Unit 3- Animal Super Powers

Content Area: **Science**
Course(s): **Science 1**
Time Period: **Marking Period 3**
Length: **MP 3**
Status: **Published**

Essential Questions

- What is structure and function?
- How do animals use external structures to survive?
- What are some examples of external parts of a plant and animal?
- What behaviors do adult animals and offspring engage in that help the offspring to survive?
- Young organisms are very much, but not exactly, like their parents and also resemble other organisms of the same kind.

Big Ideas

- All organisms have external parts that they use to perform daily functions.
- Animals sense and communicate information and respond to inputs with behaviors that help them grow and survive.

Science and Society

Sonia Ortega

- National Science Foundation program director and a marine biologist.
- Dr. Winifred Goldring
- New York State geologist and the first person to do exhaustive work on stromatolites

Cross-Curricular Integration

Integration Area: Language Arts

W.SE.1.6. With guidance and support from adults, gather and select information from multiple sources to

answer a question or write about a topic

Activity: Students will write about how an animal uses one of it's external structures to survive in their All About Animal's book.

Science and Engineering Practices

Obtaining, Evaluating, and Communicating Information

- Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.

Constructing Explanations and Designing Solutions

- Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.

CSDT Technology Integration

8.1.2.CS.2: Explain the functions of common software and hardware components of computing

Activity: Students will complete the Mystery Science Birds Have Beaks.

Enduring Understandings

New Jersey State Learning Standards

From Molecules to Organisms: Structure and Processes

- 1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.
    - LS1.A: Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots,

stems, leaves, flowers, fruits) that help them survive and grow

- LS1.D: Information Processing Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs.

- 1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
    - LS1.B: Growth and Development of Organisms Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive.

Heredity: Inheritance and Variation of Traits

- •1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
    - LS3.A: Inheritance of Traits Young animals are very much, but not exactly like, their parents. Plants also are very much, but not exactly, like their parents.
    - LS3.B: Variation of Traits Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.

Focus Areas

Knowledge

- All organisms have external parts.
- Different animals use their body parts in different ways to see hear, grasp objects, protect themselves and survive.

Skills

- Describe how structure relates to function.
- Describe/list external parts of an animal.

Understandings

- Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

Resources

Primary Resources

- Mystery Science

Core

- Mystery Science: Parent & Offspring Traits: How can you help a lost baby animal find its parents?
- Mystery Science: Animal Structures and Survival: Why do birds have beaks?
- Mystery Science: Animal Behavior and Offspring Survival: Why do baby ducks follow their mother?
- Mystery Science: Camouflage and Animal Survival: Why are polar bears White?
- Mystery Science: Inheritance and Variation of Traits: Why do family members look alike?

Supplemental

- BrainPop Jr. Camouflage
- PebbleGo
- Living Vs. Non-Living Sorts
- What worksheet do all living things need worksheet