WASHINGTON STATE LASER

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

SEPUP

Body Works

November 1, 2010

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Systems ~ SYSA

Content Standard Any system may be thought of as containing subsystems and as being a subsystem of a larger system.

Performance Expectation • Given a system, identify subsystems and a larger encompassing system

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 18	**Aligned with modifications (see comments)**	SG pp B-45-49; SG p B-49 Question 3-5; TG pp B-87-96	Teacher must be intentional about use of the terms systems and subsystems.

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Systems ~ SYSC

Content Standard The output of one system can become the input of another system.

Performance Expectation • Give an example of how output of matter or energy from a system can become input for another system

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 18	**Aligned with modifications (see comments)**	SG pp B-45-49; SG p B-49 Question 3-5; TG pp B-87-96	Teacher must be intentional about use of the terms input and output.
Activity 19	**Aligned as designed**	SG pp B-50-53; SG p B-52 Questions 1, 2; TG pp B-103-109	
Activity 24	**Aligned with modifications (see comments)**	SG pp B-70-71; TG pp B-157-162; Student Sheet B-163	Teacher must be intentional about use of the terms input, output and energy of system.

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Inquiry ~ INQC

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

Performance Expectation
• Communicate results using pictures, tables, charts, diagrams, graphic displays, and text that are clear, accurate, and informative.
• 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 19	**Aligned with modifications (see comments)**	SG pp B-50-53; SG p B-53 Question 4; TG pp B-103-109; Student Sheet 19.1	The unit/lesson is an integral part of a learning progression.
Activity 27	**Aligned as designed**	SG pp B-82-84, Question 3; TG pp B-189-192	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Inquiry ~ INQD

Content Standard For an experiment to be valid, all (controlled) variables must be kept the same whenever possible, except for the manipulated (independent) variable being tested and the responding (dependent) variable being measured and recorded. If a variable cannot be controlled, it must be reported and accounted for.

Performance Expectation • Plan and conduct a controlled experiment to test a hypothesis about a relationship between two variables. Determine which variables should be kept the same (controlled), which (independent) variable should be systematically manipulated, and which responding (dependent) variable is to be measured and recorded. Report any variables not controlled and explain how they might affect results.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 14	**Aligned with modifications (see comments)**	SG pp B-19-21 Part B: Designing the Experiment; SG p B-21 Question 1, 4; TG pp B-42-46; TR 200	Teacher must be intentional about use of the terms (vocabulary) manipulated variable and responding variable.

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
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 12	**Aligned as designed**	SG pp B-10-14 (Part C: Modeling The Human Body), Questions 3-4; TG pp B-9-19	
Activity 16	**Aligned as designed**	SG pp B-28-31, Question 1; TG pp B-67-70	
Activity 17	**Aligned with modifications (see comments)**	SG pp B-38-44; TG pp B75-83	The teacher needs to be intentional about discussing the standard.
Activity 18	**Aligned with modifications (see comments)**	SG pp B-45-49; SG p B-49 Question 1; TG pp B-87-96	Teacher must be intentional about sharing "The Model" reading in the box on p B48.

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
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 with modifications (see comments)**	SG pp B-59-61; SG p 61 Questions 1-3; TG pp B-123-128; Student Sheet 20.1	The unit/lesson is strong in creating a model or simulation to represent the behavior of objects, events, systems, or processes. This unit/lesson is a part of a conceptual sequence.
Activity 22	**Aligned as designed**	SG pp B-62-64; SG p B-64 Question 1; TG pp B-133-138	The unit/lesson is strong in creating a model or simulation to represent the behavior of objects, events, systems, or processes. This unit/lesson is a part of a conceptual sequence.
Activity 27	**Aligned as designed**	SG pp B-82-84; SG p B-84 Questions 1-3, TG pp B-189-192	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
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 25	**Aligned as designed**	SG pp B-72-77; SG p B-77 Question 2,4, 5; TG pp B-165-172; Student Sheet 25.1	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
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 20	**Aligned as designed**	SG pp B-54-57; SG p B-57 Questions 1-6; TG pp B-113-119; Student Sheet 20.1	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Application ~ APPF

Content Standard Solutions must be tested to determine whether or not they will solve the problem. Results are used to modify the design, and the best solution must be communicated persuasively.

Performance Expectation
• Test the best solution by building a model or other representation and using it with the intended audience. Redesign as necessary.
• Present the recommended design using models or drawings and an engaging presentation.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 24	**Aligned as designed**	SG pp B-70-71; SG p B-71 Questions 1,3, 4; TG pp B-157-162	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Life Science ~ LS1C

Content Standard	Multicellular organisms have specialized cells that perform different functions. These cells join together to form tissues that give organs their structure and enable the organs to perform specialized functions within organ systems.
Performance Expectation	• Relate the structure of a specialized cell (e.g., nerve and muscle cells) to the function that the cell performs. • Explain the relationship between tissues that make up individual organs and the functions the organ performs (e.g., valves in the heart control blood flow, air sacs in the lungs maximize surface area for transfer of gases). • Describe the components and functions of the digestive, circulatory, and respiratory systems in humans and how these systems interact.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 12	**Aligned with modifications (see comments)**	SG pp B-10-13 (Part B: Classifying the Organs and Part C:Modeling the Human Body); SG p B-14 Questions 5, 6; TG pp B-9-19; Student Sheet 12.1a, 12.1b, 12.4	Teacher has multiple opportunities to reinforce the concept by using the activities found on Issues and Life Science page on the SEPUP web site.
Activity 13	**Aligned with modifications (see comments)**	SG pp B-15-18, Question 1; TG pp B-33-37	This unit/lesson is a part of a conceptual sequence.
Activity 15	**Aligned as designed**	SG pp B-22-27, Questions 1-6; Student Sheet 15.1; TG pp B-54-58	
Activity 16	**Aligned as designed**	SG pp B-28-37; SG p B-37 Questions 2, 4-7; Student Sheet 16.1a, b; TG pp B-67-70	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Life Science ~ LS1C

Content Standard Multicellular organisms have specialized cells that perform different functions. These cells join together to form tissues that give organs their structure and enable the organs to perform specialized functions within organ systems.

Performance Expectation
• Relate the structure of a specialized cell (e.g., nerve and muscle cells) to the function that the cell performs.
• Explain the relationship between tissues that make up individual organs and the functions the organ performs (e.g., valves in the heart control blood flow, air sacs in the lungs maximize surface area for transfer of gases).
• Describe the components and functions of the digestive, circulatory, and respiratory systems in humans and how these systems interact.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 17	**Aligned as designed**	SG pp B-38-44; SG p 43 Questions 4, 6; Student Sheet 17.1; TG pp B-75-83	
Activity 18	**Aligned as designed**	SG pp B45-49; SG p B49 Questions 2-5; Student Sheet 18.1; TG pp B-87-96	
Activity 23	**Aligned as designed**	SG pp B-65-69; SG pp B-68-69 Questions 1-8; TG pp B-139-146; Student Sheet 23.1	
Activity 24	**Aligned as designed**	SG pp B-70-71; SG p B-71 Question 2, TG pp B-157-162	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Life Science ~ LS1C

Content Standard	Multicellular organisms have specialized cells that perform different functions. These cells join together to form tissues that give organs their structure and enable the organs to perform specialized functions within organ systems.
Performance Expectation	• Relate the structure of a specialized cell (e.g., nerve and muscle cells) to the function that the cell performs. • Explain the relationship between tissues that make up individual organs and the functions the organ performs (e.g., valves in the heart control blood flow, air sacs in the lungs maximize surface area for transfer of gases). • Describe the components and functions of the digestive, circulatory, and respiratory systems in humans and how these systems interact.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 26	**Aligned as designed**	SG pp B-78-81; SG p B-81, Question 2-4; TG pp B-177-184	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Life Science ~ LS1F

Content Standard Lifestyle choices and living environments can damage structures at any level of organization of the human body and can significantly harm the whole organism.

Performance Expectation • Evaluate how lifestyle choices and environments (e.g., tobacco, drug, and alcohol use, amount of exercise, quality of air, and kinds of food) affect parts of the human body and the organism as a whole.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 11	**Aligned as designed**	SG pp B-4-9; Question 1; TG pp B-1-6	The Unit/Lesson is an integral part of the learning progression.
Activity 13	**Aligned as designed**	SG pp B-15-18; SG p B-18 Question 3; TG pp B-33-37	This unit/lesson is a part of a conceptual sequence.
Activity 16	**Aligned as designed**	SG pp B-33-37; SG p B-37 Question 3; Student Sheet 16.1a, b; TG pp B-67-70	
Activity 28	**Aligned as designed**	SG pp B85-89; SG p B-89, Questions 1,2 and 4; TG pp B-195-198; Student Sheet 28.1	

Alignment of Washington 6-8 Science Standards with
SEPUP Body Works
Life Science ~ LS1F

Content Standard Lifestyle choices and living environments can damage structures at any level of organization of the human body and can significantly harm the whole organism.

Performance Expectation • Evaluate how lifestyle choices and environments (e.g., tobacco, drug, and alcohol use, amount of exercise, quality of air, and kinds of food) affect parts of the human body and the organism as a whole.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Activity 29	**Aligned as designed**	SG pp B-90-92, SG p B-92 Questions 1, 2; TG pp B-209-215; Student Sheet 29.1, 29.2	