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Lesson Overview: Adaptations

Grades 2-5

Big Idea/Learning Goal

Organisms have behavioral and physical adaptations that allow them to thrive in different environments

Essential Questions

- What are **adaptations**?
- How do adaptations allow organisms to **thrive** in different environments?
- How do we **identify** different adaptations and their functions?
- How do you think plants and animals **adapted** to live in the Florida panhandle?

Objectives

- Students will **differentiate** between physical and behavioral adaptations
- Students will **understand** that adaptations allow organisms to thrive in a particular environment
- Students will **identify** key adaptations of organisms in different habitats, including the habitats of the Florida panhandle.
- Students will **identify** behavioral and physical adaptations for plants, animals, fungi, and other organisms
- Students will **compare, contrast, and discuss** the adaptation traits of different organisms
- Students will **design and share** their own organisms with adaptations.

Assessments

- Okaloosa species adaptation RAFT presentations
- "Life" Documentary adaptation analysis
- Observing and drawing inferences about bird beak functions
- Questioning and discussions
- Student conversations during "Go Adapt"
- Create a Creature adaptations and presentations

Activities

1. Introduction to Adaptations
2. Physical Adaptations
3. Behavioral Adaptations
4. Go Adapt!
5. Create a Creature

Vocabulary

Adaptation: A physical characteristic (physical adaptation) or behavior (behavioral adaptation) that allows an organism to survive and thrive in its environment
Camouflage: A physical adaptation in which an organism blends into its environment
Competition: Two or more organisms competing for access to the same resources
Estivation: Prolonged torpor/dormancy during hot or dry period such as summer months
Hibernation: Prolonged dormancy with reduced metabolism during cold period such as winter
Migration: Moving from one place to another for resources, breeding, or climate
Mimicry: Taking on physical or behavioral characteristics of another organism in order to survive
Seed dispersal: The movement of seeds from plant by wind, water, or animal transport
Symbiosis: Two organisms occurring or interacting together that either benefits both organisms (mutualism), benefits one and does not affect other (commensalism), or benefits one organism and harms the other (parasitism)

Next Generation Science Standards

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
3-LS2-1. Construct an argument that some animals form groups that help members survive.
3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.
3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
4-LS1-2. 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.

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