

Essential Questions:

- 1. What do plants and animals need to survive?
- 2. How do humans impact an animal's basic needs?

GSE Standards:

- SKL2: Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.
- \$1L1: Obtain, evaluate, and communicate information about the basic needs of plants and animals.
- S2E3: Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes to the environment.

NGSS Standards:

- K-L\$1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive.
- 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats.

Materials:

- Animal Cards
- Creature Feature Cards
- Plant (real or fake)
- Animal (class pet or toy)

Vocabulary:

- Shelter
- Nutrients
- Adaptations
- Resources



Background:

- In order to survive, plants need access to water, nutrients (soil), sunlight, and air. These are their basic needs.
- An animal also needs specific resources to survive: Nutrients (food), water, air, and shelter. The exact kinds of shelter and nutrition will depend on the species of animal.
- Without resources, animals and plants may struggle to complete their life cycles.
- One of the major threats to an animal's resources is human impact on an ecosystem.
- Climate change, pollution, and overconsumption of resources such as overfishing or deforestation are all examples of negative human impacts.
- Animals and plants have specific adaptations, or characteristics, that help them survive in their ecosystems.
- These features range from fur or scales to flippers or claws and even gills or lungs. Some animals have specific beaks or teeth that allow them eat different diets.
- Plants can also have unique adaptations, from varying root lengths, brightly colored flowers to attract bees, or the size, shape, or texture of their leaves.



Lesson Structure:

- 1. Before the lesson, print and cut the included resource cards, enough for one animal per student. Print the Creature Feature cards, cut them in half, and post them around the room.
- 2. Show students a plant and ask them to brainstorm what it might need to stay alive. Repeat the brainstorm with an animal, recording student answers. Ask students to highlight similarities.
- 3. Pass out the animal cards to students. Instruct students to move to the correct creature feature sign around the room after each question and compare their organism to the other ones at that location.
- 4. Find other animals who live in the same environment.
- 5. Find other animals who have the same body covering.
- 6. Find other animals who move the same way.
- 7. Find other animals who breathe the same way.
- 8. Once students find the correct location, ask them to think about how that adaptation helps them survive in their ecosystem.
- 9. Beaks to eat food, fur to keep them warm, etc.
- 10. Review with students the ways that humans might negatively impact an organism's habitat, and how that impacts their access to their basic needs.



Evaluate:

- 1. Ask students to compare and contrast the needs of plants and animals. Discuss if plants and animals need the same exact resources to survive.
- 2. Ensure that students are correctly identifying animal adaptations and features, and analyzing how they help animals survive.
- 3. Have students identify how human impacts on an environment make it difficult for animals to access needed resources.

Extend:

- 1. Have students draw an ecosystem for an animal that includes all needed resources. Have them circle and label food, shelter, and water.
- 2. Set up a science experiment using three different plants. One receives all the needed resources, one does not receive light, one does not receive water. Make predictions and compare results over time.
- 3. Listen to the following basic needs songs and have students create actions or signs to help remember each of the basic needs.

Songs:

- Needs of a Plant
- Needs of an Animal



















































































MATER

FEATHERS



FUR

HARD

SOFT



SLIMY

ROUGH

GILLS



LUNGS

FINS

LEGS



WINGS