MP2c-Molecules and Organisms

Content Area: **Science**
Course(s): **Science 4**
Time Period: **Marking Period 2**
Length: **MP2**
Status: **Published**

Essential Questions

- How do systems within organisms interact to fulfill life processes?
- How do senses function to help animals survive?
- How do internal and external structures function to support the survival of plants and animals?

Big Ideas

- Organisms have both internal and external macroscopic structures that allow for growth, survival, behavior, and reproduction.
- Different sense receptors are specialized for particular kinds of information; animals use their perceptions and memories to guide their actions.

Science and Engineering Practices

Analyzing and Interpreting Data:

- Compare and contrast data collected by different groups in order to discuss similarities and differences in their findings.

Science and Society

Rachel Carson

Ecology, scientist and writer who learned that a chemical called DDT was destroying many ecosystems

Enduring Understandings

Structure and Function

4-LS1.A Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.

Information Processing

4-LS1.D Different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain. Animals are able to use their perceptions and memories to guide their actions.

Focus Areas

Knowledge

- Systems interact to fulfill growth, development, and reproduction, responding to change and use energy.
- Examples of how plant and animal structures, both internally and externally, function to fulfill life processes.
- The difference between instincts and behavior with examples.
- How senses benefit animals in respect to how they respond to their environment.

Skills

- Analyze a plant or animal and explain how the internal and external features support their survival.
- Model how senses are used in respect to the brain in order to respond to their environment.
- Use a model to describe that animals receive different types of information through their senses, process the information in their brains, and respond to the information in different ways.

Understanding

- Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

Resources

Primary Resource

Pearson Interactive Science, 2016

- Chapter 5: Ecosystems
- Chapter 4: Plants and Animals

Secondary Resources

Pearson Leveled Readers

- *Ecosystems*
- *Ecosystem Life*
- *Life in a Pond*
- *Plants and Animals*
- *Animal and Plant Classification*
- *Strange Plants*

Scientific Inquiry

Core

- Permeability Lab
- Camouflage Frogs Hunt
- Frog Extinction Activity
- Video - The Last Frog
- Maze Test (Information Processing)
- Sensory Lab