

WASHINGTON STATE LASER

Alignment of Washington 6-8
Science Standards by EALR/Domain for

SEPUP

Rocks & Minerals

November 1, 2010

**Alignment of Washington 6-8 Science Standards with
SEPUP Rocks & Minerals
Inquiry ~ INQC**

Content Standard

Collecting, analyzing, and displaying data are essential aspects of all investigations.

- Communicate results using pictures, tables, charts, diagrams, graphic displays, and text that are clear, accurate, and informative.

Performance Expectation

- Recognize and interpret patterns – as well as variations from previously learned or observed patterns – in data, diagrams, symbols, and words.
- Use statistical procedures (e.g., median, mean, or mode) to analyze data and make inferences about relationships.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 12	Aligned as designed	SG p B-5; TG p B-5	
Activity 13	Aligned as designed	TG p B-10; Student Sheet 13.1	The unit/lesson is an integral part of a learning progression, and Student Sheet 13.1 is used in future lessons.
Activity 14	Aligned as designed	TG pp B-16-17; Transparency 14.1; Student Sheet 14.1	Teacher must make use of information found in previous lesson 13.
Activity 16	Aligned as designed	SG p B-23; TG p B-39; Student Sheet 16.1	

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Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 20	Aligned as designed	SG p B-39; TG p B-75; Student Sheet 20.1	

**Alignment of Washington 6-8 Science Standards with
SEPUP Rocks & Minerals
Inquiry ~ INQE**

Content Standard Models are used to represent objects, events, systems, and processes. Models can be used to test hypotheses and better understand phenomena, but they have limitations.

Performance Expectation • Create a model or simulation to represent the behavior of objects, events, systems, or processes. Use the model to explore the relationship between two variables and point out how the model or simulation is similar to or different from the actual phenomenon.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 21	Aligned as designed	SG pp B-42-44; TG pp B-79-83	
Activity 22	Aligned as designed	SG pp B-46-47; TG pp B-87-92; TR 22.1, 22.2; Student Sheet 22.1	

**Alignment of Washington 6-8 Science Standards with
SEPUP Rocks & Minerals
Inquiry ~ INQH**

Content Standard

Science advances through openness to new ideas, honesty, and legitimate skepticism. Asking thoughtful questions, querying other scientists' explanations, and evaluating one's own thinking in response to the ideas of others are abilities of scientific inquiry.

Performance Expectation

- Recognize flaws in scientific claims, such as uncontrolled variables, over generalizations from limited data, and experimenter bias.
- Listen actively and respectfully to research reports by other students. Critique their presentations respectfully, using logical argument and evidence.
- Engage in reflection and self-evaluation.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 23	Aligned as designed	SG pp B-48-53; TG pp B-99-105	

**Alignment of Washington 6-8 Science Standards with
SEPUP Rocks & Minerals
Application ~ APPA**

Content Standard People have always used technology to solve problems. Advances in human civilization are linked to advances in technology.

Performance Expectation • Describe how a technology has changed over time in response to societal challenges.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 23	Aligned with modifications (see comments)	SG pp B-48-53; TG pp B-99-105	Teacher has multiple opportunities to reinforce the concept of how human civilization is impacted by technology.

**Alignment of Washington 6-8 Science Standards with
SEPUP Rocks & Minerals
Physical Science ~ PS2A**

Content Standard Substances have characteristic intrinsic properties such as density, solubility, boiling point, and melting point, all of which are independent of the amount of the sample.

Performance Expectation • Use characteristic intrinsic properties such as density, boiling point, and melting point to identify an unknown substance.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 15	Aligned with modifications (see comments)	SG p B-19; TG p B-31	The unit/lesson intentionally refers to the standard. Teachers need to emphasize the standard to fully meet it with this lesson.
Activity 16	Aligned as designed	SG pp B-21-23; TG pp B-35-40	The teacher needs to be intentional about discussing the standard and the amount of sample.
Activity 17	Aligned as designed	SG p B-28; TG pp B-46-47; Student Sheet 17.1	The teacher needs to be intentional about discussing the standard, with particular attention to the portion regarding sample size.
Activity 23	Aligned with modifications (see comments)	SG pp B-48-53; TG pp B-99-105	The teacher needs to be intentional about discussing the standard when comparing natural versus manufactured diamonds.

**Alignment of Washington 6-8 Science Standards with
SEPUP Rocks & Minerals
Earth Science ~ ES2D**

Content Standard Water is a solvent. As it passes through the water cycle, it dissolves minerals and gases and carries them to the oceans.

Performance Expectation • Distinguish between bodies of saltwater and fresh water and explain how saltwater became salty.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 15	Aligned with modifications (see comments)	SG p B-20; TG p B-30	The unit/lesson intentionally refers to the standard. The teacher needs to be intentional about discussing the standard using Extension 2.

**Alignment of Washington 6-8 Science Standards with
SEPUP Rocks & Minerals
Earth Science ~ ES2H**

Content Standard The rock cycle describes the formation of igneous rock from magma or lava, sedimentary rock from compaction of eroded particles, and metamorphic rock by heating and pressure.

Performance Expectation

- Identify samples of igneous, sedimentary, and metamorphic rock from their properties and describe how their properties provide evidence of how they were formed.
- Explain how one kind of rock could eventually become a different kind of rock.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 19	Aligned as designed	SG pp B-34-37; TG pp B-61-66; Student Sheet 19.1, 19.2	
Activity 20	Aligned as designed	SG pp B-39-41; TG pp B-71-76; Student Sheet 20.1	
Activity 22	Aligned as designed	SG p B-47; TG pp B-87-92; Transparency 22.1, 22.2; Student Sheet 22.1	

**Alignment of Washington 6-8 Science Standards with
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Earth Science ~ ES3B**

Content Standard Thousands of layers of sedimentary rock provide evidence that allows us to determine the age of Earth's changing surface and to estimate the age of fossils found in the rocks.

Performance Expectation • Explain how the age of land forms can be estimated by studying the number and thickness of rock layers, as well as fossils found within rock layers.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 21	Aligned as designed	SG p B-44; TG pp B-82-83	The teacher needs to be intentional about discussing the standard using Analysis question 3.

**Alignment of Washington 6-8 Science Standards with
SEPUP Rocks & Minerals
Earth Science ~ ES3C**

Content Standard

In most locations sedimentary rocks are in horizontal formations with the oldest layers on the bottom. However, in some locations, rock layers are folded, tipped, or even inverted, providing evidence of geologic events in the distant past.

Performance Expectation

- Explain why younger layers of sedimentary rocks are usually on top of older layers, and hypothesize what geologic events could have caused huge blocks of horizontal sedimentary layers to be tipped or older rock layers to be on top of younger rock layers.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 21	Aligned with modifications (see comments)	SG pp B-42-44; TG pp B-81-83; Transparency 21.1	The teacher needs to be intentional about discussing what might have happened to rock layers that are folded, tipped, or inverted.