level.</p>	

Standard 5: Personal and Social Perspectives; Technology

Students describe characteristics of the local environment.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>Objective(s): By the end of Grade 1, the student will be able to:</p> <p>1.S.5.1.1 Identify the characteristics of local natural environments.</p>	<p>Observing an Aquarium Activity 12, pp. 117-125</p>

(playground, backyard).
(551.01.a)

**Goal 5.2: Understand the Relationship
between Science and Technology**

No objectives at this grade level.

**Goal 5.3: Understand the Importance of
Natural Resources and the Need
to Manage and Conserve Them**

No objectives at this grade level.

Reader, pp. 14-15
From Seed to Plant
Reader, p. 13

IDAHO SCIENCE CONTENT STANDARDS GRADE 2

Students are expected to know content and apply skills from previous grades.

Standard 1: Nature of Science

Students identify questions that can be answered through observation, collection, recording, and analysis of data. Students explain that the shape of an item is determined by its function.

Students follow multi-step instructions, work cooperatively and use communication skills.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>No objectives at this grade level.</p> <p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.1.2.1 Make observations, record and interpret data. (558.01.a)</p>	<p>This objective is addressed in all grade 2 DSM modules. See for example:</p> <p>Weather Watching Activity 3, pp. 29-36</p> <p>Classroom Plants Activity 3-5, pp. 29-53</p> <p>States of Matter Activity 1-2,4, 7, pp. 13-25, 35-40, 57-63</p> <p>Using Your Senses Activity 8-12, pp. 67-103</p>
<p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.1.3.1 Measure in standard and non-standard units. (558.01.b)</p>	<p>Weather Watching Activity 2-3, 7, pp. 13—36, 61-68</p> <p>Force and Motion Activity 1-5, pp. 13-55</p> <p>States of Matter Activity 1-2, 6-7, pp. 13-25, 51-56</p> <p>Classroom Plants Activity 5, pp. 47-53</p>
<p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.1.4.1 Apply the concepts of past, present, and future. (558.03.a)</p>	<p>DSM provides the opportunity to address this objective. See for example:</p> <p>Butterflies and Moths Activity 6, 9, 11, pp. 53-59, 79-87, 97-104</p> <p>Classroom Plants Activity 3-5, pp. 29-53, 87-95</p> <p>Weather Watching</p>

<p>Goal 1.5: Understand Concepts of Form and Function</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.1.5.1 Identify shape and use of objects. (558.04.a)</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.1.6.1 Identify questions to be investigated. (559.01.a)</p> <p>2.S.1.6.2 Make observations. (559.01.b)</p> <p>2.S.1.6.3 Analyze information and evidence. (559.01.d)</p> <p>2.S.1.6.4 Communicate observations. (559.01.f)</p> <p>Goal 1.7: Understand That Interpersonal Relationships Are Important in</p>	<p>Activity 1, pp. 13-19 Soil Science Activity 2-3, 5-6, pp. 21-36, 45-58</p> <p>Sink or Float Activity 2-3, 4-12, pp. 21-34, 35-107 Using Your Senses Activity 1, 5, pp. 13-21, 45-52 Weather Watching Activity 2, 4-5, 7, pp. 21-28, 37-50, 61-68 Butterflies and Moths Activity 10, pp. 89-95</p> <p>These objectives are addressed in all grade 2 DSM modules. See for example:</p> <p>Sink or Float Activity 1-5, pp. 13-51 Plant and Animal Populations Activity 9-11, pp. 85-110 Soil Science Activity 8, 10-12, pp. 69-79, 91-114 Force and Motion Activity 4-5, pp. 41-55</p> <p>Sink or Float Activity 1-5, pp. 13-51 Plant and Animal Populations Activity 9-11, pp. 85-110 Soil Science Activity 8, 10-12, pp. 69-79, 91-114 Force and Motion Activity 4-5, pp. 41-55</p> <p>Using Your Senses Activity 8-12, pp. 67-103 Plant and Animal Populations Activity 8-11, pp. 77-110 Force and Motion Activity 3-7, pp. 31-72 Weather Watching Activity 1-7, pp. 13-68</p> <p>Butterflies and Moths Activity 9-11, pp. 79-104 States of Matter Activity 1-5, pp. 13-50 Soil Science Activity 1-4, pp. 15-44 Classroom Plants Activity 3-5, pp. 29-53</p>
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<p style="text-align: center;">Scientific Endeavors</p> <p>Objective(s): By the end of Grade 2, the student will be able to: 2.S.1.7.1 Practice cooperation and interaction skills. (568.01.a)</p> <p>Goal 1.8: Understand Technical Communication</p> <p>Objective(s): By the end of Grade 2, the student will be able to: 2.S.1.8.1 Follow multi-step instructions. (568.02.a)</p>	<p>This objective is a focus of all DSM modules as students work in small groups. See for example: Using Your Senses Activity 1-2, pp. 13-30 Plant and Animal Populations Activity 9-12, pp. 85-117 Butterflies and Moths Activity 1-3, pp. 15-38 States of Matter Activity 7-12, pp. 57-101</p> <p>Force and Motion Activity 7-9, pp. 65-90 Sink or Float Activity 10-11, pp. 81-96 States of Matter Activity 2-3, pp. 19-34 Using Your Senses Activity 2, 4-5, pp. 23-30, 37-52</p>
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Standard 2: Physical Science

Students describe objects by their properties and explain the affect motion has on an object.

GOALS/OBJECTIVES	DSM
<p>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</p> <p>Objective(s): By the end of Grade 2, the student will be able to: 2.S.2.1.1 List properties of an object. (560.01.a)</p> <p>Goal 2.2: Understand Concepts of Motion and Forces</p> <p>Objective(s): By the end of Grade 2, the student will be able to: 2.S.2.2.1 Explain how force affects the position and motion of objects. (560.01.a)</p>	<p>States of Matter Activity 1-3, pp. 13-34 Reader, pp. 2-6 Soil Science Activity 1-2, 4, pp. 15-27, 37-44 Reader, pp. 7-8 Sink or Float Reader, pp. 5-8</p> <p>Force and Motion Activity 1-12, pp. 13-117 Reader, pp. 2-15 Sink or Float Activity 1, pp. 13-19 Reader, pp. 7-8 Weather Watching</p>

<p>Goal 2.3: Understand the Total Energy in the Universe is Constant</p> <p>No objectives at this grade level.</p> <p>Goal 2.4: Understand the Structure of Atoms</p> <p>No objectives at this grade level.</p> <p>Goal 2.5: Understand Chemical Reactions</p> <p>No objectives at this grade level.</p>	<p>Activity 4-5, pp. 37-50 Reader, p. 7</p>
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Standard 3: Biology

Students list the basic needs of animals.

GOALS/OBJECTIVES	DSM
<p>Goal 3.1: Understand the Theory of Biological Evolution</p> <p>No objectives at this grade level.</p> <p>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.3.2.1 Identify four basic needs of all living things (food, shelter, water, space). (563.01.a)</p> <p>2.S.3.2.2 Discuss how animals are suited to live in different habitats. (547.01.b)</p> <p>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</p> <p>No objectives at this grade level.</p>	<p>Butterflies and Moths Activity 1, 10, pp. 15-21, 89-95 Reader, p. 2</p> <p>Classroom Plants Activity 3-5, 8, pp. 29-53, 73-79 Reader, pp. 3, 7, 9</p> <p>Plant and Animal Populations Activity 4-7, pp. 43-76 Reader, pp. 4, 6, 12-13</p> <p>Plant and Animal Populations Activity 4-7, 10-11, pp. 43-76, 95-110 Reader, pp. 6-7, 10-11</p> <p>Butterflies and Moths Activity 1-2, 5, 8-10, pp. 15-30, 47-52, 71-95 Reader, pp. 4-5</p>

Standard 4: Earth and Space Systems

Students describe weather conditions.

GOALS/OBJECTIVES	DSM
<p>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.4.1.1 Describe the characteristics of different weather conditions. (564.01.b)</p> <p>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System</p> <p>No objectives at this grade level.</p>	<p>Weather Watching Activity 1-10, pp. 13-100 Reader, pp. 2-5, 11-12</p>

Standard 5: Personal and Social Perspectives; Technology

Students compare man-made and natural environments. Students identify scientific tools.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.5.1.1 Compare and contrast man-made and natural environments. (566.01.a)</p> <p>Goal 5.2: Understand the Relationship between Science and Technology</p> <p>Objective(s): By the end of Grade 2, the student will be able to:</p> <p>2.S.5.2.1 Identify tools people have invented for everyday life and for scientific investigations. (565.01.b)</p> <p>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them</p> <p>No objectives at this grade level.</p>	<p>Butterflies and Moths Activity 4, pp. 39-45 Plant and Animal Populations Activity 3-4, pp. 35-50 Reader, pp. 2-5, 8-9 Soil Science Activity 11-12, 99-114 Reader, pp. 10-11 Classroom Plants Activity 12, pp. 105-112 Reader, pp. 3, 15</p> <p>Weather Watching Activity 2-5, pp. 21-50 Reader, pp. 7, 11 States of Matter Activity 6-7, 11, pp. 51-63, 89-96 Using Your Senses Activity 2, pp. 23-30 Reader, pp. 13-15 Classroom Plants Activity 1-4, pp. 15-46</p>

IDAHO SCIENCE CONTENT STANDARDS GRADE 3

Students are expected to know content and apply skills from previous grades.

Standard 1: Nature of Science

Students apply scientific methods to conduct experiments. Students read and give multi-step instructions.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.1.1.1 Label the parts of a system. (573.01.a)</p>	<p>Force and Motion Activity 6-8, pp. 57-82 Reader, p. 6</p> <p>Using Your Senses Activity 1, 5, pp. 13-21, 45-52 Reader, pp. 5, 7, 9, 11</p> <p>Sound Activity 4, pp. 37-43 Reader, pp. 10-11</p> <p>Electrical Circuits Activity 2-4, pp. 19-43 Reader, pp. 4-6</p>
<p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.1.2.1 Make observations, collect data and evaluate it. (573.02.a)</p> <p>3.S.1.2.2 Replicate and/or use models. (573.02.b)</p>	<p>Plant and Animal Populations Activity 9-11, pp. 85-110</p> <p>Classroom Plants Activity 3-5, pp. 29-53</p> <p>Soil Science Activity 10-12, pp. 91-114</p> <p>Weather Instruments Activity 1, 3, 6, pp. 13-21, 31-36, 51-57</p> <p>Using Your Senses Activity 1, 5, pp. 13-21, 45-52</p> <p>Sink or Float Activity 8-12, pp. 67-107</p> <p>Soil Science Activity 6, 11-12, pp. 99-114</p> <p>Sound Activity 4, pp. 37-43</p> <p>Solar System Activity 2, 6, 8, pp. 21-26, 51-58, 65-72</p>
<p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.1.3.1 Measure changes that occur. (573.03.b)</p>	<p>States of Matter Activity 7, 11, pp. 57-63, 89-96</p> <p>Force and Motion</p>

<p>3.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units. (573.03.c)</p> <p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>No objectives at this grade level.</p> <p>Goal 1.5: Understand Concepts of Form and Function</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.1.5.1 Describe the relationship between shape and use. (573.05.a)</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.1.6.1 Identify questions that can be answered by conducting scientific tests. (574.01.a)</p>	<p>Activity 4-5, pp. 41-55 Weather Watching Activity 2-3, pp. 31-36 Classroom Plants Activity 5, pp. 47-53 Weather Instruments Activity 1, 3, 6, pp. 13-21, 31-36, 51-57</p> <p>Weather Watching Activity 2-3, pp. 21-36 States of Matter Activity 6-7, 11, pp. 51-63, 89-96 Solar System Activity 5-6, pp. 43-58 Weather Instruments Activity 1-3, 11, pp. 13-36, 89-96 Dinosaurs and Fossils Activity 6-7, pp. 47-60</p> <p>Butterflies and Moths Activity 10, pp. 89-95 Using Your Senses Activity 1, 5, pp. 13-21, 45-52 Force and Motion Activity 6-11, pp. 57-109 Weather Watching Activity 4, 7, pp. 37-44, 61-68 Dinosaurs and Fossils Activity 8, pp. 61-66 Sound Activity 4, pp. 37-43</p> <p>These objectives are addressed in all grade 3 DSM modules. See for example:</p> <p>Soil Science Activity 7, 10, pp. 59-67, 91-97 Plant and Animal Populations Activity 9-11, pp. 85-110 Classroom Plants Activity 3-5, pp. 29-53 Food Chains and Webs Activity 2-3, pp. 23-37 Electrical Circuits</p>
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<p>3.S.1.6.2 Conduct scientific tests (574.01.b)</p>	<p>Activity 6-7, pp. 51-62</p> <p>Soil Science Activity 7, 10, pp. 59-67, 91-97</p> <p>Plant and Animal Populations Activity 9-11, pp. 85-110</p> <p>Classroom Plants Activity 3-5, pp. 29-53</p> <p>Food Chains and Webs Activity 2-3, pp. 23-37</p> <p>Electrical Circuits Activity 6-7, pp. 51-62</p>
<p>3.S.1.6.3 Use appropriate tools and techniques to gather and display data. (574.01.c)</p>	<p>Weather Watching Activity 2-7, pp. 21-68</p> <p>Force and Motion Activity 1-6, pp. 13-64</p> <p>States of Matter Activity 6-7, 11, pp. 57-63, 89-96</p> <p>Weather Instruments Activity 1-6, pp. 13-57</p> <p>Food Chains and Webs Activity 2-3, pp. 23-37</p>
<p>3.S.1.6.4 Use data to construct a reasonable explanation. (574.01.d)</p>	<p>Force and Motion Activity 4-5, pp. 41-55</p> <p>States of Matter Activity 7, 11, pp. 57-63, 89-96</p> <p>Water Cycle Activity 4, pp. 39-44</p> <p>Food Chains and Webs Activity 2-3, pp. 23-37</p> <p>Electrical Circuits Activity 6-7, pp. 51-62</p>
<p>3.S.1.6.5 Make simple predictions based on data. (574.01.e)</p>	<p>Plant and Animal Populations Activity 10-11, pp. 95-110</p> <p>Sink or Float Activity 10, pp. 81-88</p> <p>Electrical Circuits Activity 6, pp. 51-55</p> <p>Plant and Animal Life Cycles Activity 2, pp. 23-32</p> <p>Water Cycle Activity 13, pp. 107-114</p>
<p>3.S.1.6.6 Identify logical alternative explanations. (574.01.f)</p>	<p>DSM activities provide the opportunity to address this objective. See for example:</p> <p>Sink or Float Activity 2, pp. 21-27</p> <p>Using Your Senses Activity 7, pp. 61-66</p> <p>Water Cycle Activity 13, pp. 107-114</p> <p>Earth Movements Activity 3, pp. 29-37</p> <p>Magnets Activity 11, pp. 71-76</p>
<p>3.S.1.6.7 Communicate the results of</p>	<p>Soil Science</p>

<p>tests to others. (574.01.g)</p> <p>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</p> <p>No objectives at this grade level.</p> <p>Goal 1.8: Understand Technical Communication</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.1.8.1 Read and give multi-step instructions. (583.02.a)</p>	<p>Activity 10-13, pp. 91-114</p> <p>Plant and Animal Populations</p> <p>Activity 8-9, pp. 77-93</p> <p>Classroom Plants</p> <p>Activity 3-5, pp. 29-53</p> <p>Food Chains and Webs</p> <p>Activity 2-3, pp. 23-37</p> <p>Electrical Circuits</p> <p>Activity 6-7, pp. 51-62</p> <p>Force and Motion</p> <p>Activity 7-9, pp. 65-90</p> <p>Sink or Float</p> <p>Activity 10-11, pp. 81-96</p> <p>States of Matter</p> <p>Activity 2-3, pp. 19-34</p> <p>Electrical Circuits</p> <p>Activity 3-5, pp. 27-50</p> <p>Weather Instruments</p> <p>Activity 4-6, pp. 37-57</p>
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Standard 2: Physical Science

Students use scientific instruments to describe the physical properties of the three states of matter.

GOALS/OBJECTIVES	DSM
<p>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.2.1.1 Use instruments to measure properties. (575.01.a)</p> <p>3.S.2.1.2 Identify the physical properties of solids, liquids, and gases. (575.01.b)</p> <p>3.S.2.1.3 Explain that heating and cooling can cause changes of state in common materials.</p>	<p>Weather Watching</p> <p>Activity 2-3, pp. 21-36</p> <p>States of Matter</p> <p>Activity 1-2, 6-7, 11, pp. 13-25, 51-63, 89-96</p> <p>Weather Instruments</p> <p>Activity 1-5, pp. 13-50</p> <p>States of Matter</p> <p>Activity 1-3, p. 13-34</p> <p>Reader, pp. 3-6</p> <p>Water Cycle</p> <p>Reader, p. 8</p> <p>Weather Watching</p> <p>Activity 6, pp. 251-59</p> <p>Reader, pp. 4-5</p> <p>States of Matter</p>

<p style="text-align: center;">(575.01.c)</p> <p>Goal 2.2: Understand Concepts of Motion and Forces</p> <p>No objectives at this grade level.</p> <p>Goal 2.3: Understand the Total Energy in the Universe is Constant</p> <p>3.S.2.3.1 Identify potential and kinetic energy. (590.03.a)</p> <p>Goal 2.4: Understand the Structure of Atoms</p> <p>No objectives at this grade level.</p> <p>Goal 2.5: Understand Chemical Reactions</p> <p>No objectives at this grade level.</p>	<p>Activity 4, 7-12, pp. 35-40, 57-101 Reader, pp. 8-10</p> <p>Weather Instruments Activity 9, 11, pp. 75-80, 89-96 Reader, p. 6</p> <p>Water Cycle Activity 4-5, 11-13, pp. 39-51, 91-114 Reader, pp. 8-11</p> <p>The activities from the modules <u>Force and Motion</u> and the <u>Electrical Circuits</u> provide the opportunity to address this objective though the terms are not directly addressed.</p>
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Standard 3: Biology

Students explore the diversity of plants and animals in their environments. Students demonstrate an understanding of food webs.

GOALS/OBJECTIVES	DSM
<p>Goal 3.1: Understand the Theory of Biological Evolution</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.3.1.1 Describe the adaptations of plants and animals to their environment. (577.01.a)</p> <p>Goal 3.2: Understand the Relationship between Matter and Energy in</p>	<p>Butterflies and Moths Activity 3, 8-10, pp. 31-38, 71-95 Reader, pp. 4-5</p> <p>Plant and Animal Populations Activity 4-7, 10-11, pp. 43-76, 95-110 Reader, pp. 6-7, 10-11</p> <p>Classroom Plants Activity 6-11, pp. 55-104</p> <p>Food Chains and Webs Activity 4-6, pp. 39-58 Reader, pp. 4-5</p> <p>Dinosaurs and Fossils Activity 8, pp. 61-66 Reader, pp. 6-11, 15</p>

Living Systems	
<p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.3.2.1 Describe the energy needed for living systems to survive. (578.01.a)</p> <p>3.S.3.2.2 Compare and contrast the energy requirements of plants and animals. (593.01.a)</p> <p>3.S.3.2.3 Label a food chain that shows how organisms cooperate and compete in an ecosystem. (578.01.b)</p> <p>3.S.3.2.4 Diagram the food web and explain how organisms both cooperate and compete in ecosystems. (593.01.b)</p> <p>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</p> <p>No objectives at this grade level.</p>	<p>Plant and Animal Populations Activity 4-7, 10-12, pp. 43-76, 95-117 Reader, pp. 12-13</p> <p>Classroom Plants Activity 8, pp. 73-79 Reader, p. 9</p> <p>Butterflies and Moths Activity 1, pp. 15-21</p> <p>Food Chains and Webs Activity 3, 10-12, pp. 31-37, 81-101 Reader, pp. 6-9</p> <p>Plant and Animal Populations Activity 4-7, 10-12, pp. 43-76, 95-117 Reader, pp. 12-13</p> <p>Classroom Plants Activity 8, pp. 73-79 Reader, p. 9</p> <p>Butterflies and Moths Activity 1, pp. 15-21</p> <p>Food Chains and Webs Activity 3, 10-12, pp. 31-37, 81-101 Reader, pp. 6-9</p> <p>Plant and Animal Populations Activity 12, pp. 111-117 Reader, pp. 12-13</p> <p>Food Chains and Webs Activity 10-11, pp. 81-95 Reader, p. 7</p> <p>Food Chains and Webs Activity 12, pp. 97-101 Reader, pp. 8-9</p>

Standard 4: Earth and Space Systems

Students explore the relationship between the sun and Earth.

GOALS/OBJECTIVES	DSM
<p>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.4.1.1 Explain the reasons for length of a day, the seasons,</p>	<p>Weather Watching Reader, p. 10</p>

<p style="text-align: center;">and the year on Earth. (594.01.a)</p> <p>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System</p> <p>No objectives at this grade level.</p>	<p>Solar System Activity 9, Science Challenge, p. 81</p>
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Standard 5: Personal and Social Perspectives; Technology

Students identify local environmental issues. Students identify the relationship of tools to scientific investigation.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.5.1.1 Identify local environmental issues. (581.01.a)</p> <p>Goal 5.2: Understand the Relationship between Science and Technology</p> <p>Objective(s): By the end of Grade 3, the student will be able to:</p> <p>3.S.5.2.1 Describe how technology helps develop tools. (580.01.a)</p> <p>3.S.5.2.2 Describe the development of tools over time. (580.01.b)</p> <p>Goal 5.3: Understand the Importance of Natural Resources and the Need</p>	<p>Plant and Animal Populations Reader, p. 15</p> <p>Soil Science Activity 11, pp. 99-105 Reader, PP. 9-11</p> <p>Food Chains and Webs Activity 12, Science, Technology, and Society, p. 101 Reader, p. 12</p> <p>Water Cycle Activity 11, Science, Technology, and Society, p. 98 Reader, pp. 14-15</p> <p>Weather Watching Reader, pp. 6-7, 14-15</p> <p>Using Your Senses Reader, p. 12</p> <p>Force and Motion Reader, pp. 12-14</p> <p>Solar System Activity 2, Science, Technology, and Society, p. 26</p> <p>Electrical Circuits Reader, pp. 10-11</p> <p>Force and Motion Activity 9, pp. 83-96 Activity 11, Science and Social Studies, p. 109</p> <p>Solar System Activity 2, Science and Social Studies, p. 26 Activity 11, Science, Technology, and Society, p. 100</p>

to Manage and Conserve Them

s): By the end of Grade 3, the student will be able to:

3.S.5.3.1 Explain the concept of recycling. [\(581.03.a\)](#)

Soil Science
Reader, p. 12
Water Cycle
Reader, pp. 14-15

IDAHO SCIENCE CONTENT STANDARDS GRADE 4

Students are expected to know content and apply skills from previous grades.

Standard 1: Nature of Science

Students apply scientific methods to conduct experiments, analyze alternative explanations and communicate results of tests. Students analyze and follow multi-step instructions.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.1.1.1 Explain that a system consists of an organized group of related objects that form a whole. (588.01.a)</p>	<p>Food Chains and Webs Activity 12, pp. 97-101 Reader, pp. 6-9</p> <p>Solar System Activity 1-2, pp. 13-26 Reader, pp. 2-13</p> <p>Water Cycle Activity 9, 13, pp. 77-83, 107-114</p> <p>Electrical Circuits Activity 1-5, pp. 13-50 Reader, pp. 4-6, 10-11</p>
<p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.1.2.1 Make and record observations then analyze and communicate the collected data. (588.02.a)</p> <p>4.S.1.2.2 Define observations and inferences. (588.02.b)</p> <p>4.S.1.2.3 Make, describe and/or use models. (588.02.c)</p>	<p>Food Chains and Webs Activity 2-3, pp. 23-37</p> <p>Weather Instruments Activity 1-3, 6, pp. 13-36, 51-57</p> <p>Electrical Circuits Activity 6-7, pp. 51-62</p> <p>Sound Activity 8-11, pp. 67-98</p> <p>DSM activities are inquiry-oriented and provide the opportunity to address this objective.</p>
<p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.1.3.1 Describe how changes occur</p>	<p>Sound Activity 4, pp. 36-43 Reader, p. 11</p> <p>Solar System Activity 2, 6, 8-9, pp. 21-26, 51-58, 65-81</p> <p>Electrical Circuits Activity 5, 10-11</p> <p>Magnets Activity 11, pp. 71-76</p>
<p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.1.3.1 Describe how changes occur</p>	<p>Food Chains and Webs Activity 2, pp. 23-29</p>

<p>and can be measured. (588.03.b)</p> <p>4.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units. (588.03.c)</p> <p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>No objectives at this grade level.</p> <p>Goal 1.5: Understand Concepts of Form and Function</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.1.5.1 Explain the relationship between shape and use. (588.05.a)</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.1.6.1 Write questions that can be answered by conducting scientific tests. (589.01.a)</p> <p>4.S.1.6.2 Conduct scientific tests. (589.01.b)</p> <p>4.S.1.6.3 Use appropriate tools and</p>	<p>Weather Instruments Activity 1-3, 6, pp. 13-16, 51-57</p> <p>Magnets Activity 4, pp. 29-34</p> <p>Food Chains and Webs Activity 2, pp. 23-29</p> <p>Weather Instruments Activity 1, 11, pp. 13-21, 89-96</p> <p>Solar System Activity 5-7, pp. 43-64</p> <p>Dinosaurs and Fossils Activity 6-7, pp. 47-60</p> <p>Sound Activity 4, pp. 37-43</p> <p>Dinosaurs and Fossils Activity 8, pp. 61-66</p> <p>Electrical Circuits Activity 5, 9-11, pp. 45-50, 71-88</p> <p>These objects are addressed in all grade 4 DSM units. See for example:</p> <p>DSM provides the opportunity to write investigative questions. See for example:</p> <p>Food Chains and Webs Activity 2-3, pp. 23-37</p> <p>Magnets Activity 3-4, pp. 25-34</p> <p>Sound Activity 8-11, pp. 67-98</p> <p>Electrical Circuits Activity 6-7, pp. 51-62</p> <p>Food Chains and Webs Activity 2-3, pp. 23-37</p> <p>Magnets Activity 3-4, pp. 25-34</p> <p>Sound Activity 8-11, pp. 67-98</p> <p>Electrical Circuits Activity 6-7, pp. 51-62</p> <p>Food Chains and Webs</p>
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	<p>techniques to gather and display data. (589.01.c)</p> <p>Activity 2-3, pp. 23-37 Magnets Activity 3-4, pp. 25-34 Weather Instruments Activity 1-6, pp. 13-57 Electrical Circuits Activity 6-7, pp. 51-62 Dinosaurs and Fossils Activity 6-7, pp. 47-60</p>
<p>4.S.1.6.4 Use data to construct a reasonable explanation. (589.01.d)</p>	<p>Food Chains and Webs Activity 2-3, pp. 23-37 Magnets Activity 3-4, pp. 25-34 Weather Instruments Activity 1-6, pp. 13-57 Dinosaurs and Fossils Activity 6-7, pp. 47-60</p>
<p>4.S.1.6.5 Make predictions based on data. (589.01.e)</p>	<p>Earth Movements Activity 6, pp. 55-61 Electrical Circuits Activity 6, pp. 51-55 Sound Activity 9-11, pp. 73-98 Water Cycle Activity 13, pp. 107-114</p>
<p>4.S.1.6.6 Analyze alternative explanations. (589.01.f)</p>	<p>DSM activities provide the opportunity to address this objective. See for example: Magnets Activity 1, pp. 13-17 Sound Activity 9-11, pp. 73-98 Dinosaurs and Fossils Activity 8, pp. 61-66 Food Chains and Webs Activity 2, pp. 23-29</p>
<p>4.S.1.6.7 Communicate the results of tests to others in multiple formats. (589.01.g)</p>	<p>Food Chains and Webs Activity 2-3, pp. 23-37 Magnets Activity 4, pp. 29-34 Weather Instruments Activity 6, pp. 51-57 Electrical Circuits Activity 6-7, pp. 51-62 Water Cycle Activity 5, pp. 47-51</p>
<p>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</p>	
<p>No objectives at this grade level.</p>	
<p>Goal 1.8: Understand Technical Communication</p>	
<p>Objective(s): By the end of Grade 4, the</p>	

<p>student will be able to:</p> <p>4.S.1.8.1 Analyze and follow multi-step instructions. (598.02.a)</p>	<p>Electrical Circuits Activity 3-5, pp. 27-50</p> <p>Weather Instruments Activity 4-6, pp. 37-57</p> <p>Solar System Activity 2-5, pp. 21-50</p> <p>Magnets Activity 5, pp. 41-45</p>
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Standard 2: Physical Science

Students use scientific instruments to describe and measure the properties of the three states of matter.

GOALS/OBJECTIVES	DSM
<p>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.2.1.1 Use instruments to measure properties (590.01.a)</p> <p>4.S.2.1.2 Describe the physical properties of solids, liquids, and gases. (590.01.b)</p> <p>4.S.2.1.3 Explain the changes caused by heating and cooling materials. (590.01.c)</p> <p>Goal 2.2: Understand Concepts of Motion and Forces</p> <p>No objectives at this grade level.</p> <p>Goal 2.3: Understand the Total Energy in the Universe is Constant</p> <p>No objectives at this grade level.</p> <p>Goal 2.4: Understand the Structure of Atoms</p> <p>No objectives at this grade level.</p> <p>Goal 2.5: Understand Chemical Reactions</p> <p>No objectives at this grade level.</p>	<p>Weather Instruments Activity 1-5, pp. 13-50</p> <p>Magnets Activity 2, 4, pp. 19-23, 29-34</p> <p>Water Cycle Reader, p. 8</p> <p>Water Cycle Activity 4-5, 11-13, pp. 39-51, 91-114 Reader, pp. 8-11</p> <p>Weather Instruments Activity 9, 11, pp. 75-80, 89-96 Reader, p. 6</p>

Standard 3: Biology

Students analyze how plants and animals adapt to their environments. Students classify vertebrates.

GOALS/OBJECTIVES	DSM
<p>Goal 3.1: Understand the Theory of Biological Evolution</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.3.1.1 Analyze and communicate the adaptations of plants and animals to their environment. (592.01.a)</p> <p>4.S.3.1.2 Describe the difference between vertebrate and invertebrate animals. (592.01.c)</p> <p>4.S.3.1.3 Classify the five groups of vertebrates (mammal, reptiles, amphibians, birds, and fish) based on characteristics. (592.01.c)</p> <p>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</p> <p>No objectives at this grade level.</p> <p>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</p> <p>No objectives at this grade level.</p>	<p>Food Chains and Webs Activity 4-6, pp. 39-58 Reader, pp. 4-5</p> <p>Plant and Animal Life Cycles Activity 4, pp. 43-48 Reader, pp. 4-5</p> <p>Dinosaurs and Fossils Activity 8, pp. 61-66 Reader, pp. 6-11</p> <p>Dinosaurs and Fossils Reader, p. 2</p> <p>Plant and Animal Life Cycles Reader, pp. 7-12</p>

Standard 4: Earth and Space Systems

Students investigate the basic contents of our solar system.

GOALS/OBJECTIVES	DSM
<p>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.4.1.1 Compare and contrast the basic components of our solar system (planets, sun, moon, asteroids, comets,</p>	<p>Solar System Activity 1, 6, 8, 10, pp. 13-20, 51-58, 65-72, 83-92 Reader, pp. 2-13</p>

<p>meteors). (594.01.b)</p> <p>4.S.4.1.2 Explain the effect of gravity on orbits and objects. (594.01.c)</p> <p>4.S.4.1.3 Explain the effect of moon's gravity on Earth's tides. (594.01.c)</p> <p>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System</p> <p>No objectives at this grade level.</p>	<p>Solar System Activity 2, pp. 21-26</p>
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Standard 5: Personal and Social Perspectives; Technology

Students explain how people have invented tools to meet a need or do a job.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>No objectives at this grade level.</p> <p>Goal 5.2: Understand the Relationship between Science and Technology</p> <p>Objective(s): By the end of Grade 4, the student will be able to:</p> <p>4.S.5.2.1 Identify tools used for space exploration and for scientific investigations. (595.01.b)</p> <p>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them</p> <p>No objectives at this grade level.</p>	<p>Solar System Activity 1, Science, Technology, and Society, p. 20 Activity 2, Science, Technology, and Society, p. 26 Reader, p. 15</p> <p>Weather Instruments Activity 1-5, pp. 13-50</p> <p>Dinosaurs and Fossils Activity 6-7, pp. 47-60</p>

IDAHO SCIENCE CONTENT STANDARDS GRADE 5

Students are expected to know content and apply skills from previous grades.

Standard 1: Nature of Science

Students identify the components of a system and explain their relationship to the whole.

Students read, execute, and give technical instructions.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.1.1.1 Compare and contrast different systems. (603.01.a)</p>	<p>You and Your Body Activity 2, 4, 6, pp. 19-25, 33-39, 49-55</p> <p>Flight and Rocketry Activity 8, 12, pp. 81-89, 121-130</p> <p>Color and Light Activity 4-6, pp. 37-59</p> <p>Electromagnetism Activity 6-9, pp. 43-68</p> <p>Simple Machines Activity 7-8, pp. 57-69</p>
<p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanation</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.1.2.1 Use observations and data as evidence on which to base scientific explanations and predictions. (603.02a)</p> <p>5.S.1.2.2 Explain the difference between observation and inference. (603.02.b)</p> <p>5.S.1.2.3 Use models to explain or demonstrate a concept. (603.02.c)</p>	<p>Erosion Activity 6-8, pp. 51-73</p> <p>Pollution Activity 8-10, pp. 59-76</p> <p>You and Your Body Activity 3, 5, pp. 27-31, 41-48</p> <p>Color and Light Activity 2-7, pp. 19-67</p> <p>DSM activities are inquiry-oriented and provide the opportunity to address this objective.</p> <p>Erosion Activity 10-12, pp. 83-104</p> <p>You and Your Body Activity 2, 4, 6, pp. 19-25, 33-39, 49-54</p> <p>Oceans Activity 6-10, pp. 65-124</p> <p>Electromagnetism Activity 7, 9, pp. 49-56, 63-68</p>
<p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.1.3.1 Analyze changes that occur</p>	<p>You and Your Body</p>

<p>in and among systems. (603.03.b)</p> <p>5.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units with an emphasis on the metric system. (603.03.c)</p> <p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>No objectives at this grade level.</p> <p>Goal 1.5: Understand Concepts of Form and Function</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.1.5.1 Explain how the shape or form of an object or system is frequently related to its use or function. (603.05.a)</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.1.6.1 Write and analyze questions that can be answered by conducting scientific experiments. (604.01.a)</p> <p>5.S.1.6.2 Conduct scientific investigations using a control and a variable. (604.01.b)</p>	<p>Activity 5, pp. 41-48 Erosion Activity 10-12, pp. 83-104 Oceans Activity 5, 9, pp. 55-63, 99-111 Flight and Rocketry Activity 8-9, pp. 81-97 Simple Machines Activity 7-8, pp. 57-69</p> <p>Simple Machines Activity 1-6, pp. 13-45 You and Your Body Activity 5, pp. 41-48 Weather Instruments Activity 3, pp. 25-32 Oceans Activity 1, pp. 13-21</p> <p>Oceans Activity 10-11, pp. 113-134 You and Your Body Activity 1-2, 8, pp. 13-25, 61-66 Simple Machines Activity 7-11, pp. 57-89 Flight and Rocketry Activity 2, 4-7, pp. 23-32, 45-80</p> <p>These objectives are addressed in all grade 5 DSM modules. See for example:</p> <p>Color and Light Activity 2-3, pp. 19-35 Electromagnetism Activity 6, pp. 43-48 Pollution Activity 10, pp. 71-76 Erosion Activity 5, 7-8, pp. 43-49, 59-73</p> <p>You and Your Body Activity 5, pp. 41-48 Pollution</p>
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<p>5.S.1.6.3 Select and use appropriate tools and techniques to gather and display data. (604.01.c)</p> <p>5.S.1.6.4 Use evidence to analyze descriptions, explanations, predictions, and models. (604.01.d)</p> <p>5.S.1.6.5 State a hypothesis based on observations. (604.01.e)</p> <p>5.S.1.6.6 Compare alternative explanations and predictions. (604.01.f)</p> <p>5.S.1.6.7 Communicate scientific procedures and explanations. (604.01.g)</p> <p>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</p>	<p>Activity 10, pp. 71-76 Erosion Activity 3, 8, pp. 29-35, 67-73 Electromagnetism Activity 6, pp. 43-48</p> <p>Simple Machines Activity 2-4, pp. 19-37 Weather Forecasting Activity 3, pp. 25-32 Rocks and Minerals Activity 4-6, pp. 35-54 Flight and Rocketry Activity 8, p. 81-89</p> <p>Color and Light Activity 2-6, pp. 19-59 Electromagnetism Activity 6, pp. 43-48 Pollution Activity 10, pp. 71-76 Oceans Activity 2-3, pp. 23-41</p> <p>DSM activities provide the opportunity to address this objective. See for example: You and Your Body Activity 3, 5, pp. 27-31, 41-48 Pollution Activity 10, pp. 71-76 Simple Machines Activity 4, pp. 33-37 Electromagnetism Activity 6, pp. 43-48</p> <p>DSM activities provide the opportunity to address this objective. See for example: Electromagnetism Activity 6, pp. 43-48 Erosion Activity 10-12, pp. 83-104 Oceans Activity 10-12, pp. 113-142 Color and Light Activity 1-3, pp. 13-35</p> <p>You and Your Body Activity 3, 5, pp. 27-31, 41-48 Pollution Activity 10, pp. 71-76 Simple Machines Activity 2-4, pp. 19-37 Electromagnetism Activity 6, pp. 43-48</p>
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<p>No objectives at this grade level.</p> <p>Goal 1.8: Understand Technical Communication</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.1.8.1 Read and follow technical instructions. (613.02.a)</p>	<p>Color and Light Activity 6, 11-12, pp. 53-59, 93-109</p> <p>Rocks and Minerals Activity 7-8, pp. 55-67</p> <p>Pollution Activity 1, pp. 13-17</p> <p>Electromagnetism Activity 3-6, pp. 25-48</p>
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Standard 2: Physical Science

Students explain the difference between an element, a mixture, and a compound.

GOALS/OBJECTIVES	DSM
<p>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.2.1.1 Describe the differences among elements, compounds, and mixtures. (605.01.a)</p> <p>5.S.2.1.2 Compare the physical differences among solids, liquids, and gases. (605.01.c)</p> <p>5.S.2.1.3 Explain the nature of physical change and how it relates to physical properties. (605.01.d)</p>	<p>This objective is addressed in the grade six module <u>Matter and Change</u>.</p> <p>This objective is addressed in the grade six module <u>Matter and Change</u>.</p> <p>This objective is addressed in the grade six module <u>Matter and Change</u>.</p>
<p>Goal 2.2: Understand Concepts of Motion and Forces</p> <p>No objectives at this grade level.</p>	
<p>Goal 2.3: Understand the Total Energy in the Universe is Constant</p> <p>No objectives at this grade level.</p>	
<p>Goal 2.4: Understand the Structure of Atoms</p> <p>No objectives at this grade level.</p>	
<p>Goal 2.5: Understand Chemical Reactions</p> <p>No objectives at this grade level.</p>	

Standard 3: Biology

Students explain the differences between plant and animal cells. Students understand that plants convert energy. Students know that traits are passed from parents to offspring.

GOALS/OBJECTIVES	DSM
<p>Goal 3.1: Understand the Theory of Biological Evolution</p> <p>No objectives at this grade level.</p> <p>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.3.2.1 Communicate how plants convert energy from the sun through photosynthesis. (608.01.a)</p> <p>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.3.3.1 Compare and contrast the structural differences between plant and animal cells. (606.01.b)</p> <p>5.S.3.3.2 Explain the concept that traits are passed from parents to offspring. (606.01.c)</p>	<p>This objective is addressed in the grade six module <u>Plants in Our World</u>.</p> <p>This objective is addressed in the grade six modules <u>Plants in Our World</u> and <u>DNA-From Genes to Proteins</u>.</p> <p>This objective is addressed in the grade six module <u>DNA-From Genes to Proteins</u>.</p>

Standard 4: Earth and Space Systems

Students describe the dynamic changes that occur on Earth.

GOALS/OBJECTIVES	DSM
<p>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.4.1.1 Describe the interactions among the solid earth, oceans and atmosphere (erosion, climate, tectonics and continental drift). (609.01.a)</p> <p>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System</p> <p>Objective(s): By the end of Grade 5, the</p>	<p>Erosion Activity 1-12, pp. 13-104 Reader, pp. 2-13</p> <p>Oceans Activity 5, pp. 55-63 Reader, pp. 4-6</p> <p>Weather Forecasting Activity 12, pp. 87-93 Reader, pp. 8-13</p>

<p>student will be able to: 5.S.4.2.1 Explain the rock cycle and identify the three classifications of rocks. (609.02.a)</p>	<p>Rocks and Minerals Activity 2, 9-10, pp. 21-28, 69-84 Reader, p. 13</p>
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Standard 5: Personal and Social Perspectives; Technology

Students use the scientific method to identify environmental issues.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.5.1.1 Identify issues for environmental studies. (611.01.a)</p> <p>Goal 5.2: Understand the Relationship between Science and Technology</p> <p>Objective(s): By the end of Grade 5, the student will be able to:</p> <p>5.S.5.2.1 Describe how science and technology are part of a student's life. (610.01.a)</p> <p>5.S.5.2.2 List examples of science and technology. (610.01.b)</p> <p>Goal 5.3: Understand the Importance of Natural Resources and the Need</p>	<p>Pollution Activity 1-12, pp. 13-88 Reader, pp. 2-11</p> <p>Erosion Activity 6, pp. 51-57 Reader, pp. 14-15</p> <p>Oceans Activity 11, Science Challenge, p. 134</p> <p>Electromagnetism Activity 2, Science, Technology, and Society, p. 23 Activity 6, Science, Technology, and Society, p. 48 Reader, pp. 9-13, 15</p> <p>Simple Machines Reader, pp. 10, 15</p> <p>Color and Light Activity 4, Science, Technology, and Society, p. 43</p> <p>Flight and Rocketry Reader, pp. 4-13</p> <p>Electromagnetism Activity 2, Science, Technology, and Society, p. 23 Activity 6, Science, Technology, and Society, p. 48 Reader, pp. 9-13, 15</p> <p>Simple Machines Reader, pp. 10, 15</p> <p>Color and Light Activity 4, Science, Technology, and Society, p. 43</p> <p>Flight and Rocketry Reader, pp. 4-13</p>

to Manage and Conserve Them

Objective(s): By the end of Grade 5, the student will be able to:

- 5.S.5.3.1 Identify the differences between renewable and nonrenewable resources.
(611.03.a)

Pollution
Reader, p. 5

IDAHO SCIENCE CONTENT STANDARDS GRADE 6

Students are expected to know content and apply skills from previous grades.

Standard 1: Nature of Science

Students gather evidence to differentiate between predictions, observations, and inferences.
Students read, give, and execute technical instructions.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.1.1.1 Analyze different systems. (618.01.a)</p>	<p>You and Your Body Activity 2, 4, 6, pp. 19-25, 33-39, 49-55</p> <p>Flight and Rocketry Activity 8, 12, pp. 81-89, 121-130</p> <p>Electromagnetism Activity 6-9, pp. 43-68</p> <p>Simple Machines Activity 7-8, pp. 57-69</p> <p>Earth, Moon and Sun Activity 5, 9-12, pp. 45-51, 81-119</p> <p>Newton's Toy Box Activity 7-10, pp. 49-72</p>
<p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanation</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.1.2.1 Explain how observations and data are used as evidence on which to base scientific explanations and predictions. (618.02.a)</p>	<p>Erosion Activity 6-8, pp. 51-73</p> <p>Pollution Activity 8-10, pp. 59-76</p> <p>You and Your Body Activity 3, 5, pp. 27-31, 41-48</p> <p>Color and Light Activity 2-7, pp. 19-67</p> <p>Matter and Change Activity 11-13, pp. 93-109</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p>
<p>6.S.1.2.2 Use observations to make inferences. (618.02.b)</p>	<p>Pollution Activity 4-8, pp. 31-51</p> <p>Oceans Activity 4, 11, pp. 43-54, 125-134</p> <p>Flight and Rocketry Activity 8-9, pp. 81-97</p> <p>Rocks and Minerals Activity 10, pp. 77-84</p> <p>Matter and Change Activity 1-3, pp. 13-35</p> <p>Earth Processes Activity 3-5, pp. 29-54</p>

<p>6.S.1.2.3 Use models to explain or demonstrate a concept. (618.02.c)</p> <p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.1.3.1 Analyze changes that occur in and among systems. (618.03.b)</p> <p>6.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units with an emphasis on the metric system. (618.03.c)</p> <p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>No objectives at this grade level.</p> <p>Goal 1.5: Understand Concepts of Form and Function</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.1.5.1 Analyze how the shape or form of an object or system is frequently related to its use</p>	<p>Erosion Activity 10-12, pp. 83-104</p> <p>You and Your Body Activity 2, 4, 6, pp. 19-25, 33-39, 49-54</p> <p>Oceans Activity 6-10, pp. 65-124</p> <p>Electromagnetism Activity 7, 9, pp. 49-56, 63-68</p> <p>Earth Processes Activity 5-9, pp. 47-87</p> <p>Earth, Moon and Sun Activity 3-5, 9-12, pp. 29-51, 81-119</p> <p>You and Your Body Activity 5, pp. 41-48</p> <p>Erosion Activity 10-12, pp. 83-104</p> <p>Oceans Activity 5, 9, pp. 55-63, 99-111</p> <p>Flight and Rocketry Activity 8-9, pp. 81-97</p> <p>Simple Machines Activity 7-8, pp. 57-69</p> <p>Earth Processes Activity 5-6, pp. 47-62</p> <p>Matter and Change Activity 2-3, pp. 21-35</p> <p>Simple Machines Activity 1-6, pp. 13-45</p> <p>You and Your Body Activity 5, pp. 41-48</p> <p>Weather Instruments Activity 3, pp. 25-32</p> <p>Matter and Change Activity 1-2, pp. 13-27</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Oceans Activity 10-11, pp. 113-134</p> <p>You and Your Body</p>
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<p>and/or function. (618.05.a)</p>	<p>Activity 1-2, 8, pp. 13-25, 61-66 Simple Machines Activity 7-11, pp. 57-89 Flight and Rocketry Activity 2, 4-7, pp. 23-32, 45-80 Newton's Toy Box Activity 4, 10, pp. 33-38, 67-72 Astronomy Activity 9</p>
<p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p>	
<p>Objective(s): By the end of Grade 6, the student will be able to:</p>	<p>These objectives are addressed in all grade 6 DSM grade 6 modules. See for example:</p>
<p>6.S.1.6.1 Write and analyze questions that can be answered by conducting scientific experiments. (619.02.a)</p>	<p>Color and Light Activity 2-3, pp. 19-35 Electromagnetism Activity 6, pp. 43-48 Pollution Activity 10, pp. 71-76 Erosion Activity 5, 7-8, pp. 43-49, 59-73 Matter and Change Activity 11-13, pp. 93-109 Newton's Toy Box Activity 7-9, pp. 49-65</p>
<p>6.S.1.6.2 Conduct scientific investigations using a control and variables. Repeat same experiment using alternate variables. (619.02.b)</p>	<p>You and Your Body Activity 5, pp. 41-48 Pollution Activity 10, pp. 71-76 Erosion Activity 3, 8, pp. 29-35, 67-73 Electromagnetism Activity 6, pp. 43-48 Matter and Change Activity 12, pp. 99-104 Newton's Toy Box Activity 8, pp. 55-59</p>
<p>6.S.1.6.3 Select and use appropriate tools and techniques to gather and display data. (619.02.c)</p>	<p>Simple Machines Activity 2-4, pp. 19-37 Weather Forecasting Activity 3, pp. 25-32 Rocks and Minerals Activity 4-6, pp. 35-54 Flight and Rocketry Activity 8, p. 81-89 Matter and Change Activity 11-13, pp. 93-109 Newton's Toy Box Activity 7-9, pp. 49-65</p>
<p>6.S.1.6.4 Use evidence to analyze data in order to develop descriptions, explanations,</p>	<p>Color and Light Activity 2-6, pp. 19-59 Electromagnetism</p>

<p>predictions, and models. (619.2.d)</p> <p>6.S.1.6.5 Test a hypothesis based on observations. (619.02.e)</p> <p>6.S.1.6.6 Communicate scientific procedures and explanations. (619.02.g)</p> <p>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</p> <p>No objectives at this grade level.</p> <p>Goal 1.8: Understand Technical Communication</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.1.8.1 Read, give, and execute technical instructions. (628.01a)</p>	<p>Activity 6, pp. 43-48 Pollution Activity 10, pp. 71-76 Oceans Activity 2-3, pp. 23-41 Matter and Change Activity 1-3, pp. 13-15 Earth Processes Activity 10, pp. 89-95</p> <p>DSM activities provide the opportunity to address this objective. See for example: You and Your Body Activity 3, 5, pp. 27-31, 41-48 Pollution Activity 10, pp. 71-76 Simple Machines Activity 4, pp. 33-37 Electromagnetism Activity 6, pp. 43-48 Matter and Change Activity 12, pp. 99-104 Newton's Toy Box Activity 8, pp. 55-19</p> <p>You and Your Body Activity 3, 5, pp. 27-31, 41-48 Pollution Activity 10, pp. 71-76 Simple Machines Activity 2-4, pp. 19-37 Electromagnetism Activity 6, pp. 43-48 Newton's Toy Box Activity 7-9, pp. 49-65 Matter and Change Activity 11-13, pp. 93-109</p> <p>Color and Light Activity 6, 11-12, pp. 53-59, 93-109 Rocks and Minerals Activity 7-8, pp. 55-67 Pollution Activity 1, pp. 13-17 Electromagnetism Activity 3-6, pp. 25-48 Newton's Toy Box Activity 9-11, pp. 61-77</p>
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Standard 2: Physical Science

Students compare and contrast elements, compounds and mixtures. Students explore the effects of force and energy on objects.

GOALS/OBJECTIVES	DSM
<p>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.2.1.1 Compare and contrast the differences among elements, compounds and mixtures. (620.01.a)</p> <p>6.S.2.1.2 Define the properties of matter. (620.01.b)</p> <p>6.S.2.1.3 Compare densities of equal volumes of a solid, a liquid, or a gas. (619.01.c)</p> <p>6.S.2.1.4 Describe the effect of temperature on density. (620.01.c)</p> <p>6.S.2.1.5 Explain the nature of physical change and how it relates to physical properties (the distance between molecules as water changes from ice to liquid water, and to water vapor). (620.01.d)</p>	<p>Matter and Change Activity 3-7, pp. 29-68 Reader, pp. 4-8, 14-15</p> <p>Matter and Change Activity 1-3, pp. 13-35 Reader, pp. 13-14</p> <p>Matter and Change Activity 1, pp. 13-19 Reader, pp. 4-8, 14-15</p> <p>Matter and Change Activity 2-3, pp. 21-35 Reader, pp. 11-12, 14-15</p>
<p>Goal 2.2: Understand Concepts of Motion and Forces</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.2.2.1 Describe the effects of different forces (gravity and friction) on the movement, speed, and direction of an object. (620.03.d)</p>	<p>Newton's Toy Box Activity 1-10, pp. 13-72 Reader, pp. 4-13</p>
<p>Goal 2.3: Understand the Total Energy in the Universe is Constant</p> <p>No objectives at this grade level.</p>	
<p>Goal 2.4: Understand the Structure of Atoms</p> <p>No objectives at this grade level.</p>	
<p>Goal 2.5: Understand Chemical Reactions</p>	

No objectives at this grade level.	
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Standard 3: Biology

Students understand the building blocks of organisms.

GOALS/OBJECTIVES	DSM
<p>Goal 3.1: Understand the Theory of Biological Evolution</p> <p>No objectives at this grade level.</p>	
<p>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</p> <p>No objectives at this grade level.</p>	
<p>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.3.3.1 Identify the different structural levels of which an organism is comprised (cells, tissues, organs, organ systems, and organisms). (621.01.a)</p> <p>6.S.3.3.2 Analyze the structural differences between plant and animal cells. (621.01.b)</p> <p>6.S.3.3.3 Describe how traits are passed from parents to offspring. (621.01.c)</p>	<p>Plants in Our World Activity 1-2, 4 DNA-From Genes to Proteins Activity 3-4</p> <p>Plants in Our World Activity 1-2, 4 DNA-From Genes to Proteins Activity 3-4</p> <p>DNA-From Genes to Proteins Activity 3. Science Extension, p. 23</p>

Standard 4: Earth and Space Systems

Students understand and explain the relationship among the systems on Earth, such as solid earth, oceans, atmosphere, and organisms

GOALS/OBJECTIVES	DSM
<p>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.4.1.1 Explain the interactions among the solid earth, oceans, atmosphere, and organisms. (624.01.a)</p>	<p>Erosion Activity 1-12, pp. 13-104 Reader, pp. 2-13 Weather Forecasting Activity 9, 12, pp. 69-74, 87-93 Reader, pp. 8-13 Oceans Activity 5-9, pp. 55-111</p>

<p>6.S.4.1.2 Explain the water cycle and its relationship to weather and climate. (624.01.b)</p> <p>6.S.4.1.3 Identify cumulus, cirrus, and stratus clouds and how they relate to weather changes. (624.01.c)</p> <p>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System</p> <p>No objectives at this grade level.</p>	<p>Reader, pp. 4-6 Earth Processes Activity 3-8, pp. 29-79 Reader, pp. 4-15</p> <p>Oceans Activity 5, pp. 55-63 Weather Forecasting Reader, p. 4</p> <p>Weather Forecasting Activity 10, p. 75-80</p>
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Standard 5: Personal and Social Perspectives; Technology

Students identify issues for environmental studies and understand the difference between renewable and nonrenewable resources.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.5.1.1 Identify issues for environmental studies. (626.01.a)</p> <p>Goal 5.2: Understand the Relationship between Science and Technology</p> <p>Objective(s): By the end of Grade 6, the student will be able to:</p> <p>6.S.5.2.1 Describe how science and technology are part of our society. (625.01.a)</p> <p>6.S.5.2.2 Describe how science and</p>	<p>Pollution Activity 1-12, pp. 13-88 Reader, pp. 2-11</p> <p>Erosion Activity 6, pp. 51-57 Reader, pp. 14-15</p> <p>Electromagnetism Activity 2, Science, Technology, and Society, p. 23 Activity 6, Science, Technology, and Society, p. 48 Activity 8, Science, Technology, and Society, p. 63 Reader, pp. 9-13, 15</p> <p>Simple Machines Reader, pp. 10, 15</p> <p>Color and Light Activity 4, Science, Technology, and Society, p. 43</p> <p>Newton's Toy Box Reader, pp. 16-21</p> <p>Electromagnetism</p>

technology are interrelated.
(625.01.b)

Activity 2, Science, Technology, and Society, p. 23
Activity 6, Science, Technology, and Society, p. 48
Activity 8, Science, Technology, and Society, p. 63
Reader, pp. 9-13, 15
Simple Machines
Reader, pp. 10, 15
Color and Light
Activity 4, Science, Technology, and Society, p. 43
Newton's Toy Box
Reader, pp. 16-21

Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them

Objective(s): By the end of Grade 6, the student will be able to:

- 6.S.5.3.1 Explain the difference between renewable and nonrenewable resources.
(626.03.a)

Pollution
Reader, p. 5

IDAHO SCIENCE CONTENT STANDARDS GRADE 7

Students are expected to know content and apply skills from previous grades.

Standard 1: Nature of Science

Students carry out investigations over time using appropriate tools and equipment. Students make inferences based upon data they collect. Students accurately communicate the results of their investigations and observations. Students support or revise their conclusions by critically analyzing alternate explanations. Students carry out investigations following written lab procedures. Students follow safety protocols in carrying out investigations.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>Objective(s): By the end of Grade 7 the student will be able to:</p> <p>7.S.1.1.1 Define small systems as a part of a whole system. (633.01.a)</p> <p>7.S.1.1.2 Determine how small systems contribute to the function of the whole. (633.01.a)</p> <p>7.S.1.1.3 Identify the different structural levels of an organism (cells, tissues, organs, and organ systems). (633.01.b)</p> <p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanation</p> <p>Objective(s): By the end of Grade 7, the student will be able to:</p> <p>7.S.1.2.1 Describe how observations and data are evidence on which to base scientific explanations and predictions. (633.02.a)</p>	<p>Earth, Moon and Sun Activity 5, 9-11, pp. 45-51, 81-119 Reader, pp. 2-19</p> <p>Earth Processes Activity 12, pp. 105-110</p> <p>Matter and Change Activity 4-5, pp. 37-51 Reader, pp. 2-8</p> <p>Newton's Toy Box Activity 10, pp. 67-72</p> <p>Earth, Moon and Sun Activity 5, 9-11, pp. 45-51, 81-119 Reader, pp. 2-19</p> <p>Earth Processes Activity 12, pp. 105-110</p> <p>Matter and Change Activity 4-5, pp. 37-51 Reader, pp. 2-8</p> <p>Newton's Toy Box Activity 10, pp. 67-72</p> <p>Plants in Our World Activity 1-2, 4</p> <p>DNA-From Genes to Proteins Activity 3-4</p> <p>Newton's Toy Box Activity 7-11, pp. 49-77</p> <p>Matter and Change Activity 11-13, pp. 93-109</p> <p>Earth Processes Activity 3-4, pp. 29-46</p> <p>Earth, Moon and Sun Activity 5, pp. 45-51</p>

<p>7.S.1.2.2 Use observations to make defensible inferences. (633.02.b)</p> <p>7.S.1.2.3 Use models to explain or demonstrate a concept. (633.02.c)</p>	<p>Plants in Our World Activity 3</p> <p>Newton's Toy Box Activity 1-3, pp. 13-31</p> <p>Matter and Change Activity 1-3, pp. 13-35</p> <p>Earth Processes Activity 3-4, pp. 29-46</p> <p>Electrical Connections Activity 1, 5, 7, 9</p> <p>Matter and Change Activity 4-5, 7, pp. 37-51, 63-68</p> <p>Earth, Moon and Sun Activity 4-5, 9-12, pp. 37-51</p> <p>Earth Processes Activity 4-7, pp. 39-69</p> <p>Astronomy Activity 1-6</p>
<p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Grade 7, the student will be able to:</p> <p>7.S.1.3.1 Identify concepts of science that have been stable over time. (633.03.a)</p> <p>7.S.1.3.2 Recognize changes that occur within systems. (633.03.b)</p> <p>7.S.1.3.3 Make metric measurements using appropriate tools. (633.03.c)</p>	<p>Newton's Toy Box Activity 1-3, pp. 13-31 Reader, pp. 10-13</p> <p>Matter and Change Activity 4-5, pp. 37-51 Reader, pp. 2-5</p> <p>Earth Processes Activity 12-14, pp. 105-119</p> <p>Earth, Moon and Sun Activity 8-12, pp. 71-119</p> <p>Newton's Toy Box Activity 9-10, pp. 61-72</p> <p>Matter and Change Activity 2-3, 12-13 pp. 21-35, 99-109</p> <p>Earth Processes Activity 6, 14, pp. 55-62, 121-129</p> <p>Earth, Moon and Sun Activity 9-12, pp. 81-119</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Matter and Change Activity 1-2, pp. 13-27</p> <p>Earth, Moon and Sun Activity 3-4, pp. 29-44</p>
<p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p>	

<p>Reference to objective 7.S.3.2.1</p> <p>Goal 1.5: Understand Concepts of Form and Function</p> <p>No objectives at this grade level.</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Grade 7, the student will be able to:</p> <p>7.S.1.6.1 Identify controls and variables used in scientific investigations. (634.01.b)</p> <p>7.S.1.6.2 Use appropriate tools and techniques to gather and display data. (634.01c)</p> <p>7.S.1.6.3 Evaluate data in order to form conclusions. (634.01.d)</p> <p>7.S.1.6.4 Use evidence and critical thinking to accept or reject a hypothesis. (634.01.e)</p> <p>7.S.1.6.5 Evaluate alternative explanations or predictions. (634.01.f)</p> <p>7.S.1.6.6 Communicate and defend scientific procedures and</p>	<p>These objectives are addressed in all grade 6-8 DSM modules. See for example:</p> <p>Matter and Change Activity 12, pp. 99-104 Newton's Toy Box Activity 8, 11, pp. 55-59, 73-77 Plants in Our World Activity 3</p> <p>Matter and Change Activity 1-3, pp. 13-35 Newton's Toy Box Activity 7-9, pp. 49-65 Plants in Our World Activity 3 Earth Processes Activity 10, pp. 89-95</p> <p>Matter and Change Activity 11-13, pp. 93-109 Newton's Toy Box Activity 7-9, 11, pp. 49-65, 73-77 Plants in Our World Activity 3 Electrical Connections Activity 8-10</p> <p>DSM activities provide the opportunity to address this objective. See for example: Matter and Change Activity 12, pp. 99-104 Newton's Toy Box Activity 8, 11, pp. 55-59, 73-77 Plants in Our World Activity 3 Earth Processes Activity 10, pp. 89-95</p> <p>DSM activities provide the opportunity to address this objective. See for example: Matter and Change Activity 12, pp. 99-104 Newton's Toy Box Activity 3, 10, pp. 25-31, 67-72 Earth Processes Activity 11, 14, pp. 13-21, 121-129</p> <p>Matter and Change Activity 11-13, pp. 93-109 Newton's Toy Box Activity 7-9, 11 pp. 49-65, 73-77</p>
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<p>7.S.3.2.3 Illustrate how atoms and molecules cycle among the living and nonliving components of the biosphere. (638.01.c)</p> <p>7.S.3.2.4 Identify how energy flows through ecosystems in one direction, from photosynthetic organisms to herbivores, carnivore, and decomposers. (638.01.d)</p>	<p>Plants in Our World Activity 9-10</p>
<p>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</p>	
<p>Objective(s): By the end of Grade 7, the student will be able to:</p>	
<p>7.S.3.3.1 Explain the relationships among specialized cells, tissues, organs, organ systems, and organisms. (636.01.a)</p>	<p>Plants in Our World Activity 1-2, 4, 9</p>
<p>7.S.3.3.2 Identify the parts of specialized plant and animal cells. (636.01.b)</p>	<p>Plants in Our World Activity 2, 4, 9</p>
<p>7.S.3.3.3 Identify the functions of cell structures. (636.01.b)</p>	<p>Plants in Our World Activity 1-2 DNA-From Genes to Proteins Activity 3-4</p>
<p>7.S.3.3.4 Describe cell functions that involve chemical reactions. (630.01.c)</p>	<p>Plants in Our World Activity 9-10</p>
<p>7.S.3.3.5 Describe how dominant and recessive traits are inherited. (636.01.e)</p>	<p>DNA –From Genes to Proteins Activity 3, Science Extension, p. 23</p>

Standard 4: Earth and Space Systems

No goals or objectives at this grade level.

Standard 5: Personal and Social Perspectives; Technology

Students understand that science and technology interact and impact both individuals and society.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>No objectives at this grade level.</p> <p>Goal 5.2: Understand the Relationship</p>	

between Science and Technology

Objective(s): By the end of Grade 7, the student will be able to:

7.S.5.2.1 Explain how science and technology are interrelated. (640.01.a)

7.S.5.2.2 Explain how science advances technology. (640.01.b)

Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them

Objective(s): By the end of Grade 7, the student will be able to:

7.S.5.3.1 Identify alternative sources of energy. (641.03.a)

Newton's Toy Box

Activity 2, Science, Technology, and Society, p. 23

Activity 11, Science, Technology and Society, p. 77

Reader, pp. 16-21

Matter and Change

Activity 6, Science, Technology and Society, p. 61

Newton's Toy Box

Activity 2, Science, Technology, and Society, p. 23

Activity 11, Science, Technology and Society, p. 77

Reader, pp. 16-21

Matter and Change

Activity 6, Science, Technology and Society, p. 61

IDAHO CONTENT STANDARDS
GRADE 8-9
PHYSICAL SCIENCE

Students are expected to know content and apply skills from previous grades.

Standard 1: Nature of Science

Students exercise the basic tenets of scientific investigation, make accurate observations, exercise critical thinking skills, apply proper scientific instruments of investigation and measurement tools, and communicate results in problem solving. Students evaluate the validity of information by utilizing the tools of scientific thinking and investigation. Students summarize their findings by creating lab reports using technical writing including graphs, charts, and diagrams to communicate the results of investigations.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>Objective(s): By the end of Physical Science, the student will be able to:</p> <p style="padding-left: 40px;">8-9.PS.1.1.1 Explain the scientific meaning of system, order, and organization. (648.01a)</p> <p style="padding-left: 40px;">8-9.PS.1.1.2 Apply the concepts of order and organization to a given system. (648.01a)</p>	<p>Earth, Moon and Sun Activity 9-12, pp. 81-119</p> <p>Earth Processes Activity 12-14, pp. 105-119</p> <p>Matter and Change Activity 4-5, 7, pp. 37-51, 63-68</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Earth, Moon and Sun Activity 9-12, pp. 81-119</p> <p>Earth Processes Activity 12-14, pp. 105-119</p> <p>Matter and Change Activity 4-5, 7, pp. 37-51, 63-68</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p>
<p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanation</p> <p>Objective(s): By the end of Physical Science, the student will be able to:</p> <p style="padding-left: 40px;">8-9.PS.1.2.1 Use observations and data as evidence on which to base scientific explanations. (648.02a)</p> <p style="padding-left: 40px;">8-9.PS.1.2.2 Develop models to explain concepts or systems. (648.02b)</p>	<p>Earth, Moon and Sun Activity 5, pp. 45-51</p> <p>Earth Processes Activity 3-4, pp. 29-46</p> <p>Matter and Change Activity 11-13, pp. 93-109</p> <p>Newton's Toy Box Activity 7-11, pp. 49-77</p> <p>Plants in Our World Activity 3</p> <p>Earth, Moon and Sun Activity 4-5, 9-12, pp. 44-51, 92-119</p> <p>Matter and Change</p>

<p>8-9.PS.1.2.3 Develop scientific explanations based on knowledge, logic, and analysis. (648.02c)</p> <p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Physical Science, the student will be able to:</p> <p>8-9.PS.1.3.1 Measure changes that can occur in and among systems. (648.03b)</p> <p>8-9.PS.1.3.2 Analyze changes that can occur in and among systems. (648.03b)</p> <p>8-9.PS.1.3.3 Measure and calculate using the metric system. (648.03c)</p> <p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>No objectives in Physical Science.</p> <p>Goal 1.5: Understand Concepts of Form and Function</p> <p>No objectives in Physical Science.</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Physical Science, the student will be able to:</p> <p>8-9.PS.1.6.1 Identify questions and concepts that guide</p>	<p>Activity 4-5, 7, pp. 37-51, 63-68</p> <p>Earth Processes Activity 4-7, pp. 39-69</p> <p>Astronomy Activity 1-6</p> <p>Earth Processes Activity 3-4, pp. 29-46</p> <p>Matter and Change Activity 1-3, pp. 13-35</p> <p>Newton's Toy Box Activity 1-3, pp. 13-31</p> <p>Electrical Connections Activity 1, 5, 7, 9</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Matter and Change Activity 1-3, pp. 13-27</p> <p>Plants in Our World Activity 3</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Matter and Change Activity 1-3, pp. 13-27</p> <p>Plants in Our World Activity 3</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Matter and Change Activity 1-3, pp. 13-27</p> <p>Earth, Moon and Sun Activity 3-4, pp. 29-44</p>
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<p>scientific investigations. (649.01a)</p> <p>8-9.PS.1.6.2 Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. (649.01b)</p> <p>8-9.PS.1.6.3 Use appropriate technology and mathematics to make investigations. (649.01c)</p> <p>8-9.PS.1.6.4 Formulate scientific explanations and models using logic and evidence. (649.01d)</p> <p>8-9.PS.1.6.5 Analyze alternative explanations and models. (649.01e)</p> <p>8-9.PS.1.6.6 Communicate and defend a scientific argument. (649.01f)</p> <p>8-9.PS.1.6.7 Explain the differences among observations, hypotheses, and theories. (649.01g)</p> <p>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</p>	<p>Matter and Change Activity 11-13, pp. 93-109</p> <p>Newton's Toy Box Activity 7-9, 11, pp. 49-65, 73-77</p> <p>Plants in Our World Activity 3</p> <p>Electrical Connections Activity 8-10</p> <p>Matter and Change Activity 12, pp. 99-104</p> <p>Newton's Toy Box Activity 8, 11, pp. 55-59, 73-77</p> <p>Plants in Our World Activity 3</p> <p>Matter and Change Activity 1-2, pp. 13-27</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Plants in Our World Activity 3</p> <p>Matter and Change Activity 11-12, pp. 93-104</p> <p>Newton's Toy Box Activity 8, 11, pp. 55-59, 73-77</p> <p>Plants in Our World Activity 3</p> <p>Electrical Connections Activity 8-10</p> <p>DSM activities provide the opportunity to address this objective. See for example:</p> <p>Matter and Change Activity 12, pp. 99-104</p> <p>Newton's Toy Box Activity 3, 10, pp. 25-31, 67-72</p> <p>Earth Processes Activity 1, 14, pp. 13-21, 121-129</p> <p>Matter and Change Activity 11-13, pp. 93-109</p> <p>Newton's Toy Box Activity 7-9, 11, pp. 49-65, 73-77</p> <p>Plants in Our World Activity 3</p> <p>Electrical Connections Activity 8-10</p> <p>The inquiry nature of DSM activities provides the opportunity to teach this objective.</p>
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<p>No objectives in Physical Science.</p> <p>Goal 1.8: Understand Technical Communication</p> <p>Objective(s): By the end of Physical Science, the student will be able to: 8-9.PS.1.8.1 Analyze technical writing, graphs, charts, and diagrams. (658.02a)</p>	<p>Newton's Toy Box Reader, pp. 3, 5, 12, 17, 19</p> <p>Matter and Change Reader, pp. 2-8, 12, 15, 20</p> <p>Earth Processes Reader, pp. 3-6, 8-10, 18, 22</p> <p>Earth, Moon and Sun Reader, pp. 2-3, 5, 7, 9-12, 19</p>
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Standard 2: Physical Science

Students explain the structure and properties of atoms, including isotopes. Students explain how chemical reactions, while requiring or releasing energy, can neither destroy nor create energy or matter. Students explain the differences between fission and fusion. Students explain the interactions of force and mass in describing motion using Newton's Laws. Students explain how energy can be transformed from one form to another while the total amount of energy remains constant. Students classify energy as potential and/or kinetic, and as energy contained in a field.

GOALS/OBJECTIVES	DSM
<p>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</p> <p>No objectives in Physical Science.</p> <p>Goal 2.2: Understand Concepts of Motion and Forces</p> <p>Objective(s): By the end of Physical Science, the student will be able to: 8-9.PS.2.2.1 Explain motion using Newton's Laws of Motion. (650.04b)</p> <p>Goal 2.3: Understand the Total Energy in the Universe is Constant</p> <p>Objective(s): By the end of Physical Science, the student will be able to:</p> <p>8-9.PS.2.3.1 Explain that energy can be transformed but cannot be created nor destroyed. (650.05a)</p> <p>8-9.PS.2.3.2 Classify energy as potential and/or kinetic and as energy contained in a field. (650.05b)</p> <p>Goal 2.4: Understand the Structure of Atoms</p>	<p>Newton's Toy Box Activity 1-13, pp. 13-90 Reader, pp. 10-13</p> <p>Newton's Toy Box Activity 8, 10, pp. 55-59, 67-72 Reader, p. 14</p>

<p>Objective(s): By the end of Physical Science, the student will be able to:</p> <p>8-9.PS.2.4.1 Describe the properties, function, and location of protons, neutrons, and electrons. (650.01a)</p> <p>8-9.PS.2.4.2 Explain the processes of fission and fusion. (650.01b)</p> <p>8-9.PS.2.4.3 Describe the characteristics of isotopes. (650.01c)</p> <p>8-9.PS.2.4.4 State the basic electrical properties of matter. (650.01d)</p> <p>8-9.PS.2.4.5 Describe the relationships between magnetism and electricity.</p>	<p>Matter and Change Activity 4, pp. 37-44 Reader, pp. 2-3</p>
<p>Goal 2.5: Understand Chemical Reactions</p> <p>Objective(s): By the end of Physical Science, the student will be able to:</p> <p>8-9.PS.2.5.1 Explain how chemical reactions may release or consume energy while the quantity of matter remains constant. (650.03a)</p>	<p>Matter and Change Activity 4, pp. 37-44 Reader, pp. 2-3</p> <p>Matter and Change Activity 4, pp. 37-44 Reader, pp. 2-3</p> <p>Matter and Change Reader, pp. 17-18</p>

Standard 3: Biology

No goals or objectives in Physical Science.

Standard 4: Earth and Space Systems

No goals or objectives in Physical Science.

Standard 5: Personal and Social Perspectives; Technology

Students understand that science and technology interact and impact both society and the environment.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>No objectives in Physical Science.</p> <p>Goal 5.2: Understand the Relationship between Science and Technology</p> <p>Objective(s): By the end of Physical Science, the student will be able to:</p> <p>8-9.PS.5.2.1 Explain how science advances technology.</p>	<p>Newton's Toy Box Activity 2, Science, Technology, and Society, p.</p>

<p style="text-align: right;">(655.01a)</p> <p>8-9.PS.5.2.2 Explain how technology advances science. (655.01a)</p> <p>8-9.PS.5.2.3 Explain how science and technology are pursued for different purposes. (656.01b)</p> <p>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them</p> <p>No objectives in Physical Science.</p>	<p>23 Activity 11, Science, Technology and Society, p. 77 Reader, pp. 16-21 Matter and Change Activity 6, Science, Technology and Society, p. 61</p> <p>Earth, Moon and Sun Activity 13, Science, Technology and Society, p. 129 Reader, p. 14 Earth Processes Activity 9, Science, Technology, and Society, p. 87 Reader, pp. 9, 21</p> <p>DSM modules provide the opportunity to address this objective. See above examples.</p>
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IDAHO CONTENT STANDARDS

GRADE 8-9

EARTH SCIENCE

Students are expected to know content and apply skills from previous grades.

Standard 1: Nature of Science

Students exercise the basic tenets of scientific investigation, make accurate observations, exercise critical thinking skills, apply proper scientific instruments of investigation and measurement tools, and communicate results in problem solving. Students evaluate the validity of information by utilizing the tools of scientific thinking and investigation. Students summarize their findings by creating lab reports using technical writing including graphs, charts, and diagrams to communicate the results of investigations.

GOALS/OBJECTIVES	DSM
<p>Goal 1.1: Understand Systems, Order, and Organization</p> <p>Objective(s): By the end of Earth Science, the student will be able to:</p> <p>8-9.ES.1.1.1 Explain the scientific meaning of system, order, and organization. (648.01a)</p> <p>8-9.ES.1.1.2 Apply the concepts of order and organization to a given system. (648.01a)</p>	<p>Earth, Moon and Sun Activity 9-12, pp. 81-119</p> <p>Earth Processes Activity 12-14, pp. 105-119</p> <p>Matter and Change Activity 4-5, 7, pp. 37-51, 63-68</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65</p> <p>Earth, Moon and Sun Activity 9-12, pp. 81-119</p> <p>Earth Processes Activity 12-14, pp. 105-119</p> <p>Matter and Change Activity 4-5, 7, pp. 37-51, 63-68</p> <p>Newton's Toy Box</p>
<p>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanation</p> <p>Objective(s): By the end of Earth Science, the student will be able to:</p> <p>8-9.ES.1.2.1 Use observations and data as evidence on which to base scientific explanations. (648.02a)</p> <p>8-9.ES.1.2.2 Develop models to explain concepts or systems. (648.02b)</p>	<p>Earth, Moon and Sun Activity 5, pp. 45-51</p> <p>Earth Processes Activity 3-4, pp. 29-46</p> <p>Matter and Change Activity 11-13, pp. 93-109</p> <p>Newton's Toy Box Activity 7-11, pp. 49-77</p> <p>Plants in Our World Activity 3</p> <p>Earth, Moon and Sun Activity 4-5, 9-12, pp. 44-51, 92-119</p> <p>Matter and Change Activity 4-5, 7, pp. 37-51, 63-68</p> <p>Earth Processes Activity 4-7, pp. 39-69</p>

<p>8-9.ES.1.2.3 Develop scientific explanations based on knowledge, logic, and analysis. (648.02c)</p> <p>Goal 1.3: Understand Constancy, Change, and Measurement</p> <p>Objective(s): By the end of Earth Science, the student will be able to:</p> <p>8-9.ES.1.3.1 Measure changes that can occur in and among systems. (648.03b)</p> <p>8-9.ES.1.3.2 Analyze changes that can occur in and among systems. (648.03b)</p> <p>8-9.ES.1.3.3 Measure and calculate using the metric system. (648.03c)</p> <p>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</p> <p>No objectives in Earth Science.</p> <p>Goal 1.5: Understand Concepts of Form and Function</p> <p>No objectives in Earth Science.</p> <p>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</p> <p>Objective(s): By the end of Earth Science, the student will:</p> <p>8-9.ES.1.6.1 Identify questions and concepts that guide scientific investigations. (649.01a)</p>	<p>Astronomy Activity 1-6</p> <p>Earth Processes Activity 3-4, pp. 29-46 Matter and Change Activity 1-3, pp. 13-35 Newton's Toy Box Activity 1-3, pp. 13-31 Electrical Connections Activity 1, 5, 7, 9</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65 Matter and Change Activity 1-3, pp. 13-27 Plants in Our World Activity 3</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65 Matter and Change Activity 1-3, pp. 13-27 Plants in Our World Activity 3</p> <p>Newton's Toy Box Activity 7-9, pp. 49-65 Matter and Change Activity 1-3, pp. 13-27 Earth, Moon and Sun Activity 3-4, pp. 29-44</p> <p>Matter and Change Activity 11-13, pp. 93-109 Newton's Toy Box Activity 7-9, 11, pp. 49-65, 73-77</p>
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<p>8-9.ES.1.6.2 Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. (649.01b)</p> <p>8-9.ES.1.6.3 Use appropriate technology and mathematics to make investigations. (649.01c)</p> <p>8-9.ES.1.6.4 Formulate scientific explanations and models using logic and evidence. (649.01d)</p> <p>8-9.ES.1.6.5 Analyze alternative explanations and models. (649.01e)</p> <p>8-9.ES.1.6.6 Communicate and defend a scientific argument. (649.01f)</p> <p>8-9.ES.1.6.7 Explain the differences among observations, hypotheses, and theories. (649.01g)</p> <p>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</p> <p>No objectives in Earth Science.</p> <p>Goal 1.8: Understand Technical</p>	<p>Plants in Our World Activity 3 Electrical Connections Activity 8-10</p> <p>Matter and Change Activity 12, pp. 99-104 Newton's Toy Box Activity 8, 11, pp. 55-59, 73-77 Plants in Our World Activity 3</p> <p>Matter and Change Activity 1-2, pp. 13-27 Newton's Toy Box Activity 7-9, pp. 49-65 Plants in Our World Activity 3</p> <p>Matter and Change Activity 11-12, pp. 93-104 Newton's Toy Box Activity 8, 11, pp. 55-59, 73-77 Plants in Our World Activity 3 Electrical Connections Activity 8-10</p> <p>DSM activities provide the opportunity to address this objective. See for example: Matter and Change Activity 12, pp. 99-104 Newton's Toy Box Activity 3, 10, pp. 25-31, 67-72 Earth Processes Activity 1, 14, pp. 13-21, 121-129</p> <p>Matter and Change Activity 11-13, pp. 93-109 Newton's Toy Box Activity 7-9, 11, pp. 49-65, 73-77 Plants in Our World Activity 3 Electrical Connections Activity 8-10</p> <p>The inquiry nature of DSM activities provides the opportunity to teach this objective.</p>
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Communication	
<p>Objective(s): By the end of Earth Science, the student will be able to:</p> <p>8-9.ES.1.8.1 Analyze technical writing, graphs, charts, and diagrams. (658.02a)</p>	<p>Newton's Toy Box Reader, pp. 3, 5, 12, 17, 19</p> <p>Matter and Change Reader, pp. 2-8, 12, 15, 20</p> <p>Earth Processes Reader, pp. 3-6, 8-10, 18, 22</p> <p>Earth, Moon and Sun Reader, pp. 2-3, 5, 7, 9-12, 19</p>

Standard 2: Physical Science

No goals or objectives in Earth Science.

Standard 3: Biology

No goals or objectives in Earth Science.

Standard 4: Earth and Space Systems

Students describe the current theory explaining the formation of the solar system. Students explain earth processes, events (erosion, uplifting, earthquakes, volcanic eruptions, etc.), and geological time. Students explain Earth's heat sources.

GOALS/OBJECTIVES	DSM
<p>Standard 4: Earth and Space Systems</p> <p>Students describe the current theory explaining the formation of the solar system. Students explain earth processes, events (erosion, uplifting, earthquakes, volcanic eruptions, etc.), and geological time. Students explain Earth's heat sources.</p> <p>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</p> <p>Objective(s): By the end of Earth Science, the student will be able to:</p> <p>8-9.ES.4.1.1 Explain the current scientific theory that suggests that the solar system formed from a nebular cloud of dust and gas. (654.01a)</p> <p>8-9.ES.4.1.2 Identify methods used to estimate geologic time. (654.01b)</p> <p>8-9.ES.4.1.3 Show how interactions among the solid earth, oceans, atmosphere, and organisms have changed the earth system over time. (654.01c)</p>	<p>Earth Processes Reader, p. 22</p> <p>Earth Processes Activity 3-8, 10-14, pp. 29-79, 89-129 Reader, pp. 4-14</p>

<p>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System</p> <p>Objective(s): By the end of Earth Science, the student will be able to:</p> <p>8-9.ES.4.2.1 Explain the internal and external energy sources of the earth (654.02a)</p>	<p>Earth Processes Activity 5, 12, pp. 47-54, 105-110 Reader, pp. 2, 6</p> <p>Earth, Moon and Sun Activity 1, pp. 13-19 Reader, pp. 6-7</p> <p>Astronomy Activity 5</p>
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Standard 5: Personal and Social Perspectives; Technology

Students understand that science and technology interact and impact both society and the environment. Students describe issues such as water and air quality, hazardous waste, renewable and nonrenewable resources.

GOALS/OBJECTIVES	DSM
<p>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</p> <p>Objective(s): By the end of Earth Science, the student will be able to:</p> <p>8-9.ES.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, and depletion of natural resources. (656.01a)</p>	<p>Earth Processes Reader, p. 23</p> <p>Plants in Our World Activity 11, Science, Technology, and Society</p>
<p>Goal 5.2: Understand the Relationship between Science and Technology</p> <p>Objective(s): By the end of Earth Science, the student will be able to:</p> <p>8-9.ES.5.2.1 Explain how science advances technology. (655.01a)</p>	<p>Newton's Toy Box Activity 2, Science, Technology, and Society, p. 23 Activity 11, Science, Technology and Society, p. 77 Reader, pp. 16-21</p> <p>Matter and Change Activity 6, Science, Technology and Society, p. 61</p>
<p>8-9.ES.5.2.2 Explain how technology advances science. (655.01a)</p> <p>8-9.ES.5.2.3 Explain how science and</p>	<p>Earth, Moon and Sun Activity 13, Science, Technology and Society, p. 129 Reader, p. 14</p> <p>Earth Processes Activity 9, Science, Technology, and Society, p. 87 Reader, pp. 9, 21</p> <p>DSM modules provide the opportunity to</p>

technology are pursued
for different purposes.
(655.01b)

**Goal 5.3: Understand the Importance of
Natural Resources and the Need
to Manage and Conserve Them**

**Objective(s): By the end of Earth Science,
the student will be able to:**

8-9.ES.5.3.1 Describe the difference
between renewable and
nonrenewable resources. (656.03a)

address this objective. See above examples.