

It's Your Niche

Subject: Science

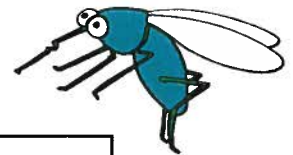
Objective: Students will be able to define habitat and niche and create business cards for particular animals.

Materials:

- 3" X 5" blank index cards or pieces of construction paper cut business card size
- writing and coloring materials
- animal books for researching

Procedure:

1. Review habitat with students. (food, water, shelter, and space in a suitable arrangement.) Tell students that habitat can be considered an animal's address. Explain to students that in this activity they will be not only be looking at animals' addresses, but animals' jobs, as well.
2. Talk about the student's neighborhood. Everyone has an address and most people have jobs. The job might be a role that person plays in the community. Animals have roles in the ecosystem, or community, that they live in. This role is called the animal's ecological niche. It includes such things as where and how the animal gathers its food; the animal's role in the food chain; what the animal gives and does for the community; the animal's habits, periods of activity, etc. It can also be described as what an animal does for a living.
3. Allow students time to choose and research a certain Idaho animal to find out its niche and choose one thing this animal does well.
4. Their assignment will be to create a business card for that animal advertising its job in the community. To help them, you may want to bring in a few "real" business cards to look at.
5. Here are a few samples of animal business cards:



Rick Raven
Environmental Cleanup
Unlicensed, Unbonded, Uninsured
Your trash is our treasure
Call 1-800-Wise-guy

Buzz Mosquito
Plasma Collector/blood sucker
123 Stick-It-To-You Lane
Everywhere, Idaho
We'll suck you drier than a vampire
Call 1-800-drink-blud

6. Business cards should include the following: name of animal, job title, company name, address, phone number, slogan and illustration or symbol for business (optional).
7. Hang business cards on your bulletin board and call it "Whose Niche?"

Winter Survival

Subject: Science

Objective: Students will be able to give four examples of behaviors animals use for winter survival.

Materials:

- 12" X 18" construction paper
- markers or colored pencils



Procedure:

1. Discuss with students the behaviors they take on when winter arrives. How do they handle the cold weather? In what activities do they participate? Does their behavior change from summer to winter? Share the poem, "Coping with Cold," (following page) with your students.
2. Discuss with the class the wildlife they see during the winter. Are there fewer animals to see? Does animal behavior change in any way? Why does the behavior change? How do winter animals make a living?
3. Introduce or review the different strategies animals use during the winter.
 - A. **Migrate:** Animals travel to another area where weather is warmer and food is more accessible.
 - B. **Adapt:** These animals make changes to behavior or to their bodies. For example, they may grow newer, thicker fur in the fall or change the coloring of their coats to blend in with their environment. Some animals gather food when it is available and store it for later. Other animals change their diet for the different seasons.
 - C. **Hibernate:** True hibernators are animals that go into a special deep sleep. Their body temperature drops, heartbeat and breathing slow down. They eat extra food in the fall and store it as body fat.
 - D. **Dormancy:** Cold-blooded animals like fish, frogs, snakes and turtles have no way to keep warm in the winter. This inactive period, or dormancy, is similar to hibernation.
4. Ask students to research more thoroughly winter survival techniques for different animals. Give each student a 12" X 18" piece of construction paper. Instruct them to fold the paper into fourths. They should then draw lines on the folds and label each box. Use the following labels: Migrate, Hibernate/Dormancy, Adapt and My Preference. For the Migrate, Hibernate/Dormancy, and Adapt boxes, students should give an explanation of the technique and give at least three examples of animals that use the particular technique. They should then illustrate one of the animals demonstrating that behavior.
5. For the fourth box, My Preference, students should tell which technique they would prefer if they were an animal surviving the winter.

Coping with Cold

By Shelley Cooke, Idaho Dept. of Fish and Game

When winter approaches and cold weather draws near
what happens to the animals this time of year?

Can they put on a jacket to keep themselves warm,
or stay snuggled in bed during a harsh winter storm?

Perhaps take a trip to the place of their choice,
to a beach in the tropics to relax and rejoice?

If people can do it, can animals too?
Let's take a quick look and see if they do.

Early in the fall as the days start getting short,
I hear quacking and honking, creating a ruckus of sorts.

I look to the sky, for what could it be?
A flock of geese flying south in the shape of a V.

I see a squirrel in the treetop, some nuts in his cheeks,
to store for the winter in the upcoming weeks.

He'll take them and hide them in some secret space,
and when he gets hungry, he'll search for that place.

The animals of the mountains, like the wolf, elk and goat,
all grow extra fur for a thick winter's coat.

Then, in the springtime, they'll shed that thick pelt,
about the same time the snow starts to melt.

I believe there is a rabbit who is known as a hare
that during the winter changes the color he wears.

Most of the year, he is dark, head to toe
but turns white during the winter, to blend in with the snow.

The frogs and the turtles that live in the lakes,
sleep buried in mud until spring, when they wake.

They breathe through their skin, which keeps them alive.
When the water warms up, they begin to revive.

I've heard that the bear will retreat to a den,
to sleep all winter through, no matter how long it's been.

He prepares in the fall by eating more than his share,
then emerges in springtime, looking no worse for wear.

Moles and chipmunks, and some kinds of mice,
will stay inside when it's cold and roam around when it's nice.

They will huddle together in a tight little ball,
and hide in the homes they built in the fall.

People and animals are alike in some ways.
We all have a plan to survive cold winter days.

Some sleep, some snuggle, some fly south on their wings,
but all that really matters is we survive until spring!

Who's Eating What?

Subject: Science & Art

Objective: Students will be able to create collages and complete a worksheet to identify animals as herbivores, carnivores or omnivores.

Materials:

- Wildlife magazines to cut up
- Scissors
- Construction paper
- *Who's Eating What* worksheet



Procedure:

1. Review food chains with students, and discuss classification of animals as herbivores, carnivores and omnivores.
2. Give students a 12" X 18" piece of construction paper. Have them divide it into three columns. Instruct them to label a column for each of the following: herbivore, carnivore and omnivore.
3. Provide students with magazines for cutting out pictures of wild animals. Have them put pictures in the appropriate columns.
4. Handout *Who's Eating What?* worksheet for classifying animals as herbivore, carnivore, or omnivore.
5. Answer key: 1. B, 2. A, 3. C

Species	Herbivore	Carnivore	Omnivore
Moose	X		
Black Bear			X*
Gray Wolf		X	
Porcupine	X		
Mule Deer	X		
Coyote			X*
Mountain Goat	X		
Striped Skunk			X
Raccoon			X*
Painted Turtle			X
Magpie			X
Cougar		X	
Longnose Leopard Lizard		X	
Gopher Snake		X	
Wolverine			X*
American Crow			X
Grasshopper	X		
Beaver	X		
Townsend Ground Squirrel	X		
River Otter		X	

*Note to teacher: Animals with an asterisk may be classified in science books as carnivores, but technically they will eat both plants and animals.

Who's Eating What?

Match the following term with the proper definition. Write the correct letter in the blank.

A. Herbivore

B. Omnivore

C. Carnivore

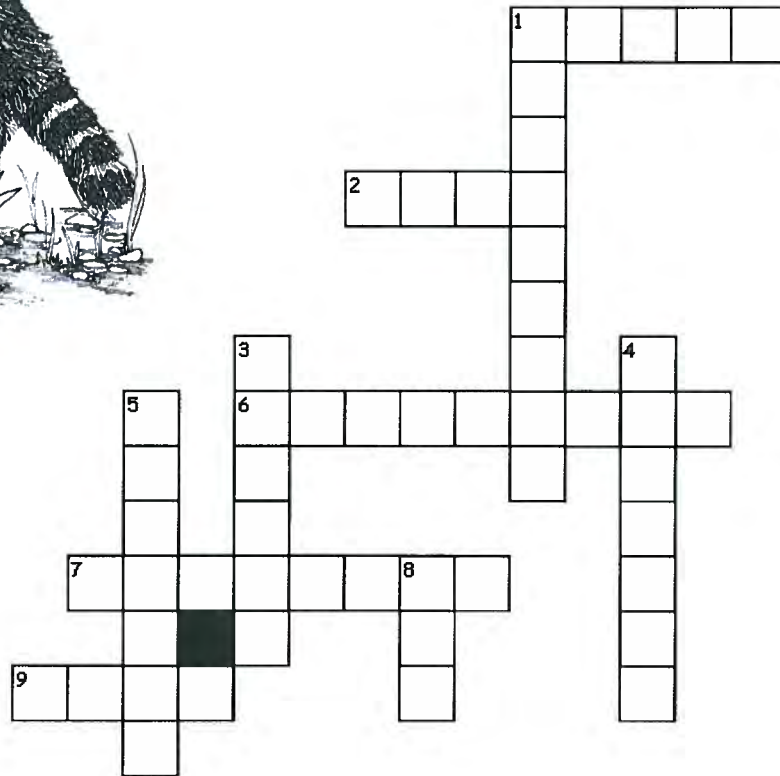
- _____ 1. An animal that eats both plants and animals.
 _____ 2. An animal that eats only plants.
 _____ 3. An animal that only eats other animals.



Place an X in the appropriate column.

Species	Herbivore	Carnivore	Omnivore
Moose			
Black Bear			
Gray Wolf			
Porcupine			
Mule Deer			
Coyote			
Mountain Goat			
Striped Skunk			
Raccoon			
Painted Turtle			
Magpie			
Cougar			
Longnose Leopard Lizard			
Gopher Snake			
Wolverine			
American Crow			
Grasshopper			
Beaver			
Townsend Ground Squirrel			
River Otter			

City Critter Criss-Cross



Across

1. These offer ducks and geese a nice place to raise their young.
2. Wildlife may come into town when _____ is hard to find in the forest.
6. At night, towns come alive with _____ animals.
7. Sometimes homes are built on _____ habitat.
9. Tracks, _____ and chew marks are signs that wildlife has visited your backyard.

Down

1. In the winter, _____ will sometimes follow deer into a town.
3. Feeding pets _____ will help stop problems that may happen with raccoons and skunks.
4. Feeding _____ in town may cause problems.
5. Wildlife may be found anywhere there is good _____.
8. This wild dog often finds a place to live near humans.

Words

Food
 Fox
 Habitat
 Inside
 Mammals
 Nocturnal
 Ponds
 Predators
 Scat
 Wildlife