

Unit Name: Rocks and Minerals

Enduring Understandings	Standards Addressed	Essential Questions	Anchor Lessons	Optional Lessons
1. A mineral is a naturally occurring solid that is neither a plant nor an animal.	ES1 Describe what a mineral is ES2 Identify the physical properties of a mineral and test for those	How do minerals fit into our natural world? How do the physical properties of a mineral determine its characteristics?	Unit 3 – Collecting and Classifying the Minerals Around Us <ul style="list-style-type: none"> ✓ Teacher Demonstration – Sort It Out ✓ Student Experiment 1 – Hard As Nails & handout “A Scale of Hardness” ✓ Student Experiment 2 – Rock Hounds Everywhere 	Unit 1 – Mineral Formation Unit 2 – Natural Symmetry
2. All rocks are either metamorphic, igneous or sedimentary. Each type of rock is uniquely formed.	ES3 Compare and contrast the formation of the three types of rock (metamorphic, igneous, and sedimentary)	How does the formation of a rock determine its classification?	Unit 4 – Igneous, Sedimentary, and Metamorphic Rocks <ul style="list-style-type: none"> ✓ Student Experiment 1 – Name That Rock 	Teacher Demonstration – Rock Sandwiches and Rock Candy Student Experiment 2 – Graded Bedding
3. Soil is formed by underlying bedrock and organic, decaying matter which supports the growth of plants.	ES4 Understand how soil is formed ES5 Understands the properties of soil and how it supports the growth of plants	How does soil affect plant growth? How does living matter contribute to the formation of soil?	<i>Soil, Sand, Silt and Clay: Carson-Dellosa</i> Handout <ul style="list-style-type: none"> ✓ How Soil Forms ✓ A Look At Soil <i>The Amazing Earth Model Book: “The Story of Soil” – Soil Scroll</i> Lab report	Unit 5 – Remnants of an Ancient World Unit 7 – The Soil Is Full of Rocks
4. The Earth’s surface is shaped by both slow and rapid processes (weathering, erosion, landslides, volcanic eruptions and earthquakes.)	ES12 Understand that slow (erosion and weathering) and rapid (extreme weather) processes shape the earth	What affects the shape of the Earth’s surface?	Unit 6 – Weathering and Wasting Away <ul style="list-style-type: none"> ✓ Teacher Demonstration – Shake, Rattle and Roll ✓ Student Experiment 2– Wearing Away <i>DSM III: “Our Earth” Activity #1</i>	Student Experiment 1 – Frost-Cracking Unit 8 – Still in the Stone Age