

# WASHINGTON STATE LASER

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

SEPUP

Evolution

November 1, 2010

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
Inquiry ~ INQA**

**Content Standard** Scientific inquiry involves asking and answering questions and comparing the answer with what scientists already know about the world.

**Performance Expectation** • Generate a question that can be answered through scientific investigation. This may involve refining or refocusing a broad and ill-defined question.

| Lesson Number | Alignment           | Evidence of Alignment                            | AlignmentComments |
|---------------|---------------------|--|-------------------|
| Activity 91   | Aligned as designed | SG pp F-12-15; TG pp F-27-34; Student Sheet 91.1 |                   |

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
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                                 |
|--------------------|----------------------------|---|---|
| <b>Activity 90</b> | <b>Aligned as designed</b> | SG pp F-10-11; TG pp F-13-19; Student Sheet 90.1                    |   |
| <b>Activity 93</b> | <b>Aligned as designed</b> | SG pp F-21-23; TG pp F-51-54; Student Sheet 93.1; Transparency 93.1 | Teachers need to emphasize TG "Follow-Up" p F-54. |

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
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 92   | Aligned as designed | SG pp F-16-20; TG pp F-37-43; Student Sheet 92.1, 92.2 | Teachers need to emphasize background information, p F-39, Transparency 92.1, p F-45, and how student model relates to geologic time scale.             |
| Activity 92   | Aligned as designed | SG-36, Question 3, TG-G-72                             | Question 3 on p SG-36 asks students to explain their reasoning and can demonstrate their level of conceptual understanding of models and this standard. |
| Activity 95   | Aligned as designed | SG pp F-30-32; TG p F-78                               | Teachers need to emphasize Analysis Question #5, SG p F-32.   |
| Activity 96   | Aligned as designed | SG pp F-33-36; TG pp F-85-93; Student Sheet 96.1       | Teachers need to emphasize Analysis Question 3, 5-6, TG p F-92.   |

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
Application ~ APPE**

**Content Standard** Scientists and engineers often work together to generate creative solutions to problems and decide which ones are most promising.

**Performance Expectation** • Collaborate with other students to generate creative solutions to a problem, and apply methods for making tradeoffs to choose the best solution.

| Lesson Number | Alignment           | Evidence of Alignment                               | AlignmentComments                                      |
|---------------|---------------------|---|--|
| Activity 89   | Aligned as designed | SG pp F-4-9; TG pp F-1-8; Student Sheet 89.2        | Teachers need to emphasize Analysis Questions 3 and 4. |
| Activity 101  | Aligned as designed | SG pp F-56-60; TG pp F-165-175; Student Sheet 101.2 | Teachers need to emphasize Analysis Questions 4-5.     |

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
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 93   | Aligned as designed | SG pp F-21-23; TG pp F-51-56; Student Sheet 93.1 |                   |

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
Life Science ~ LS3A**

**Content Standard**

The scientific theory of evolution underlies the study of biology and explains both the diversity of life on Earth and similarities of all organisms at the chemical, cellular, and molecular level. Evolution is supported by multiple forms of scientific evidence.

**Performance Expectation**

- Explain and provide evidence of how biological evolution accounts for the diversity of species on Earth today.

| Lesson Number | Alignment           | Evidence of Alignment                              | AlignmentComments   |
|---------------|---------------------|--|---|
| Activity 94   | Aligned as designed | SG pp F-24-29; TG pp F-63-71; Student Sheet 94.1   | Teachers need to emphasize "Evolution-Related Misconceptions", TG p F-66.     |
| Activity 97   | Aligned as designed | SG pp F-37-42; TG pp F-97-102                      | Teachers need to emphasize "Stopping to Think" segments of reading in SG.     |
| Activity 98   | Aligned as designed | SG pp F-43-47; TG pp F-105-113; Student Guide 98.1 | Teachers need to emphasize Follow-Up, TG p F-109, and Reflection, TG p F-111. |

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
Life Science ~ LS3E**

**Content Standard** Adaptations are physical or behavioral changes that are inherited and enhance the ability of an organism to survive and reproduce in a particular environment.

**Performance Expectation** • Give an example of a plant or animal adaptation that would confer a survival and reproductive advantage during a given environmental change.

| Lesson Number | Alignment           | Evidence of Alignment                            | AlignmentComments  |
|---------------|---------------------|--|--|
| Activity 95   | Aligned as designed | SG pp F-30-32; TG pp F-75-82; Student Sheet 95.1 | Teachers need to emphasize Background Information, TG p F-77.                                  |
| Activity 96   | Aligned as designed | SG pp F-33-36; TG pp F-75-82; Student Sheet 95.1 | Teachers need to emphasize Background Information, TG p F-87 and Analysis Questions #1, 2 & 4. |

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
Life Science ~ LS3F**

**Content Standard** Extinction occurs when the environment changes and the adaptive characteristics of a species, including its behaviors, are insufficient to allow its survival.

**Performance Expectation** • Given an ecosystem, predict which organisms are most likely to disappear from that environment when the environment changes in specific ways.

| Lesson Number | Alignment           | Evidence of Alignment                            | AlignmentComments   |
|---------------|---------------------|--|---|
| Activity 89   | Aligned as designed | SG pp F-4-9; TG pp F-1-8                         | Teachers need to emphasize Analysis Questions 1 and 2.  |
| Activity 95   | Aligned as designed | SG pp F-30-32; TG pp F-75-82; Student Sheet 95.1 | Teachers need to emphasize Analysis Question #4. The Unit/Lesson is an integral part of the learning progression students are asked to demonstrate conceptual understanding of standards in Activities 95-97. |
| Activity 97   | Aligned as designed | SG pp F-37-42; TG pp F-97-102                    | Teachers need to emphasize "Stopping to Think" segments of reading in SG.   |
| Activity 101  | Aligned as designed | SG pp F-56-60; TG pp F-165-175                   | Teachers need to emphasize Analysis Questions 1-3.  |

**Alignment of Washington 6-8 Science Standards with  
SEPUP Evolution  
Life Science ~ LS3G**

**Content Standard** Evidence for evolution includes similarities among anatomical and cell structures, and patterns of development make it possible to infer degree of relatedness among organisms.

**Performance Expectation** Infer the degree of relatedness of two species, given diagrams of anatomical features of the two species (e.g., chicken wing, whale flipper, human hand, bee leg).

| Lesson Number | Alignment           | Evidence of Alignment                            | AlignmentComments                               |
|---------------|---------------------|--|---|
| Activity 90   | Aligned as designed | SG pp F-10-11; TG pp F-13-19; Student Sheet 90.1 | Teachers need to emphasize Analysis Question 1. |
| Activity 99   | Aligned as designed | SG pp F-48-50; TG pp F-121-135                   |   |
| Activity 100  | Aligned as designed | SG pp F-51-55; TG pp F-139-163                   |   |