

WASHINGTON STATE LASER

Alignment of Washington 6-8
Science Standards by Lesson Number for

SEPUP

Body Works

November 1, 2010

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 11**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
LS1F	Lifestyle choices and living environments can damage structures at any level of organization of the human body and can significantly harm the whole organism.	<ul style="list-style-type: none"> • 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. 	SG pp B-4-9; Question 1; TG pp B-1-6	Aligned as designed	The Unit/Lesson is an integral part of the learning progression.

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 12**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
INQE	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.	<ul style="list-style-type: none"> • 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. 	SG pp B-10-14 (Part C: Modeling The Human Body), Questions 3-4; TG pp B-9-19	Aligned as designed	
LS1C	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.	<ul style="list-style-type: none"> • 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 	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	Aligned with modifications (see comments)	Teacher has multiple opportunities to reinforce the concept by using the activities found on Issues and Life Science page on the SEPUP web site.

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 13**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
LS1C	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.	<ul style="list-style-type: none"> • 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 	SG pp B-15-18, Question 1; TG pp B-33-37	Aligned with modifications (see comments)	This unit/lesson is a part of a conceptual sequence.
LS1F	Lifestyle choices and living environments can damage structures at any level of organization of the human body and can significantly harm the whole organism.	<ul style="list-style-type: none"> • 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. 	SG pp B-15-18; SG p B-18 Question 3; TG pp B-33-37	Aligned as designed	This unit/lesson is a part of a conceptual sequence.

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 14**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
INQD	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.	<ul style="list-style-type: none"> 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. 	SG pp B-19-21 Part B: Designing the Experiment; SG p B-21 Question 1, 4; TG pp B-42-46; TR 200	Aligned with modifications (see comments)	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 ~ Activity 15**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
LS1C	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.	<ul style="list-style-type: none"> • 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 	SG pp B-22-27, Questions 1-6; Student Sheet 15.1; TG pp B-54-58	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 16**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
INQE	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.	<ul style="list-style-type: none"> • 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. 	SG pp B-28-31, Question 1; TG pp B-67-70	Aligned as designed	
LS1C	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.	<ul style="list-style-type: none"> • 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 	SG pp B-28-37; SG p B-37 Questions 2, 4-7; Student Sheet 16.1a, b; TG pp B-67-70	Aligned as designed	
LS1F	Lifestyle choices and living environments can damage structures at any level of organization of the human body and can significantly harm the whole organism.	<ul style="list-style-type: none"> • 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. 	SG pp B-33-37; SG p B-37 Question 3; Student Sheet 16.1a, b; TG pp B-67-70	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 17**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
INQE	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.	<ul style="list-style-type: none"> • 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. 	SG pp B-38-44; TG pp B75-83	Aligned with modifications (see comments)	The teacher needs to be intentional about discussing the standard.
LS1C	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.	<ul style="list-style-type: none"> • 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 	SG pp B-38-44; SG p 43 Questions 4, 6; Student Sheet 17.1; TG pp B-75-83	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 18**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
SYSA	Any system may be thought of as containing subsystems and as being a subsystem of a larger system.	<ul style="list-style-type: none"> Given a system, identify subsystems and a larger encompassing system 	SG pp B-45-49; SG p B-49 Question 3-5; TG pp B-87-96	Aligned with modifications (see comments)	Teacher must be intentional about use of the terms systems and subsystems.
SYSC	The output of one system can become the input of another system.	<ul style="list-style-type: none"> Give an example of how output of matter or energy from a system can become input for another system 	SG pp B-45-49; SG p B-49 Question 3-5; TG pp B-87-96	Aligned with modifications (see comments)	Teacher must be intentional about use of the terms input and output.
INQE	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.	<ul style="list-style-type: none"> 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. 	SG pp B-45-49; SG p B-49 Question 1; TG pp B-87-96	Aligned with modifications (see comments)	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 ~ Activity 18**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
LS1C	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.	<ul style="list-style-type: none"> • 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 	SG pp B45-49; SG p B49 Questions 2-5; Student Sheet 18.1; TG pp B-87-96	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 19**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
SYSC	The output of one system can become the input of another system.	<ul style="list-style-type: none"> • Give an example of how output of matter or energy from a system can become input for another system 	SG pp B-50-53; SG p B-52 Questions 1, 2; TG pp B-103-109	Aligned as designed	
INQC	Collecting, analyzing, and displaying data are essential aspects of all investigations.	<ul style="list-style-type: none"> • 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. 	SG pp B-50-53; SG p B-53 Question 4; TG pp B-103-109; Student Sheet 19.1	Aligned with modifications (see comments)	The unit/lesson is an integral part of a learning progression.

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 20**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
APPE	Scientists and engineers often work together to generate creative solutions to problems and decide which ones are most promising.	<ul style="list-style-type: none"> • Collaborate with other students to generate creative solutions to a problem, and apply methods for making tradeoffs to choose the best solution. 	SG pp B-54-57; SG p B-57 Questions 1-6; TG pp B-113-119; Student Sheet 20.1	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 21**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
INQE	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.	<ul style="list-style-type: none"> • 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. 	SG pp B-59-61; SG p 61 Questions 1-3; TG pp B-123-128; Student Sheet 20.1	Aligned with modifications (see comments)	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.

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 22**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
INQE	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.	<ul style="list-style-type: none"> • 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. 	SG pp B-62-64; SG p B-64 Question 1; TG pp B-133-138	Aligned as designed	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.

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 23**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
<p>LS1C</p>	<p>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.</p>	<ul style="list-style-type: none"> • 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 	<p>SG pp B-65-69; SG pp B-68-69 Questions 1-8; TG pp B-139-146; Student Sheet 23.1</p>	<p>Aligned as designed</p>	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 24**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
SYSC	The output of one system can become the input of another system.	<ul style="list-style-type: none"> • Give an example of how output of matter or energy from a system can become input for another system 	SG pp B-70-71; TG pp B-157-162; Student Sheet B-163	Aligned with modifications (see comments)	Teacher must be intentional about use of the terms input, output and energy of system.
APPF	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.	<ul style="list-style-type: none"> • 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. 	SG pp B-70-71; SG p B-71 Questions 1,3, 4; TG pp B-157-162	Aligned as designed	
LS1C	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.	<ul style="list-style-type: none"> • 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 	SG pp B-70-71; SG p B-71 Question 2, TG pp B-157-162	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 25**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
APPA	People have always used technology to solve problems. Advances in human civilization are linked to advances in technology.	<ul style="list-style-type: none"> Describe how a technology has changed over time in response to societal challenges. 	SG pp B-72-77; SG p B-77 Question 2,4, 5; TG pp B-165-172; Student Sheet 25.1	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 26**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
LS1C	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.	<ul style="list-style-type: none"> • 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 	SG pp B-78-81; SG p B-81, Question 2-4; TG pp B-177-184	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 27**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
INQC	Collecting, analyzing, and displaying data are essential aspects of all investigations.	<ul style="list-style-type: none"> • 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. 	SG pp B-82-84, Question 3; TG pp B-189-192	Aligned as designed	
INQE	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.	<ul style="list-style-type: none"> • 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. 	SG pp B-82-84; SG p B-84 Questions 1-3, TG pp B-189-192	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 28**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
LS1F	Lifestyle choices and living environments can damage structures at any level of organization of the human body and can significantly harm the whole organism.	<ul style="list-style-type: none"> 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. 	SG pp B85-89; SG p B-89, Questions 1,2 and 4; TG pp B-195-198; Student Sheet 28.1	Aligned as designed	

**Alignment of Washington 6-8 Science Standards with
SEPUP Body Works ~ Activity 29**

Standard	Content Standard	Performance Expectation	Evidence of Alignment	Alignment	Alignment Comments
<p>LS1F</p>	<p>Lifestyle choices and living environments can damage structures at any level of organization of the human body and can significantly harm the whole organism.</p>	<ul style="list-style-type: none"> 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. 	<p>SG pp B-90-92, SG p B-92 Questions 1, 2; TG pp B-209-215; Student Sheet 29.1, 29.2</p>	<p>Aligned as designed</p>	