



California Education and the Environment Initiative

The EEI Curriculum cohesively integrates science and engineering practices (SEPs), content (disciplinary core ideas/DCIs), and crosscutting concepts (CCs) within its lesson procedures. This preliminary analysis intentionally teases apart the individual SEPs, DCIs, and CCs as a means of correlating the EEI unit with specific performance expectations; however, the EEI lessons weave these components back together to provide three-dimensional learning for students.

Grade 2

2.3.a./2.3.b. – The Earth Rocks

“The Earth Rocks” draws students’ attention to the properties of rocks and minerals, how their properties influence the ways rocks and minerals function in natural and human systems, and how rock types and mineral content may change. Students have the opportunity to identify the different kinds of properties used by scientists to describe and classify rocks and minerals. They examine some of the factors in nature that physically and chemically change rocks, and identify how these changes can influence the ecosystems in which rocks are located. They discover that many of these processes take place over long periods of time by considering how the rock formations seen and described by the pioneers, who crossed the country, are much the same as they were over 150 years ago. Students also have the chance to discover the role of rocks in natural systems, such as filtering of water in springs and providing sites in which salmon can spawn. Finally, they investigate how rocks and minerals are used by humans to manufacture various products.



Next Generation Science Standards* Correlation with the California Education and the Environment Initiative (EEI) Curriculum

The EEI Curriculum is a great choice for transitioning to NGSS and contributes toward achievement of the performance expectations for the disciplinary core ideas reflected in the Summary Chart below: 2-PS1: Matter and its Interactions and 2-ESS1: Earth’s Place in the Universe. Each EEI unit highlights a small number of performance expectations, science and engineering practices, disciplinary core ideas, and crosscutting concepts. Therefore, the EEI units contribute to students’ overall achievement of the performance expectations by the end of a school year, where they will have had multiple opportunities to engage in all appropriate science and engineering practices, disciplinary core ideas, and crosscutting concepts. While EEI was designed to teach the 1998 California science standards to mastery, it reflects the real world interconnections in science and already incorporates many of the paradigm shifts reflected in the NGSS. To learn more about how EEI supports NGSS, visit <http://californiaeei.org/NGSSGuides/>.



Correlation Chart Key

SEP (Science and Engineering Practices)
DCI (Disciplinary Core Ideas)
CC (Crosscutting Concepts)

	Next Generation Science Standards					
	2-PS1			2-ESS1		
California Connection			✓			
Lesson 1 — Read and interpret a story about the role of rocks and minerals in the migration of people to California in the 1850s.			✓		✓	✓
Lesson 2 – Examine ecosystem posters, act out animal behaviors, and complete a chart about the roles of rocks in natural systems.			✓			
Lesson 3 – Participate in hands-on science activities exploring how rocks change.	✓	✓	✓	✓	✓	✓
Lesson 4 – Examine photos, conduct a scavenger hunt, and create charts and graphs about human uses of rocks.		✓	✓			
Lesson 5 – Interpret information on a graphic diagram and match photographs of minerals to their uses.		✓	✓			
Lesson 6 – Investigate the roles of rocks and minerals as ingredients used by humans to manufacture new products.			✓	✓		✓
Traditional Unit Assessment		✓	✓	✓		
Alternative Unit Assessment		✓	✓	✓		
	SEP	DCI	CC	SEP	DCI	CC

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EEI Unit 2.3.a./2.3.b. – The Earth Rocks

Disciplinary Core Ideas Supported by this EEI Unit					
2-PS1: Matter and its Interactions					
2-ESS1: Earth’s Place in the Universe					
Performance Expectations			Suggestions for Using the EEI Unit to Support NGSS		
2-PS1-1: Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.			Use this unit to have students identify the different kinds of properties used to describe and classify rocks and minerals.		
2-ESS1-1: Use information from several sources to provide evidence that Earth events can occur quickly or slowly			Use this unit to have students discover that there are Earth processes that change the properties, size, and shape of rocks and minerals and that these changes can take place over long periods of time. Have them realize that rock formations pioneers saw and described are much the same as they were over 150 years ago.		
Science and Engineering Practices (SEPs)	Suggestions for Using EEI to Support SEPs	Disciplinary Core Ideas (DCIs)	Suggestions for Using EEI to Support DCIs	Crosscutting Concepts (CCs)	Suggestions for Using EEI to Support CCs
Planning and Carrying Out Investigations (2-PS1-1)	Use the unit to have students participate in a hands-on investigation to determine that rocks can change in size, shape, and composition (Lesson 3).	PS1.A: Structure and Properties of Matter: Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. (2-PS1-1)	Use the unit to have students conclude that rocks are an example of matter and can be described by its observable properties (Lessons 3 and 4).	Patterns (2-PS1-1)	Use the unit to have students observe patterns in the natural world (Lessons 2 and 4). Have them observe that humans use rocks to meet their needs and that they choose rocks and minerals based on their predictable properties (Lessons 3 and 6).
	Constructing Explanations and Designing Solutions (2-ESS1-1)		Use the unit to have students recognize that rocks change through naturally occurring processes (Lesson 3). Have them consider the three properties scientists use to help identify and classify rocks and minerals, and how people can change rocks and minerals much faster than usually occurs through normal Earth processes (Lessons 4 and 5).		
		ESS1.C: The History of Planet Earth: Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (2-ESS1-1)		Energy and Matter (Not associated with a specific Performance Expectation identified above)	Use this unit to have students establish that rocks and minerals can be broken down into smaller pieces and can change shapes (Lessons 2, 3 and 5).
				Stability and Change (2-ESS1-1)	Use the unit to have students realize that naturally occurring changes on Earth can happen over long periods of time (Lessons 1 and 3).