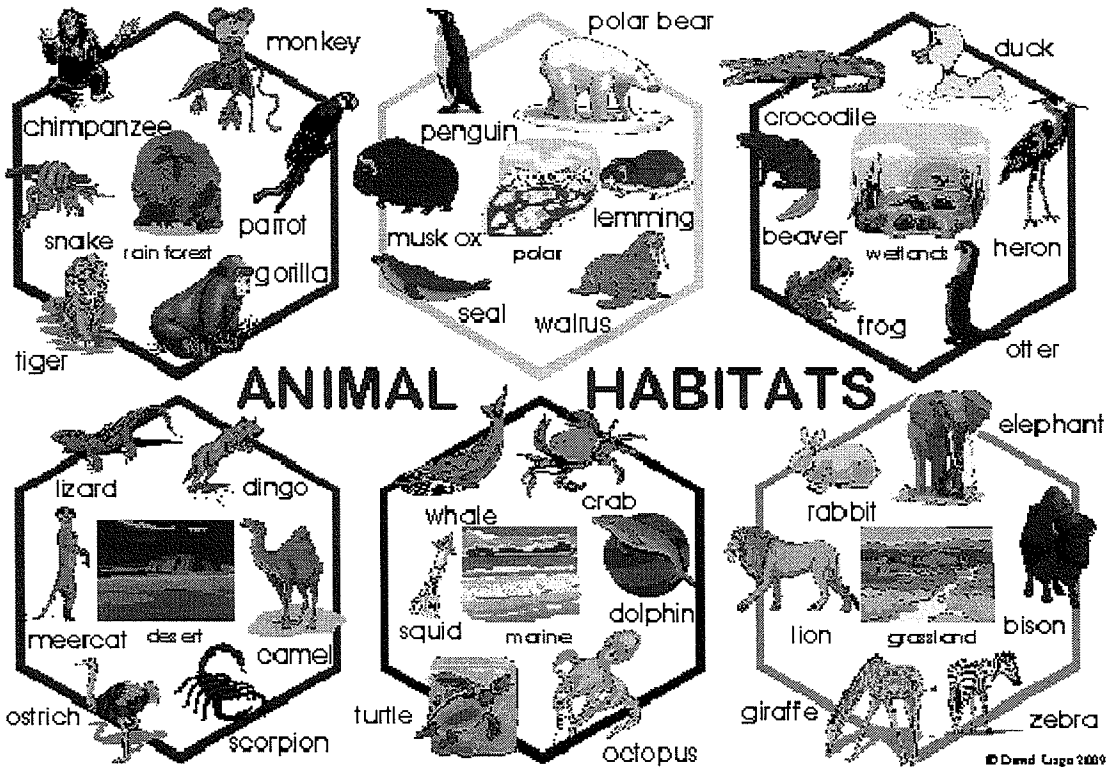


LEVEL 2

SCIENCE AND TECHNOLOGY

ANIMAL ADAPTATIONS

HABITAT UNIT



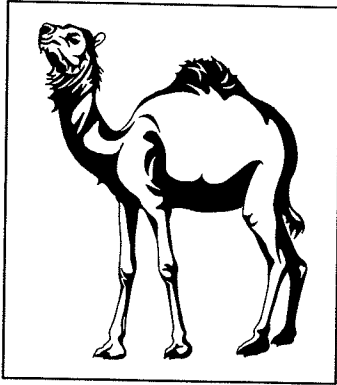
Teacher: Mr. D. Strina

Student Name: _____

McCaig Elementary School

UNIT 1

ANIMAL ADAPTATIONS What Animals Need

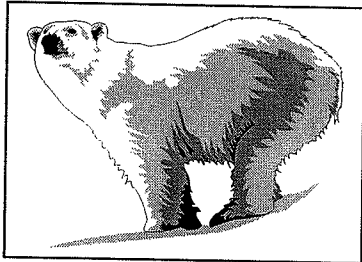


Travel to a hot, dry desert. Visit a land frozen under ice. Go beneath the sea. In all these places you find animals. Animals live in almost every part of the world.

There are over one million kinds of animals. But all animals need many of the same things. They need food. Food gives them energy to live and grow. Animals need water. Some animals drink water. Others get water from the food they eat.

Many animals need shelter. A shelter is a place that protects an animal from the weather. It may be a place where an animal goes to escape an enemy. Some shelters keep young animals safe.

Animals get what they need from their environment. An **environment** is the place where an animal lives. The environment of a camel is the desert. A polar bear can be found in the cold Arctic.



Animals have special body parts that help them live in their environment. These body parts are called **adaptations**. Some adaptations help animals get food. Others help animals live in cold or hot places. Some protect an animal from its enemies.

Claws and teeth are two adaptations of a polar bear. These parts help a bear catch the seals it eats for food. A thick fur coat helps keep the bear warm. Could a polar bear live in a desert?

Animals get food in different ways. They have many ways to protect themselves. As you read, you will learn how different animals live in their environments.

A. Answer True or False.

1. Some animals do not need food.
2. Animals get what they need from their environment.
3. All animals live in the same environment.
4. Food gives animals energy to grow.
5. Some animals get water from the foods they eat.
6. A shelter may protect an animal from an enemy.

B. Write environment or adaptation next to each word or phrase.

1. desert
2. claws
3. sharp teeth
4. ocean
5. forest
6. thick coat of fur

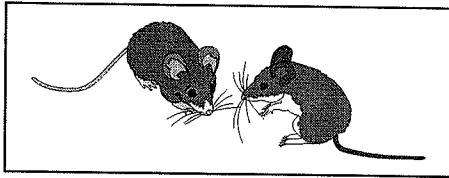
Answer the questions.

1. Where do animals live?
2. What are two things that all animals need to live?
3. Why does an animal need shelter?
4. What are two adaptations of a polar bear?

How Some Animals Get Food

Did you know that plants are food factories? Plants use materials from the soil and the energy of sunlight to make their own food. Animals cannot make their food. They must get food from their environment.

Animals eat many kinds of food. Some animals eat only plants. These animals are herbivores. Horses, deer, mice, rabbits' and elephants are herbivores.



Herbivores have strong teeth to chew tough plant parts. Mice have teeth that never stop growing. So their teeth never wear out from chewing their food. These teeth are one of the adaptations of mice.

Some animals eat other animals. They are called carnivores. Tigers, foxes, and eagles are carnivores. Carnivores have adaptations to help them catch the animals they use as food. Many carnivores have sharp teeth and claws.

Most fish are carnivores. They eat worms, small water animals, and other fish.

A few kinds of carnivores eat only dead animals. These animals are called scavengers. A bird called a vulture is a scavenger. A vulture has good eyesight. It can see a dead animal from far away.



Some animals eat both plants and other animals. These animals are omnivores. Bears are omnivores. They use the claws on their big front paws to snatch a fish from a stream. They also eat berries, nuts, and fruits. Skunks and raccoons are omnivores, too. So are most people.

A. Find these words in the text. Then write a definition for each.

1. omnivore
2. herbivore
3. carnivore
4. scavenger

B. Answer True or False.

1. A mouse is a carnivore.
2. Animals can make their own food.
3. Herbivores eat meat.
4. Special body parts help animals find and eat food.

C. Write carnivore, herbivore, or omnivore to answer each question.

1. What kind of animal eats other animals?
2. What kind of animal eats plants?
3. What kind of animal eats both plants and animals?
4. What kind of animal is a bear?

D. Answer the questions.

1. How are animals different from plants?
2. What adaptation does a vulture have to find food?

How Birds Get Food

Animals must get food from their environment. They have special body parts, or adaptations, to help them get their food.

Birds have some interesting adaptations. Their **beaks**, and sometimes their feet, help them get food. The shape and size of a beak can help tell you what the bird uses for food.

A sparrow has a beak that is short and strong. It feeds on the seeds of plants. It uses its beak to break open the seeds. Sparrows are found in almost every environment in the United States.

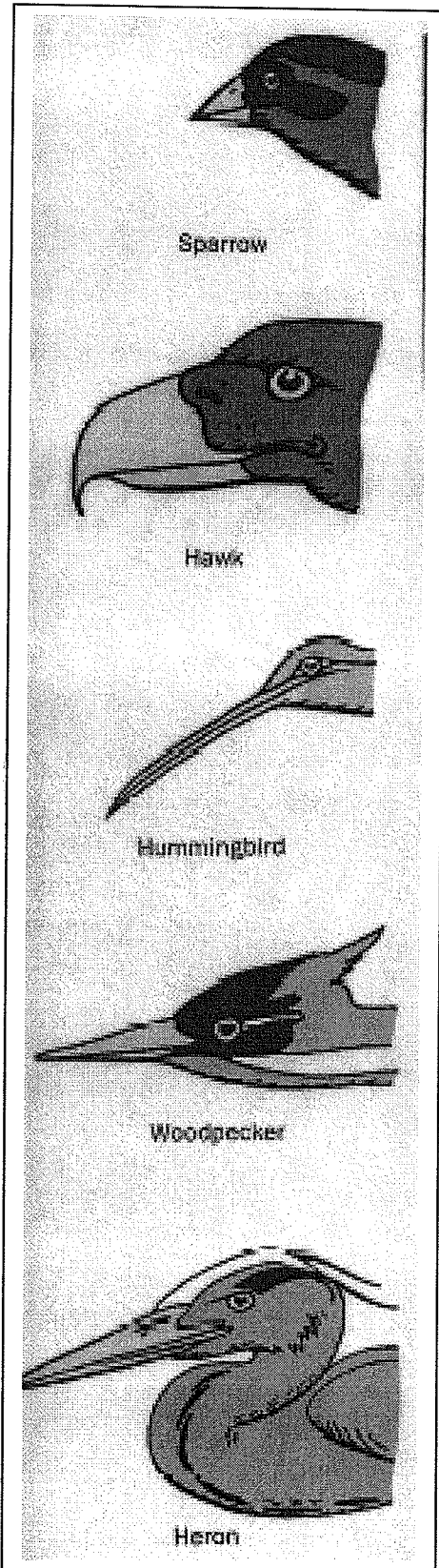
A hawk uses both its claws and its beak to get food. It can catch a mouse or a snake in its claws. Then it uses its sharp, curved beak to cut and tear the meat.

Hummingbirds feed on **nectar**, a sweet liquid inside a flower. The hummingbird's beak is long and thin. It can reach the inside of the flower to get to the nectar.

Hummingbirds have another adaptation. While they are feeding, they move their tiny wings in a circle. This helps them hang in the air, like a helicopter.

Have you ever heard the sound that a woodpecker makes? With its strong beak, a woodpecker makes holes in the bark of trees. Then it eats the insects and the other small animals that it pulls out of the holes.

Birds such as herons have long legs for wading in water. They use their long, pointed beaks to catch fish and frogs. Could a heron live in a desert?



A. Draw lines between the bird and its special adaptations.

- | | |
|----------------|---------------------------------------|
| 1. hawk | short, strong beak for opening seeds |
| 2. hummingbird | long beak for catching fish and frogs |
| 3. heron | long, thin beak and special wings |
| 4. woodpecker | sharp, curved beak and claws |
| 5. sparrow | strong beak for making holes in trees |

B. Complete each of the following sentences. Use the words below.

adaptations beaks environment foods

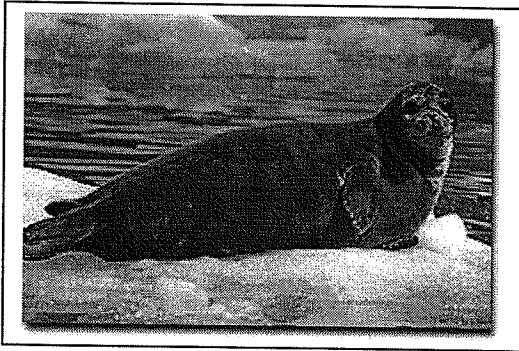
1. Animals get their food from their _____.
2. The special body parts are called _____.
3. Animals have different adaptations because they eat different _____.
4. Most birds use their _____ to help them get food.

C. Answer the questions.

1. What does a hawk use to get food?
2. How is a sparrow's beak different from a heron's beak?
3. What kind of food does a woodpecker eat?
4. Why do birds have beaks of different shapes and sizes?

Safe In the Environment

You have read about some of the adaptations that animals have for getting food. Now read about other adaptations that animals have to help them stay alive in their environment.



Some seals live in the Arctic. They have thick layers of fat to help keep them warm. Remember that polar bears live in the Arctic, too. They have layers of fat and a thick fur coat to help keep them warm. Polar bears are well protected by their fat and fur. They can even swim in icy cold Arctic waters.

The desert is very hot and has little or no water. Many desert animals, such as lizards and gerbils, spend the hottest part of the day in holes they have dug. They come out at night when it is cooler. They can also go for a long time without drinking water. Some desert animals get the water they need from the plants or animals they eat.

Many birds that nest in the north do not stay there through the cold winter. These birds migrate, or travel south to warmer areas where they can find food. In the spring they return north. This two-way trip is called migration.

Woodchucks and bears can't find food during the winter. So they eat all summer and fall until they get very fat. Then they sleep through the winter in holes or caves. This sleep is called hibernation. Some desert animals hibernate through very hot or very dry times.

A. Find these words in the text. Then write a definition for each.

1. adaptation
2. migration
3. hibernation

B. Complete each sentence.

1. A polar bear's fat and fur help it to _____.
2. A desert animal escapes the heat by spending the day _____.
3. When the weather gets cold, many birds _____.
4. The desert is hot during the day and cooler at _____.

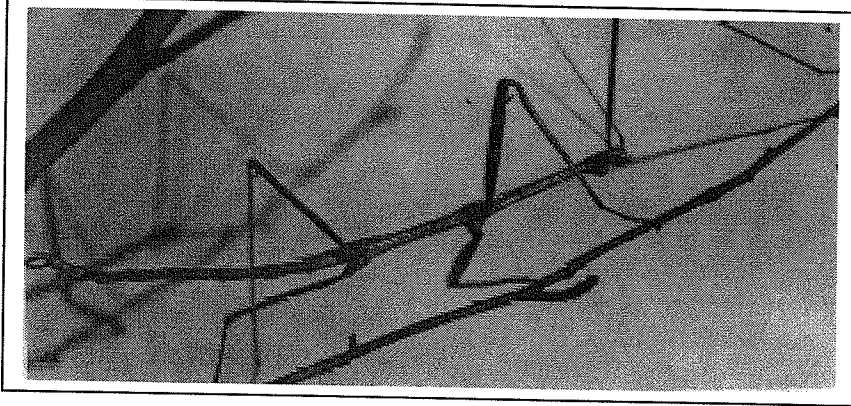
C. Answer True or False.

1. Many birds hibernate.
2. Lizards have a layer of fat to keep them warm.
3. Birds migrate to the south in the summer.
4. An adaptation helps an animal live in its environment.
5. Seals hibernate during the winter.

D. Answer the questions.

1. Why do woodchucks hibernate?
2. Why do some birds migrate south in the winter?
3. What adaptation does a seal have for living in the Arctic?

Safe From Enemies



Can you see the insect in this picture?

Many animals are in danger from other animals. They must protect themselves from being caught and eaten.

Some animals are hard for an enemy to see. Their colours help them blend in with their environment. This protective colouring is called **camouflage**. Some lizards and snakes that live in trees are green. They blend in with the colour of the leaves. Some insects that live on tree branches are brown. They match the colour of tree bark.

Deer have long legs and can run fast. They use speed to get away from an enemy.

Some animals use sprays to protect themselves. The spray from a skunk has a very bad smell. Most animals run away from it! A horned lizard can spray blood from its eyes into an enemy's eyes. While its enemy has trouble seeing, the lizard can escape.

Some animals have weapons. A porcupine has sharp quills on its body. Anything that attacks the porcupine gets stuck with the quills.

Poison is another weapon that animals can use. Bees and wasps have stings that are poisonous. The bite of a rattlesnake is poisonous, too. Some toads have a poison on their skin. Any animal that tries to eat the toad will get sick.

A. Choose a word from below that matches the way an animal protects itself.

camouflage poison quills spray

1. horned lizard
2. porcupine
3. bees
4. toad
5. skunk
6. green tree snake

B. Underline the missing word.

1. Protective coloring is called (poison, camouflage)
2. A skunk uses a (poison, spray) to protect itself.
3. A green tree snake is protected by (camouflage, poison).
4. A porcupine protects itself with (quills, poison).
5. Camouflage means that an animal's color helps it blend in with its (enemies, environment).

C. Answer the questions.

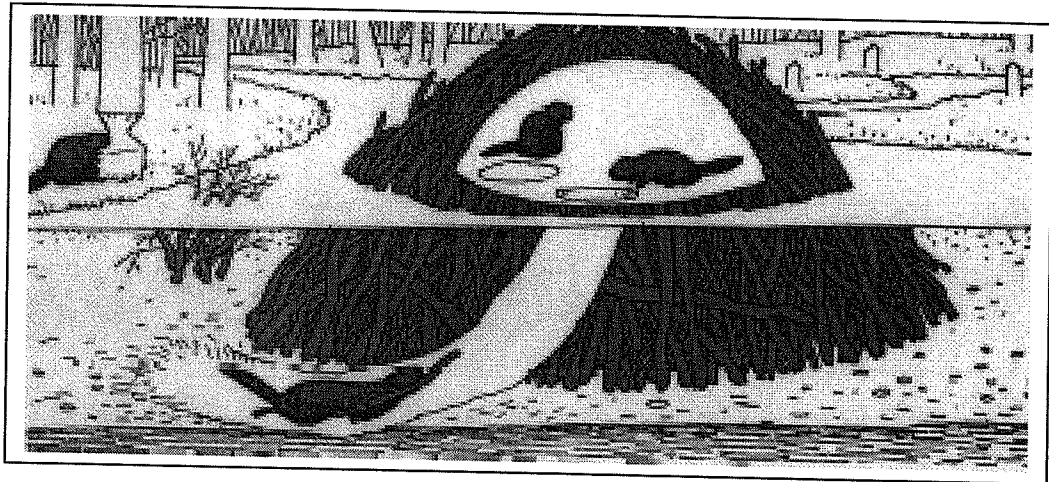
1. What are two ways that animals can protect themselves?
2. What happens to an animal that attacks a porcupine?
3. How does camouflage protect an animal from enemies?

Animal Homes

Animals need shelter from bad weather and from other animals. Some animals use trees, caves, or holes in the ground. But others build their homes.

Many animals dig holes in the ground. In the hole, an animal can stay warm in winter and cool in summer. A hole also keeps larger animals out. Rabbits, mice, and chipmunks dig holes for homes. Foxes also dig holes. A fox hole is called a **den**. The den protects the young foxes from other animals.

Prairie dogs are small animals in the squirrel family. These animals dig a long hole in the ground called a burrow. They sleep and store food in the **burrow**. During the day, prairie dogs leave the burrow to look for food. But if they see an enemy, they run back to the burrow to hide.



A beaver lodge

The beaver builds a home in the water. It is called a **lodge**. The beaver uses its sharp front teeth to cut down trees. It uses the tree bark for food. It uses the trunk of the tree to build the lodge. Inside its home, a family of beavers is safe from animals that might use the beavers as food.

Deer do not have homes. They move around in groups for safety. Monkeys also travel in groups for safety. At night, monkeys sleep in trees. They build nests of leaves to sleep in each night.

A. Choose a word or phrase to match each animal with its home.

burrow den does not have a home
sleeps in a tree lodge

1. prairie dog
2. deer
3. monkey
4. fox
5. beaver

B. Answer True or False.

1. All animals live in the same kind of shelter.
2. A den protects young foxes.
3. Many animals dig holes in the ground to stay warm in winter and cool in summer.
4. Some monkeys make nests in trees.
5. A beaver builds a home with rocks.

C. Answer the questions.

1. Where do beavers build their lodges?
2. How do deer stay safe?
3. How does a den protect young foxes?
4. Why do animals need shelter?

Young Animals

All animals **reproduce**. They make more living things like themselves. Some animals, like birds and insects, lay eggs. Other animals, like cats and horses, reproduce and then give birth to live young.

Most fish, insects, and snakes can find their own food soon after they are born. Other young animals are fed and protected by their parents. Young birds grow up in nests that are built by the parent birds. The parents will feed the young birds until they are strong enough to fly.

Some animals, like wolves, live in large groups called **packs**. All the adults in the pack help feed and protect the young wolves learn the skills they will need to survive by watching the adults and playing with each other.

A. Answer True or False.

1. All young animals need their parents.
2. Young wolves grow up on their own.
3. Young birds are fed by their parents.

B. Answer the questions.

1. What are they are three kinds of animals that can find their own food soon after born?
2. When do parent birds stop feeding their young?

Just for Fun

Use the clues to complete the puzzle. Choose from the words below.

camouflage **carnivore** **environment** **herbivore**
hibernation **migration** **omnivore** **reproduce**

Across

4. traveling to a warmer area to find food
5. an animal that eats both plants and animals
6. an animal that eats only plants
8. to make more living things

Down

1. an animal that eats only other animals
2. sleeping through the winter
3. the place where an animal lives
7. color that matches the background

