

LOUISIANA SCIENCE STANDARDS INTRODUCED OR REINFORCED DURING TREES AND TRAILS FIELD TRIPS

SCIENCE

3rd Grade

FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES

- **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.
UE.LS1B.a: Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles.

ECOSYSTEMS: INTERACTIONS, ENERGY, AND DYNAMICS

- **3-LS2-1:** Construct and support an argument that some animals form groups that help members survive.
UE.LS2D.a: Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size.

HEREDITY: INHERITANCE AND VARIATION OF TRAITS

- **3-LS3-1:** Analyze and interpret data to provide evidence that plants and animals have traits inherited from their parents and that variation of these traits exists in a group of similar organisms.
UE.LS3A.a: Many characteristics of organisms are inherited from their parents.
UE.LS3B.a: Different organisms vary in how they look and function because they have different inherited information.
- **3-LS3-2:** Use evidence to support the explanation that traits can be influenced by the environment.
UE.LS3A.b: Other characteristics result from individuals' interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment.

BIOLOGICAL EVOLUTION: UNITY AND DIVERSITY

- **3-LS4-1:** Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.
UE.LS4A.a: Some kinds of plants and animals that once lived on Earth are no longer found anywhere.

- **3-LS4-2:** Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

UE.LS4B.a: Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing.

- **3-LS4-3:** Construct and support an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

UE.LS4C.a: For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all.

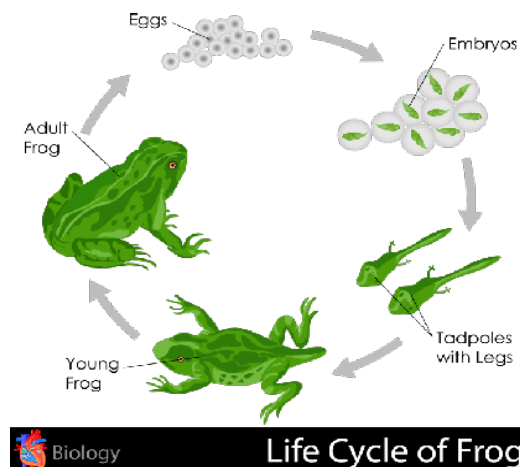
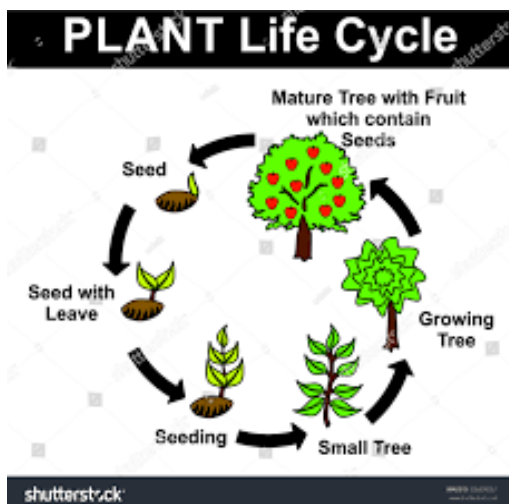
- **3-LS4-4:** Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

UE.LS2C: When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die.

UE.LS4D.a: Populations live in a variety of habitats, and change in those habitats affects the organisms living there.

ANCHOR PHENOMENA THAT CAN BE INTRODUCED IN THE CLASSROOM (PRE-TRIP OPTIONS)

1. Looking at the images below, compare the life cycle of a plant to that of the animal.



2. Link to the Life Cycle of a Mosquito:

<https://www.youtube.com/watch?v=mroLfTPhL90>

3. Link to Monarch Butterfly Cycle: Also talks about warning colors and chemicals to prevent predators from eating them.
<https://www.youtube.com/watch?v=xT6UsQwZyy0>
4. This link compares frogs and toads:
<http://www.kidzone.ws/lw/frogs/facts8.htm>
5. Different species of frogs have different sounds. This is a link to frog sounds:
<http://www.naturenorth.com/spring/sound/shfrsnd.html>
6. Camouflage is an important for advantage for survival.
7. Honeybees and ants are social insects.
8. Habitat loss and the Bengal tiger.

ACTIVITIES TO EXTEND CONCEPTUAL UNDERSTANDING OF PERFORMANCE EXPECTATIONS

1. This link has information regarding adopting an endangered species:
<https://educators.brainpop.com/lesson-plan/extinct-and-endangered-species-activities-for-kids/>
2. Read the book, *Caterpillar to Butterfly*-National Geographic Readers, by Laura Marsch. Students can “act out” the life cycle of a butterfly.
3. Make your own Ladybug life cycle using the following as a guide. You will need paper plates, black construction paper, red and black markers or paint, paper fasteners, and glue. Divide the paper plate in four using a marker, draw the 4 stages in the life cycle and label each, (egg stage, larvae stage, pupa stage, and adult stage).



4. How does camouflage help this organism? Then view the video on other animals that use camouflage for survival- 12 *Coollest Camouflage Animals and Insects*- <https://www.youtube.com/watch?v=RBdbGPK1ZIQ>



5. Endangered Species Day is May 16, 2018. Celebrate it at school or in the community. Student can write poems, draw pictures, perform skits, for example, to promote awareness of endangered plants and animals.
6. What are some factors that would cause a plant to go extinct?