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## Level 3 Module 2: Survival

### CONTENT OVERVIEW

**ANCHOR PHENOMENON:** Butterfly Survival

*Essential Question:* How do butterflies survive over time in a changing environment?

Clues about long ago environments including fossil evidence help us understand how butterflies responded to changes and survived. We can apply this understanding to other plants and animals that have survived and those that have become extinct.

**CONCEPT 1:** Fossil Evidence

*Focus Question:* What do fossils reveal about the past?

Studying butterfly fossils helps us gather information about butterflies and their environment in the past.

**CONCEPT 2:** Suitability to Environment

*Focus Question:* How do organisms get what they need to survive?

Observing caterpillars in an artificial habitat helps us understand what organisms need from their habitats to survive and what characteristics help organisms survive.

**CONCEPT 3:** Effects of Environmental Change

*Focus Question:* What happens to organisms when the environment changes?

Learning about seasonal changes and long-term changes helps us understand how these changes affect organisms. Some organisms survive, some move, and some die.

**APPLICATION OF CONCEPTS:** Helping Monarchs Survive Changing Environments

After learning about threats specific to monarch butterflies, we will design solutions to protect butterflies and write letters explaining the merits of these solutions.

## SUPPORTING OUR CLASSROOM

If you have any of the items listed, please consider donating them to our class to use in our science investigations.

- 9-ounce plastic cups
- Paper plates

## SUPPORTING YOUR YOUNG SCIENTIST AT HOME

### ONGOING CONVERSATIONS

Support science learning at home by having conversations about survival topics. Here are some suggestions to get you started:

- Observe and discuss the different plants and animals you notice in your community. Talk about how the animals and plants are suited for and have adapted to different habitats.
- Notice or remember seasonal changes in your community and what happens to the plants and animals during different seasons of the year.
- Talk about or research changes in your community and their impact on animal habitats.

### ACTIVITIES

These activities support and extend the learning going on in the classroom:

- Help your student keep a nature journal of animals noticed around your home. This data could be graphed and compared over the course of a few days or weeks.
- Plant a butterfly bush (*Buddleia*) or another plant that attracts butterflies at your home or in a nearby community garden. Observe the visitors to these plants.
- Visit a natural history museum to explore fossils and timelines of Earth's past.
- Visit a nearby nature park or wildlife sanctuary to learn more about local flora and fauna. Take notes or draw sketches to record what you observe.

### BOOKS

Local libraries are a great resource for fiction and nonfiction books related to survival. Browse the library catalog or start with these suggestions:

- *A Butterfly Is Patient*, Dianna Hutts Aston and Sylvia Long
- *Marvelous Mattie: How Margaret E. Knight Became an Inventor*, Emily Arnold McCully
- *Amos & Boris*, William Steig

## WEBSITES

Keep the learning going about survival by exploring these internet resources:

- Visit <https://journeynorth.org/monarchs> to learn more about monarch butterfly migrations in real time. You can even sign up to report your own sightings of monarch butterflies.
- Visit <https://www.nps.gov/flfo/learn/index.htm> to learn more about the Florissant Fossil Beds National Monument.