

Name _____

Date _____

Migrate, Adapt, or Hibernate

When winter comes, humans wear warmer clothing and heavy coats. We also get most of our food from grocery stores. Our grocery stores don't close when winter comes. Winter is a different story for animals. Animals find their food in nature. They do not have clothes that they put on, so what do they do when winter comes?

There are three basic ways that animals respond to winter. They migrate, adapt, or hibernate. What type of animal something is tells us which of the three methods it is likely to use to survive winter.

Some animals migrate for winter. This means that they go to other places where the weather is warmer or where they can find food. Many birds migrate to warmer climates in the fall, so that they can survive winter. Some birds, like geese, travel in large flocks. You may see geese fly in a noisy V-shaped group when they are migrating to a warmer place. Not all birds fly in groups. Some migrate alone.

Scientists are still studying how birds know when it is time to migrate. Many see migration as part of a cycle of change that birds go through. This cycle is controlled by changes in the amount of daylight and in the weather.

Birds can fly very long distances. For instance, there are some birds that live near the North Pole and fly south all the way to Antarctica for the winter. They return to the North Pole each spring. Most birds migrate shorter distances though.

There are other animals that also migrate. For example, some bats, elk, and whales travel each winter in order to ensure they can find food. Many fish swim south or move into deeper, warmer water. Some insects also migrate. For example, Monarch butterflies spend summer in Canada and the Northern United States, and they migrate as far south as Mexico for the winter.

Some animals stay active in winter and adapt to the changing weather. To keep warm, some animals grow new, thicker fur in the fall. Animals like mice and squirrels gather extra food in the fall and store it so they can eat it in winter. Other animals change their eating habits in winter. For example, a red fox eats fruits and insects in the spring, summer, and fall. In winter, a red fox cannot find these foods, so it eats small rodents instead. These animals adapt to the change in the weather by changing their habits so that they can survive the cold winter months.

Other animals, like bears, hibernate for the winter. Hibernation is a special, deep sleep. An animal's body temperature drops. In addition, its heartbeat and breathing slow down. This causes the animal to use very little energy.

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Migrate, Adapt, or Hibernate (Cont'd)

One of the biggest problems for animals in winter is finding enough food. If an animal's main food source is hard to find in the winter, like green plants, it may hibernate. Hibernation is a special, deep sleep that allows an animal to conserve energy and survive the winter with little or no food.

Most animals that hibernate prepare for the winter in some way. Some animals store food that they can eat when they are awake for short periods. Many of the animals that hibernate eat extra food in the fall. This food is then stored as body fat that can be used later for energy. Animals that hibernate have two kinds of fat. One is a regular white fat. The other kind is a special brown fat. The brown fat forms small patches near an animal's brain, heart, and lungs. This special fat sends bursts of energy to warm these organs when it is time to wake up.

Some animals go into such a deep sleep that they are difficult to wake, and they may even appear to be dead. For example, a hibernating woodchuck's heart rate slows to only four beats per minute. Its temperature can get as low as 38F. Normally, a woodchuck's temperature is 98F, and its heart beats roughly 80 times per minute. As you can see, hibernation can drastically change the appearance of an animal. Bears, skunks, and chipmunks are just a few of the animals that hibernate.

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Migrate, Adapt, or Hibernate Questions

Fill In:

1. Animals find their food in _____.
2. One of the biggest problems for animals in winter is finding enough _____.
3. _____ means that animals go to other places where the weather is warmer or where they can find food.
4. Some animals stay active in winter and _____ to the changing weather.
5. Animals that hibernate have _____ kinds of fat.

True or False:

- ___ 6. Many birds migrate to warmer climates in the fall, so that they can survive winter.
- ___ 7. Most animals that hibernate do not have to prepare for the winter.
- ___ 8. A hibernating woodchuck's heart rate slows to only four beats per minute.
- ___ 9. Bears, skunks, and chipmunks are just a few of the animals that migrate.
- ___ 10. Monarch butterflies spend summer in Canada and the Northern United States, and they migrate as far south as Mexico for the winter.
- ___ 11. Brown fat forms small patches near a hibernating animal's brain, heart, and lungs. This special fat sends bursts of energy to warm these organs when it is time to wake up.
- ___ 12. There are five basic ways that animals respond to winter.
- ___ 13. Some birds, like geese, travel in large flocks.
- ___ 14. Hibernation is a special, deep sleep that allows an animal to conserve energy and survive the winter with little or no food.
- ___ 15. Most animals do not change their eating habits during winter.

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Migrate, Adapt, or Hibernate Answers

Fill In:

1. Animals find their food in nature.
2. One of the biggest problems for animals in winter is finding enough food.
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4. Some animals stay active in winter and adapt to the changing weather.
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- T 6. Many birds migrate to warmer climates in the fall, so that they can survive winter.
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