

Habitat & Adaptations

Teacher's Guide



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HABITAT & ADAPTATIONS

SUBJECT:

Science &
Social Studies

GRADES:

3/4-6

CURRICULUM CONNECTIONS:

Grade 3:

Resources and Wealth:
Basic human needs

Grade 4:

Habitats and
Communities

Grade 5:

Human Body Systems:
Comparing human
adaptations with
animal adaptations

Grade 6:

Diversity of Living
Things

OVERVIEW:

All animals live in habitats. Habitats provide animals with all the essentials for their survival: food, water, shelter, space and more. But there is more to their survival than just these essentials. This program looks at how animals adapt to their environment. Using both physical (also called structural) and behavioural adaptations, wildlife can survive in a variety of habitats.

OBJECTIVES:

1. Students will learn about the different biomes in North America.
2. Students will discuss the needs of living things.
3. Students will learn about the interactions of living things.
4. Students will be introduced to physical and behavioural adaptations of several animals at the Zoo.

KEY VOCABULARY:

Habitat: Where a living organism naturally lives including all the living and non-living interactions.

Biome: A large, naturally-occurring community classified according to the plants and animals that live in it. It comprises many habitats with similar features, vegetation, temperature and precipitation.

Physical Adaptation: Body structures that enable an animal (or plant) to survive in its environment.

Behavioural Adaptation: The things animals (or plants) do to stay alive in their environment.

BACKGROUND INFORMATION

An animals' habitat must be able to provide for all its requirements for life. Whether or not an animal is successful, comes down to their adaptations - either physical and/or behavioural. The physical features of an organism help them become better suited to its environment - they help them adapt. Physical adaptations may be feathers on a bird that assist in flight or blubber on arctic marine mammals that help keep them warm. A behavioural adaptation is something an organism does to help it survive. For example, some birds migrate to find food or some snakes may play dead to confuse their predators.

PRE-VISIT ACTIVITIES

Activity One

All animals, including humans live in habitats. In order to survive in a habitat, all your needs for life must be covered. Focus your students on looking at themselves. What do they need for survival? Have the students come up with as many ideas as they can and then chart them as either "needs" or "wants".

Activity Two

Introduce the word adaptations. Ask students what they think the word means and then explain that adaptations are special features or behaviours that animals (including humans) use to eat, move or keep them safe. What adaptations do humans have? (upright posture, opposable thumbs, endurance, sweating to regulate body temperature, learning ability, etc). See how many adaptations for humans your students can come up with and then have them consider what it would be like if we had other adaptations - like the ability to fly, swim under water longer, etc.

Note: we will be focusing on other animal species for the online education program, so keep the pre-visit focus on humans.

POST-VISIT ACTIVITIES

Activity One

Divide the students into groups. Have each group read an Indigenous legend on how an animal got their adaptations (example: Why the Chipmunk's Back is Striped). You can find many online through a Google search. Then, have each group write their own legend using an animal they know and have them explain how it got its adaptations. A variation of this would be to create their own animal, detail its adaptations (set a minimum of 3 adaptations for older students) and if you want to go further, have them each write the legend of how their animal got those adaptations.

Activity Two

Review the various biomes in North America. Have the students pick an animal and research it's specific habitat. What would happen if their habitat changes due to climate change or destruction? How could the animal adapt to survive in its new habitat? Could the animals move to another habitat?