



Wild Kids

Name that Niche

STUDENT GUIDE

Predators and prey both have adaptations that help them survive. Adaptations can be thought of as how an animal looks or what it does to stay alive and "make a living." Prey animals often have good hearing, and are quick and alert. These adaptations help prey escape predators. Most predators have sharp teeth and strong jaws, allowing them to capture prey. Predators and prey are both an important part of nature.

PREDATOR ADAPTATIONS



Forward facing eyes - With excellent vision and forward facing eyes, a hawk in flight can spot a mouse on the ground from a mile away.

Sharp teeth/Strong jaws - Mountain lions have strong jaws and can kill animals six times their size, with a quick bite to the neck.



Good sense of smell - A wolf's sense of smell is at least 1,000 times better than ours. They can smell prey from a mile away!

Work as a team - When wolves work together in a pack, they can bring down an elk which may weigh up to 1,000 pounds.

PREY ADAPTATIONS

Wrap around vision - With eyes on the side of their head, rabbits can see in front, to the side, and behind, all at the same time.

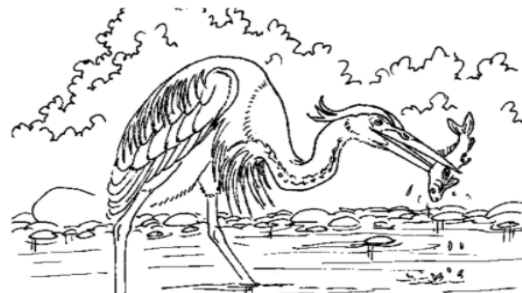


Good hearing - A mule deer's large ears move independently, allowing it to hear a predator long before it sees it.

Freeze - By staying perfectly still, cottontail rabbits avoid being seen by predators.



Safety in numbers - In a prairie dog town, one is the guard and warns the others if a predator is nearby.

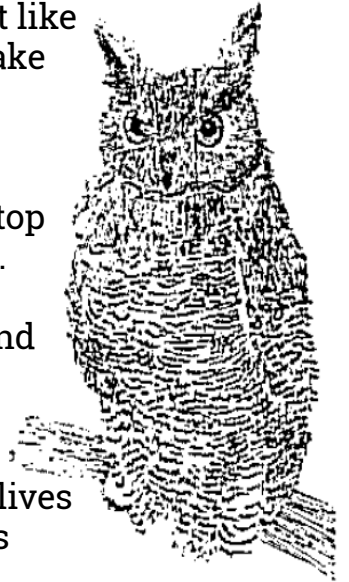


NAME THAT NICHE

Every animal has a job to do in the community where it lives. This is called its ecological niche (niche rhymes with itch). An animal's ecological niche can be defined as "what it does for a living." Animals have different jobs in the community, just like people do. A cook in a restaurant provides food for people, doctors take care of sick people, and carpenters build homes for people.

Like people, animals have different jobs, too. A great horned owl is nocturnal (active at night), it lives in trees, and it's a predator at the top of the food chain (almost nothing eats it). That's its ecological niche. How about an earthworm - what's its ecological niche? Earthworms live underground, they are prey (food) for birds and other animals, and they aerate (loosen up) soil.

Every animal plays an important role in the community. Whether it is a predator or prey, nocturnal or diurnal (active during the day), or lives in a nest or a burrow, each animal has an ecological niche that helps support the community.

**WHICH NICHE IS IT?**

For each of the animals below, try to think of what their ecological niche might be. Why is each one important in the community? Write your thoughts next to each animal.

- APACHE TROUT

- BIG BROWN BAT

- BEAVER

- COYOTE

- TURKEY VULTURE

How would you describe your niche? List some things you do in the community.



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TEACHING GUIDE

Overview

In this activity, students will read a short passage about ecological niches. They will learn about the different roles that each species plays in an ecosystem. As part of this, they will also learn about some adaptations that help predator and prey species survive. Then, they will try to explain the ecological niche of different animals, including themselves.

Suggested Procedures

1. Print the worksheet above. If possible, print it double sided.
2. Have the students read the article.
3. Ask students the following questions and discuss:
 - What are some adaptations common to predator species? How do these help these animals?
 - What are some adaptations common to prey species? How do these help these animals?
 - What is a niche? What does this tell us about the "value" of all species?
4. Have students complete the "Which Niche Is It?" section on the second page. They will try to explain the ecological niche of five different Arizona wildlife species. If necessary, you can allow the students to do some minor research to learn a little more about the animals.
5. Discuss the student answers as a class.
6. To recap, ask the following questions:
 - What might happen to an ecosystem or habitat if an animal is removed?
 - What might happen to an ecosystem or habitat if an animal is introduced?

Grade

6th

AZ Science Standards

- 6.L.2.U.1.3

Science and Engineering Practices

- Obtain, evaluate and communicate information

Crosscutting Concepts

- Systems and System Models