

Animal Compound

ESSENTIAL QUESTION: What are animal adaptations and how do these help fill their ecological niche?

OBJECTIVES: Students will

- Be able to define adaptation and niche
- Give an example of how an adaptation for an animal fills their niche

STANDARDS:

- **SC.5.L.17.1** Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.
- **SC.5.L.15.1** Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.

SAFETY:

- Do not touch an enclosure with any part of your body
- Stay behind the wooden fences at all times
- Stay on the brick trail unless directed elsewhere by your teacher

MATERIALS NEEDED for EXTENSIONS:

- White board
- Dry erase marker
- Eraser
- Skulls
- Kaboom Kit
- Heads up game cards

ENGAGE: Think of an animal and discuss why they look the way they do? Turn and Talk with a neighbor.

Vocabulary:

- **Adaptation:** The change in behavior, physiology, or structure of an organism to allow it to survive in its environment. Ex. The sharp canines of the panther.
- **Ecological Niche:** The job, or role, that an organism performs in its ecosystem. Ex. A dung beetle collecting animal scat and burying it under the ground.

EXPLORE:

- Explain to the students that they are going to be working in their teams to study animal adaptations. At each enclosure, all members will discuss the adaptations they see, with each team member contributing at least one observation and justify their answer (large ears, sharp teeth, eyes on the side of their heads, etc.).
- Then groups will be given time (30 seconds to a minute, bringing the groups back together when most students appear unengaged) to figure out what ecological niche the animal fills (i.e. predator, herbivore, seed disperser, etc.). If there is time, each group will share their idea. Use these observations to assess the students understanding and re-direct them to the content if necessary.

EVALUATE:

- Students will show understanding by giving examples of specific adaptations and/or niche for a given animal.

EXTENSIONS:

- Skulls
- Using teams and white boards
- Demonstration of animals using adaptations (ex: raccoon climbing fence)
- Superhero Adaptations
- Kaboom game
- Heads up game cards

H.O.T. QUESTIONS:

- What can be learned by looking at an animals' teeth?
- Create a reason for why animals have eyes on the side of their head? Do the same for why they have eyes in front of their head.
- Predict what would happen if an animal stopped fulfilling their ecological niche.
- What would happen if an animal's ecological niche changed?