

WASHINGTON STATE LASER

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

STC/MS

Organisms, Micro to Macro

November 1, 2010

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 07	Aligned with modifications (see comments)	Reading: Plant and Animal Cells SG pp 83-85; Inquiry 7.1-7.4 SG pp 87-93	The teacher needs to be intentional about discussing the standard. Each cell can be discussed as both a system and a subsystem.
Lesson 12	Aligned as designed	Extension 1 TG p 207	
Lesson 13	Aligned as designed	Video: Body by Design	
Lesson 16	Aligned as designed	Reading: The Transparent Water Flea SG p 193	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Systems ~ SYSD**

Content Standard In an open system, matter flows into and out of the system. In a closed system, energy may flow into or out of the system, but matter stays within the system.

Performance Expectation • Given a description of a system, analyze and defend whether it is open or closed.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 10	Aligned as designed	Inquiry 10.3 SG pp 126-128; Reading: Looking at Leaves SG pp 129-131; Extension 2-3 TG pp 175-176	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Inquiry ~ INQB**

Content Standard

Different kinds of questions suggest different kinds of scientific investigations.

Performance Expectation

- Plan and conduct a scientific investigation (e.g., field study, systematic observation, controlled experiment, model, or simulation) that is appropriate for the question being asked.
- Propose a hypothesis, give a reason for the hypothesis, and explain how the planned investigation will test the hypothesis.
- Work collaboratively with other students to carry out the investigations.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 06	Aligned as designed	Extension 2, 6, and 7 TG pp 89-90	
Lesson 14	Aligned with modifications (see comments)	Inquiry 14.1 SG p 174; Student Sheet 14.1 TG pp 251-252; Extensions 1-2 TG p 247	Extensions should use a designing an investigation template.
Lesson 15	Aligned as designed	Inquiry 15.1 SG pp 184-185; Student Sheet 15.1 TG pp 261-265	
Lesson 18	Aligned as designed	Extensions 2, 4, and 6 TG pp 299-300	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 02	Aligned as designed	Inquiry 2.3 SG pp 18-21; Student Sheet 2.3B TG pp 29-31; Extension 3 TG p 25; Extension 1 TG pp 24-25	
Lesson 03	Aligned as designed	Inquiry 3.1, 3.2, 3.3 SG pp 30-33; Extension 4 TG p 41; Student Sheet 3.1, 3.2, 3.3 TG pp 43-47	
Lesson 04	Aligned as designed	Inquiry 4.2 SG pp 41-42; Student Sheet 4.2 TG pp 55-56	
Lesson 05	Aligned as designed	Student Sheet 5.1 TG p 71; Table 5.1 SG p 63, Inquiry 5.4 SG p 55	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 06	Aligned as designed	Inquiry 6.1 SG pp 65-68; Inquiry Master 6.1A, 6.1B TG pp 93-98; Inquiry 6.2 SG pp 69-74; Student Sheet 6.2 TG pp 100-101; Inquiry 6.3 SG pp 75-77; Student Sheet 6.3 TG pp 102-104; Extension 1 and 4 TG p 89; Extension 8 TG p 90	
Lesson 07	Aligned as designed	Inquiry 7.1-7.4 SG pp 87-93; Student Sheets 7.1-7.4 TG pp 122-126; Extension 1-5, 7-10 TG pp 118-119	
Lesson 09	Aligned as designed	Inquiry 9.1 SG pp 109-110	
Lesson 09	Aligned as designed	Inquiry 9.1 SG pp 108-110; Student Sheet 9.1 TG pp 163-165; Extensions 2-4 TG p 160	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 10	Aligned as designed	Inquiry 10.1 SG p 122-123; Student Sheet 10.1 TG p 179; Inquiry 10.3 SG pp 126-127; Student Sheet 10.3 TG pp 182-184; Extensions 4-8 TG p 176	
Lesson 11	Aligned as designed	Inquiry 11.1-11.3 SG pp 136-140; Student Sheet 11.2 TG p 200	
Lesson 12	Aligned as designed	Inquiry 12.1-12.2 SG pp 148-151; Student Sheet 12.1A, 12.1B TG pp 209-214	
Lesson 14	Aligned as designed	Inquiry 14.1-14.2 SG pp 174-176; Student Sheets 14.1 TG pp 251-252; Inquiry Master 14.2 TG p 250; Extensions 1-2 TG p 247	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 15	Aligned as designed	Inquiry 15.1 SG pp 184-185; Student Sheet 15.1 TG pp 261-265; Extensions 1-2 TG p 260	
Lesson 16	Aligned with modifications (see comments)	Inquiry 16.1-16.2 SG pp 190-192; Student Sheets 16.1, 16.2A, 16.2B TG pp 275-279; Extension 1, 3 TG p 273	Extension 1, eliminate nicotine if school prohibits.
Lesson 17	Aligned as designed	Inquiry 17.1-17.3 SG pp 197-198; Student Sheets 17.1-17.3 TG pp 289-291; Extension 1 TG pp 287-288	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 04	Aligned as designed	Inquiry 4.1 SG p 40; Extension 1 TG p 53	
Lesson 05	Aligned as designed	Inquiry 5.1 SG pp 51-52; Extension 6 TG p 70	
Lesson 07	Aligned as designed	Extension 1 TG p 118	
Lesson 08	Aligned as designed	Inquiry 8.1-8.2 SG pp 97-101; Extension 4 TG p 142	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 10	Aligned as designed	Inquiry 10.2 SG pp 124-125; Student Sheet 10 TG pp 180-181	
Lesson 12	Aligned as designed	Inquiry 12.1 SG pp 148-149	
Lesson 17	Aligned as designed	Extension 5 TG p 288	
Lesson 18	Aligned as designed	Inquiry 18.2 SG pp 207-208; Extension 1 TG p 299	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Inquiry ~ INQG**

Content Standard

Scientific reports should enable another investigator to repeat the study to check the results.

Performance Expectation

• Prepare a written report of an investigation by clearly describing the question being investigated, what was done, and an objective summary of results. The report should provide evidence to accept or reject the hypothesis, explain the relationship between two or more variables, and identify limitations of the investigation.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 13	Aligned with modifications (see comments)	Inquiry 13.1 SG pp 159-165	The unit/lesson is an integral part of a learning progression.

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Inquiry ~ INQI**

Content Standard Scientists and engineers have ethical codes governing animal experiments, research in natural ecosystems, and studies that involve human subjects.

Performance Expectation • Demonstrate ethical concerns and precautions in response to scenarios of scientific investigations involving animal experiments, research in natural ecosystems, and studies that involve human subjects.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 19	Aligned as designed	Reading: Hello, Dolly SG pp 233-235	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 02	Aligned as designed	Reading: Microscope Pioneers SG pp 26-27	
Lesson 05	Aligned with modifications (see comments)	Reading: Wisconsin Fast Plants SG pp 56-58	Teacher must be intentional about sharing "Sprouting in Space" section of reading.
Lesson 11	Aligned as designed	Extensions 3, 5 TG p 193	
Lesson 14	Aligned as designed	Reading: There's a Fungus Among Us SG pp 177-179; Extension 4 TG p 247	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Application ~ APPB**

Content Standard Scientists and technological designers (including engineers) have different goals. Scientists answer questions about the natural world; technological designers solve problems that help people reach their goals.

Performance Expectation • Investigate several professions in which an understanding of science and technology is required. Explain why that understanding is necessary for success in each profession.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 09	Aligned as designed	Extensions 3-4 TG p 160	
Lesson 11	Aligned as designed	Reading: Mighty Microbes SG pp 143-145; Extensions 1-2 TG p 192	
Lesson 11	Aligned as designed	Reading: Mighty Microbes SG pp 143-145	
Lesson 14	Aligned as designed	Extension 4 TG p 247	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Application ~ APPB**

Content Standard Scientists and technological designers (including engineers) have different goals. Scientists answer questions about the natural world; technological designers solve problems that help people reach their goals.

Performance Expectation • Investigate several professions in which an understanding of science and technology is required. Explain why that understanding is necessary for success in each profession.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 19	Aligned as designed	Extension 4 TG p 317; Reading: Hello, Dolly SG pp 233-235	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Application ~ APPH**

Content Standard People in all cultures have made and continue to make contributions to society through science and technology.

Performance Expectation • Describe scientific or technological contributions to society by people in various cultures.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 02	Aligned as designed	Reading: Microscope Pioneers SG pp 26-27	
Lesson 15	Aligned as designed	Reading: Introducing Yeast SG pp 181-182; Reading: Yeast SG pp 186-187	
Lesson 18	Aligned as designed	Reading: Botany's Father SG p 211; Reading: Growing Seedless Fruits SG pp 209-210	
Lesson 19	Aligned as designed	Reading: Mendel's Discoveries SG pp 226-229; Reading: What Are the Chances? SG p 232	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS1A**

Content Standard

All organisms are composed of cells, which carry on the many functions needed to sustain life.

Performance Expectation

- Draw and describe observations made with a microscope showing that plants and animals are made of cells, and explain that cells are the fundamental unit of life.
- Describe the functions performed by cells to sustain a living organism (e.g., division to produce more cells, taking in nutrients, releasing waste, using energy to do work, and producing materials the organism needs).

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 01	Aligned as designed	Reading: That's Life SG pp 6-7	
Lesson 03	Aligned with modifications (see comments)	Inquiry 3.2 and 3.3 SG pp 32-33	Teacher must be intentional about sharing that blood pulsation and regeneration are functions needed to sustain life.
Lesson 07	Aligned as designed	Lesson 7 Introduction SG p 82; Reading: Plant and Animal Cells SG pp 83-85; Inquiry 7.1 SG pp 87-88; Inquiry 7.2 SG pp 89-90; Inquiry 7.3 SG p 90; Inquiry 7.4 SG p 93; Student Sheet 7.1-7.4 TG pp 122-126	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS1B**

Content Standard

One-celled organisms must contain parts to carry out all life functions.

Performance Expectation

• Draw and describe observations made with a microscope showing that a single-celled organism (e.g., paramecium) contains parts used for all life functions.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 04	Aligned as designed	Inquiry 4.2 SG pp 41-42; Student Sheet 4.2 TG pp 45-46	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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.

- 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.

Performance Expectation

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 10	Aligned as designed	Inquiry 10.1-10.3 SG pp 122-128; Reading: Looking at Leaves SG pp 129-131; Extension 5 TG p 176	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS1D**

Content Standard

Both plant and animal cells must carry on life functions, so they have parts in common, such as nuclei, cytoplasm, cell membranes, and mitochondria. But plants have specialized cell parts, such as chloroplasts and cell walls, which provide plants their overall structure.

Performance Expectation

- Use labeled diagrams or models to illustrate similarities and differences between plant and animal cell structures and describe their functions (e.g., both have nuclei, cytoplasm, cell membranes, and mitochondria, while only plants have chloroplasts and cell walls).

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 07	Aligned as designed	Reading: Plant and Animal Cells SG pp 83-85; Inquiry 7.1-7.4 SG pp 87-93; Extension 1, 2, 5, 7, 9 and 10 TG pp 118-119	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS1E**

Content Standard

In classifying organisms, scientists consider both internal and external structures and behaviors.

Performance Expectation

• Use a classification key to identify organisms, noting use of both internal and external structures as well as behaviors.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 01	Aligned as designed	Inquiry 1.1, SG pp 4-5; Reading: What's in an Organism's Name pp 8-11; Student Sheet 1.1 TG pp 13-14	
Lesson 02	Aligned as designed	Reading: Intriguing Insects SG pp 22-25; Reading: Dr. Matthews and the WOWBug SG pp 24-25	
Lesson 03	Aligned as designed	Lesson 3 Introduction SG p 28; Extension 3 TG p 41	
Lesson 06	Aligned as designed	Lesson 6 Introduction SG p 64	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS1E**

Content Standard

In classifying organisms, scientists consider both internal and external structures and behaviors.

Performance Expectation

• Use a classification key to identify organisms, noting use of both internal and external structures as well as behaviors.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 10	Aligned as designed	Extension 8 TG p 176	
Lesson 11	Aligned as designed	Reading: The Fine Art of Naming Organisms SG pp 133-134; Reading: Welcome to the Monera Kingdom! SG pp 141-142	
Lesson 12	Aligned as designed	Inquiry 12.1 SG pp 148-149; Student Sheet 12.1A and 12.1B TG pp 209-210, 212-213	
Lesson 13	Aligned as designed	Inquiry 13.1 SG pp 159-165	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS1E**

Content Standard

In classifying organisms, scientists consider both internal and external structures and behaviors.

Performance Expectation

• Use a classification key to identify organisms, noting use of both internal and external structures as well as behaviors.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 14	Aligned with modifications (see comments)	Lesson 14 Introduction SG p 172	Kingdom only.
Lesson 16	Aligned as designed	Lesson 16 Introduction SG p 188; Inquiry 16.1 SG p 190; Student Sheet 16.1 TG p 275	
Lesson 20	Aligned as designed	Inquiry 20.1-20.2 SG pp 238-240	The unit/lesson is an integral part of the learning progression. Students are asked to demonstrate conceptual understanding of standards in Lessons 1-19.

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS2A**

Content Standard An ecosystem consists of all the populations living within a specific area and the nonliving factors they interact with. One geographical area may contain many ecosystems.

Performance Expectation

- Explain that an ecosystem is a defined area that contains populations of organisms and nonliving factors.
- Give examples of ecosystems (e.g., Olympic National Forest, Puget Sound, one square foot of lawn) and describe their boundaries and contents.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 01	Aligned with modifications (see comments)	Inquiry 1.1 SG pp 4-5; Extension 3 TG p 12	Teacher must be intentional about use of the terms (vocabulary) "habitat" as part of an ecosystem.
Lesson 04	Aligned as designed	Inquiry 4.1 SG p 40; Reading: Excuse Me SG pp 43-45; Extension 2 TG p 53	
Lesson 12	Aligned as designed	Reading: The Changing Pond SG pp 152-155; Extension 6 TG p 207	
Lesson 13	Aligned as designed	Inquiry 13.1 SG pp 159-165; Reading: Habitats SG pp 169-171	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS2A**

Content Standard An ecosystem consists of all the populations living within a specific area and the nonliving factors they interact with. One geographical area may contain many ecosystems.

Performance Expectation

- Explain that an ecosystem is a defined area that contains populations of organisms and nonliving factors.
- Give examples of ecosystems (e.g., Olympic National Forest, Puget Sound, one square foot of lawn) and describe their boundaries and contents.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 14	Aligned as designed	Reading: There's a Fungus Among Us SG pp 177-179	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS2B**

Content Standard Energy flows through an ecosystem from producers (plants) to consumers to decomposers. These relationships can be shown for specific populations in a food web.

Performance Expectation • Analyze the flow of energy in a local ecosystem, and draw a labeled food web showing the relationships among all of the ecosystem’s plant and animal populations.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 12	Aligned with modifications (see comments)	Reading: The Changing Pond SG pp 152-155; Extension 6 TG p 207	Teacher must be intentional about use of the terms (vocabulary) used in the standard. (producers, consumers, decomposers, populations, food web/food chain.
Lesson 14	Aligned with modifications (see comments)	Reading: There's a Fungus Among Us SG pp 177-179	Teacher must be intentional about use of the terms (vocabulary) symbiosis/symbiotic

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS2C**

Content Standard

The major source of energy for ecosystems on Earth’s surface is sunlight. Producers transform the energy of sunlight into the chemical energy of food through photosynthesis. This food energy is used by plants, and all other organisms to carry on life processes. Nearly all organisms on the surface of Earth depend on this energy source.

Performance Expectation

- Explain how energy from the Sun is transformed through photosynthesis to produce chemical energy in food.
- Explain that producers are the only organisms that make their own food. Animals cannot survive without producers because animals get food by eating producers or other animals that eat producers.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 10	Aligned as designed	Reading: Looking at Leaves SG pp 129-131; Extensions 2-3 & 7 TG pp 175-176	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS2D**

Content Standard

Ecosystems are continuously changing. Causes of these changes include nonliving factors such as the amount of light, range of temperatures, and availability of water, as well as living factors such as the disappearance of different species through disease, predation, habitat destruction and overuse of resources or the introduction of new species.

Performance Expectation

- Predict what may happen to an ecosystem if nonliving factors change (e.g., the amount of light, range of temperatures, or availability of water or habitat), or if one or more populations are removed from or added to the ecosystem.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 04	Aligned with modifications (see comments)	Extension 3 TG p 53; Reading: Excuse Me SG pp 43-45	Teachers need to emphasize "Everything Changes" from the reading before doing Extension 3.
Lesson 10	Aligned as designed	Extension 8 TG p 176	
Lesson 12	Aligned as designed	Reading: The Changing Pond SG pp 152-155	
Lesson 17	Aligned as designed	Reading: Jellyfish Get a Bad Rap SG pp 202-203	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS2E**

Content Standard Investigations of environmental issues should uncover factors causing the problem and relevant scientific concepts and findings that may inform an analysis of different ways to address the issue.

Performance Expectation

- Investigate a local environmental issue by defining the problem, researching possible causative factors, understanding the underlying science, and evaluating the benefits and risks of alternative solutions.
- Identify resource uses that reduce the capacity of ecosystems to support various populations (e.g., use of pesticides, construction).

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 13	Aligned as designed	Reading: Daphnia's Change of Appetite SG pp 166-168	
Lesson 18	Aligned as designed	Extension 4 TG p 300	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 13	Aligned as designed	Reading: Charles Darwin and His Theory of Evolution SG p 165	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS3C**

Content Standard

Reproduction is essential for every species to continue to exist. Some plants and animals reproduce sexually while others reproduce asexually. Sexual reproduction leads to greater diversity of characteristics because offspring inherit genes from both parents.

Performance Expectation

- Identify sexually and asexually reproducing plants and animals.
- Explain why offspring that result from sexual reproduction are likely to have more diverse characteristics than offspring that result from asexual reproduction.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 03	Aligned with modifications (see comments)	Inquiry 3.3 SG p 33	Teacher must be intentional about sharing "regeneration" as a form of asexual reproduction.
Lesson 05	Aligned as designed	Inquiry 5.4 SG p 55; Reading: Wisconsin Fast Plants SG pp 56-58; From Seed to Adult Plant SG pp 59-62	
Lesson 08	Aligned as designed	Inquiry 8.1-8.2 SG pp 97-101; Reading: Multiply, Divide, and Survive SG pp 102-105; Student Sheets 8.2 TG pp 144-149	Teacher must be intentional about sharing cell division as an introduction to mitosis/meiosis. Mitosis/Meiosis is a high school concept according to the National Science Standards.
Lesson 09	Aligned with modifications (see comments)	Inquiry 9.2 SG pp 111-112; Reading: Methods of Reproduction SG pp 113-115; Reading: The Wonder of Flowering Plants SG pp 116-119; Extension 2 TG p 160	Mitosis/Meiosis information in Reading: Methods of Reproduction is an introduction and is seen in the high school National Science Standards.

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS3C**

Content Standard

Reproduction is essential for every species to continue to exist. Some plants and animals reproduce sexually while others reproduce asexually. Sexual reproduction leads to greater diversity of characteristics because offspring inherit genes from both parents.

Performance Expectation

- Identify sexually and asexually reproducing plants and animals.
- Explain why offspring that result from sexual reproduction are likely to have more diverse characteristics than offspring that result from asexual reproduction.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 12	Aligned as designed	Inquiry 12.2 SG pp 150-151; Student Sheet 12.2 TG p 214; Extension 2 TG p 207	
Lesson 15	Aligned as designed	Reading: Introducing Yeast SG pp 181-182	
Lesson 16	Aligned as designed	Reading: The Transparent Water Flea SG p 193	
Lesson 17	Aligned as designed	Inquiry 17.3 SG p 198; Student Sheet 17.3 TG pp 290-292; Reading: The Hydra SG pp 199-201	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS3C**

Content Standard

Reproduction is essential for every species to continue to exist. Some plants and animals reproduce sexually while others reproduce asexually. Sexual reproduction leads to greater diversity of characteristics because offspring inherit genes from both parents.

Performance Expectation

- Identify sexually and asexually reproducing plants and animals.
- Explain why offspring that result from sexual reproduction are likely to have more diverse characteristics than offspring that result from asexual reproduction.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 18	Aligned as designed	Inquiry 18.1-18.2 SG pp 206-208; Reading: Growing Seedless Fruits SG pp 209-210; Reading: The Cabbage White Butterfly SG pp 212-215	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
Life Science ~ LS3D**

Content Standard

In sexual reproduction the new organism receives half of its genetic information from each parent, resulting in offspring that are similar but not identical to either parent. In asexual reproduction just one parent is involved, and genetic information is passed on nearly unchanged.

Performance Expectation

- Describe that in sexual reproduction the offspring receive genetic information from both parents, and therefore differ from the parents.
- Predict the outcome of specific genetic crosses involving one characteristic (using principles of Mendelian genetics).
- Explain the survival value of genetic variation.

Lesson Number	Alignment	Evidence of Alignment	AlignmentComments
Lesson 19	Aligned with modifications (see comments)	Inquiry 19.1-19.3 SG pp 219-225; Student Sheets 19.1-19.3 TG 319-329; Reading: Mendel's Discoveries SG pp 226-229; Reading: Heredity-Passing It On SG pp 230-231; Reading: What Are the Chances? SG p 232; Reading: Hello, Dolly SG pp 233-235	Teacher must be intentional about use of the terms (vocabulary): homozygous, heterozygous, dominant, recessive, genotype, phenotype.

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 13	Aligned as designed	Lesson Introduction and Getting Started SG pp 158-159; Video: Body by Design; Reading: Daphnia's Change of Appetite SG pp 166-168	
Lesson 18	Aligned as designed	Lesson 18 Introduction and Getting Started SG pp 204-205; Extension 6 TG p 300	
Lesson 19	Aligned as designed	Extension 2 TG p 317	

**Alignment of Washington 6-8 Science Standards with
STC/MS Organisms, Micro to Macro
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
Lesson 06	Aligned as designed	Reading: The Delicate Balance of Life SG pp 78-79; Reading: Gypsy Moths SG pp 80-81	
Lesson 13	Aligned as designed	Reading: Daphnia's Change of Appetite SG pp 166-168; Reading: Habitats SG pp 169-171	
Lesson 16	Aligned as designed	Inquiry 16.2 SG pp 191-192; Reading: The Transparent Water Flea SG p 193	