

**Inquiry Investigations™**  
**Earth's Resources MODULE - 1287232**  
**Grades: 6-9**

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**Colorado K-12 Academic Standards**  
**Science**  
**Grade 6**

STANDARD	CO.1. Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.
STRAND/BENCHMARK	<p>1.1. Ask questions and state hypotheses that lead to different types of scientific investigations (for example: experimentation, collecting specimens, constructing models, researching scientific literature)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> </ul>

		<ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.2.	<p>Use appropriate tools, technologies and metric measurements to gather and organize data and report results</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>

STRAND/BENCHMARK	1.3.	<p>Interpret and evaluate data in order to formulate logical conclusions</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.4.	<p>Demonstrate that scientific ideas are used to explain previous observations and to predict future events (for example: plate tectonics and future earthquake activity)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> </ul>
STRAND/BENCHMARK	1.6.	<p>Communicate results of their investigations in appropriate ways (for</p>

		<p>example: written reports, graphic displays, oral presentations</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STANDARD	CO.2.	Physical Science: Students know and understand common properties, forms, and changes in matter and energy. (Focus: Physics and Chemistry)
STRAND/BENCHMARK	2.6.	<p>When two or more elements are combined a compound is formed which is made up of molecules</p> <ul style="list-style-type: none"> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STANDARD	CO.3.	Life Science: Students know and understand the characteristics and structure of living things, the processes of life, and how living things

		interact with each other and their environment. (Focus: Biology--Anatomy, Physiology, Botany, Zoology, Ecology)
STRAND/BENCHMARK	3.12.	<p>Changes or constancy in groups of organisms over geologic time can be revealed through evidence</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STANDARD	CO.4.	Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: Geology, Meteorology, Astronomy, Oceanography)
STRAND/BENCHMARK	4.1.	<p>Inter-relationships exist between minerals, rocks, and soils</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	4.3.	<p>Natural processes shape the Earth's surface (for example: landslides, weathering, erosion, mountain building, volcanic activity)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> </ul>

		<ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	4.4.	<p>Major geological events such as earthquakes, volcanic eruptions, and mountain building are associated with plate boundaries and attributed to plate motions</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	4.5.	<p>Fossils are formed and used as evidence to indicate that life has changed through time</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STRAND/BENCHMARK	4.6.	<p>Successive layers of sedimentary rock and the fossils contained within them can be used to confirm age, geologic time, history, and changing life forms of the Earth; this evidence is affected by the folding, breaking and uplifting of layers</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STRAND/BENCHMARK	4.16.	<p>Technology is needed to explore space (for example: telescopes, spectroscopes, spacecraft, life support systems)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> </ul>
STANDARD	CO.5.	Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.
STRAND/BENCHMARK	5.2.	<p>Scientific knowledge changes as new knowledge is acquired and previous ideas are modified (for example: through space exploration)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	5.4.	Models can be used to predict change (for example: computer

		<p>simulation, video sequence, stream table)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> </ul>
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**Colorado K-12 Academic Standards**  
**Science**  
**Grade 7**

STANDARD	CO. 1.	Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.
STRAND/BENCHMARK	1.1.	<p>Ask questions and state hypotheses that lead to different types of scientific investigations (for example: experimentation, collecting specimens, constructing models, researching scientific literature)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame</li> </ul>

		<p>Test to Identify Unknown Mineral Samples</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.2.	<p>Use appropriate tools, technologies and metric measurements to gather and organize data and report results</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> </ul>

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STRAND/BENCHMARK	1.3.	<p>Interpret and evaluate data in order to formulate logical conclusions</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>

STRAND/BENCHMARK	1.4.	<p>Demonstrate that scientific ideas are used to explain previous observations and to predict future events (for example: plate tectonics and future earthquake activity)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> </ul>
STRAND/BENCHMARK	1.6.	<p>Communicate results of their investigations in appropriate ways (for example: written reports, graphic displays, oral presentations)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STANDARD	CO.2.	Physical Science: Students know and understand common properties, forms, and changes in matter and energy. (Focus:

Physics and Chemistry)		
STRAND/BENCHMARK	2.6.	<p>When two or more elements are combined a compound is formed which is made up of molecules</p> <ul style="list-style-type: none"> <li>Virtual Laboratory: Mineral Identification</li> </ul>
STANDARD	CO.3.	Life Science: Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (Focus: Biology--Anatomy, Physiology, Botany, Zoology, Ecology)
STRAND/BENCHMARK	3.12.	<p>Changes or constancy in groups of organisms over geologic time can be revealed through evidence</p> <ul style="list-style-type: none"> <li>Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STANDARD	CO.4.	Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: Geology, Meteorology, Astronomy, Oceanography)
STRAND/BENCHMARK	4.1.	<p>Inter-relationships exist between minerals, rocks, and soils</p> <ul style="list-style-type: none"> <li>Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> <li>Virtual Laboratory: Mineral Identification</li> </ul>

STRAND/BENCHMARK	4.3.	<p>Natural processes shape the Earth's surface (for example: landslides, weathering, erosion, mountain building, volcanic activity)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	4.4.	<p>Major geological events such as earthquakes, volcanic eruptions, and mountain building are associated with plate boundaries and attributed to plate motions</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	4.5.	<p>Fossils are formed and used as evidence to indicate that life has changed through time</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STRAND/BENCHMARK	4.6.	<p>Successive layers of sedimentary rock and the fossils contained within them can be used to confirm age, geologic time, history, and changing life forms of the Earth; this evidence is affected by the folding, breaking and uplifting of layers</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STRAND/BENCHMARK	4.16.	<p>Technology is needed to explore space (for example: telescopes, spectrosopes, spacecraft, life support systems)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> </ul>
STANDARD	CO.5.	Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.
STRAND/BENCHMARK	5.2.	Scientific knowledge changes as new knowledge is acquired and

		<p>previous ideas are modified (for example: through space exploration)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	5.4.	<p>Models can be used to predict change (for example: computer simulation, video sequence, stream table)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> </ul>

**Colorado K-12 Academic Standards**  
**Science**  
**Grade 8**

STANDARD	CO.1.	Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.
STRAND/BENCHMARK	1.1.	<p>Ask questions and state hypotheses that lead to different types of scientific investigations (for example: experimentation, collecting specimens, constructing models, researching scientific literature)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the</li> </ul>

		<p>Hardness of a Mineral</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.2.	<p>Use appropriate tools, technologies and metric measurements to gather and organize data and report results</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame</li> </ul>

		<p>Test to Identify Unknown Mineral Samples</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.3.	<p>Interpret and evaluate data in order to formulate logical conclusions</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical</li> </ul>

		<p>Weathering</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.4.	<p>Demonstrate that scientific ideas are used to explain previous observations and to predict future events (for example: plate tectonics and future earthquake activity)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> </ul>
STRAND/BENCHMARK	1.6.	<p>Communicate results of their investigations in appropriate ways (for example: written reports, graphic displays, oral presentations)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> </ul>

		<ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STANDARD	CO.2.	Physical Science: Students know and understand common properties, forms, and changes in matter and energy. (Focus: Physics and Chemistry)
STRAND/BENCHMARK	2.6.	<p>When two or more elements are combined a compound is formed which is made up of molecules</p> <ul style="list-style-type: none"> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STANDARD	CO.3.	Life Science: Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (Focus: Biology--Anatomy, Physiology, Botany, Zoology, Ecology)
STRAND/BENCHMARK	3.12.	<p>Changes or constancy in groups of organisms over geologic time can be revealed through evidence</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STANDARD	CO.4.	Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: Geology, Meteorology, Astronomy, Oceanography)
STRAND/BENCHMARK	4.1.	<p>Inter-relationships exist between minerals, rocks, and soils</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> </ul>

		<ul style="list-style-type: none"> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	4.3.	<p>Natural processes shape the Earth's surface (for example: landslides, weathering, erosion, mountain building, volcanic activity)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	4.4.	<p>Major geological events such as earthquakes, volcanic eruptions, and mountain building are associated with plate boundaries and attributed to plate motions</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	4.5.	<p>Fossils are formed and used as evidence to indicate that life has changed through time</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STRAND/BENCHMARK	4.6.	<p>Successive layers of sedimentary rock and the fossils contained within them can be used to confirm age, geologic time, history, and changing life forms of the Earth; this evidence is affected by the folding, breaking and uplifting of layers</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
STRAND/BENCHMARK	4.16.	<p>Technology is needed to explore space (for example: telescopes, spectrosopes, spacecraft, life support systems)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical</li> </ul>

		<p>Analysis of Minerals</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> </ul>
<b>STANDARD</b>	<b>CO.5.</b>	<b>Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.</b>
<b>STRAND/BENCHMARK</b>	<b>5.2.</b>	<p>Scientific knowledge changes as new knowledge is acquired and previous ideas are modified (for example: through space exploration)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
<b>STRAND/BENCHMARK</b>	<b>5.4.</b>	<p>Models can be used to predict change (for example: computer simulation, video sequence, stream table)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> </ul>

Colorado K-12 Academic Standards  
Science  
Grade 9

<b>STANDARD</b>	<b>CO.1.</b>	<b>Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.</b>
<b>STRAND/BENCHMARK</b>	<b>1.1.</b>	<p>Ask questions and state hypotheses using prior scientific knowledge to help design and guide development and implementation of a scientific investigation</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary</li> </ul>

		<p>Rocks</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.2.	<p>Select and use appropriate technologies to gather, process, and analyze data and to report information related to an investigation</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the</li> </ul>

		<p>Hardness of a Mineral</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.5.	<p>Construct and revise scientific explanations and models, using evidence, logic, and experiments that include identifying and controlling variables</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> </ul>

		<ul style="list-style-type: none"> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
STRAND/BENCHMARK	1.6.	<p>Communicate and evaluate scientific thinking that leads to particular conclusions</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical</li> </ul>

		<p>Weathering</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
<b>STANDARD</b>	<b>CO.2.</b>	<b>Physical Science: Students know and understand common properties, forms, and changes in matter and energy. (Focus: Physics and Chemistry)</b>
<b>STRAND/BENCHMARK</b>	<b>2.2.</b>	<p>The spatial configuration of atoms and the structure of the atoms in a molecule determine the chemical properties of the substance</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> </ul>
<b>STRAND/BENCHMARK</b>	<b>2.3.</b>	<p>There are observable and measurable physical and chemical properties that allow one to compare, contrast, and separate substances (for example: pH, melting point, conductivity, magnetic attraction)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> </ul>

		<ul style="list-style-type: none"> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
<b>STANDARD</b>	<b>CO.4.</b>	<b>Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: Geology, Meteorology, Astronomy, Oceanography)</b>
<b>STRAND/BENCHMARK</b>	<b>4.1.</b>	<p>The Earth's interior has a composition and structure</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
<b>STRAND/BENCHMARK</b>	<b>4.2.</b>	<p>The theory of plate tectonics helps to explain relationships among earthquakes, volcanoes, mid-ocean ridges, and deep-sea trenches</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
<b>STRAND/BENCHMARK</b>	<b>4.6.</b>	<p>Evidence is used (for example: fossils, rock layers, ice cores, radiometric dating) to investigate how Earth has changed or remained constant over short and long periods of time (for example: Mount St. Helen's' eruption, Pangaea, and geologic time)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Teacher Resource CD: Fossils and Geologic Time</li> </ul>
<b>STRAND/BENCHMARK</b>	<b>4.12.</b>	<p>Water and other Earth systems interact (for example: the biosphere, lithosphere, and atmosphere)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> </ul>

		<ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>
<b>STANDARD</b>	<b>CO.5.</b>	<b>Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.</b>
<b>STRAND/BENCHMARK</b>	<b>5.2.</b>	<p>The scientific way of knowing uses a critique and consensus process (for example: peer review, openness to criticism, logical arguments, skepticism)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 1: The Rock Cycle</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 1: Idiochromatic and Allochromatic Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 2: Chemical Analysis of Minerals</li> <li>• Earth Resources: Unit 2 Lab 4 Activity 3: Using the Flame Test to Identify Unknown Mineral Samples</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 2: Fossil Sorting and Identification</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 1: Soil Structure</li> <li>• Earth Resources: Unit 4 Lab 7 Activity 2: Soil Horizons</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> <li>• Virtual Laboratory: Mineral Identification</li> </ul>

STRAND/BENCHMARK	5.3.	<p>Graphs, equations or other models are used to analyze systems involving change and constancy (for example: comparing the geologic time scale to shorter time frame, exponential growth, a mathematical expression for gas behavior; constructing a closed ecosystem such as an aquarium)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical Weathering</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> <li>• Earth Resources: Unit 5 Lab 9 Activity 1: Geology Dig</li> </ul>
STRAND/BENCHMARK	5.4.	<p>There are cause-effect relationships within systems (for example: the effect of temperature on gas volume, effect of carbon dioxide level on the greenhouse effect, effects of changing nutrients at the base of a food pyramid)</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 1 Lab 1 Activity 2: Creating a Sedimentary Rock</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 3: Effects of Heat and Pressure on Rock Layers</li> <li>• Earth Resources: Unit 1 Lab 1 Activity 4: Crystallization</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 1: Igneous Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 2: Sedimentary Rocks</li> <li>• Earth Resources: Unit 1 Lab 2 Activity 3: Metamorphic Rocks</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 1: Identifying Mineral Color</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 2: Mineral Luster</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 3: The Streak of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 4: Testing the Hardness of a Mineral</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 5: Cleavage and Fracture</li> <li>• Earth Resources: Unit 2 Lab 3 Activity 6: Specific Gravity</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Earth Resources: Unit 3 Lab 5 Activity 3: Fossil Formation - Preparing Molds and Casts</li> <li>• Earth Resources: Unit 4 Lab 6 Activity 1: Mechanical</li> </ul>

		<p>Weathering</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 6 Activity 2: Chemical Weathering</li> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> </ul>
STRAND/BENCHMARK	5.5.	<p>Scientific knowledge changes and accumulates over time; usually the changes that take place are small modifications of prior knowledge but major shifts in the scientific view of how the world works do occur</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 3 Lab 5 Activity 1: Fossils and Geologic Time</li> <li>• Teacher Resource CD: Rocks, Minerals, and Earth Processes</li> </ul>
STRAND/BENCHMARK	5.7.	<p>There is a difference between a scientific theory and a scientific hypothesis</p> <ul style="list-style-type: none"> <li>• Earth Resources: Unit 4 Lab 8 Activity 1: Recreating Pangaea</li> </ul>

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