

For Creative Minds

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Animals use their ears to . . .



. . . find a mate.

Some animals, like this moose, use loud mating calls to find companions.

. . . find prey.

By listening carefully, a predator can track the location of their prey.

. . . hear predators.

Keen ears tell prey animals when danger approaches.

. . . communicate with other animals.

Some animals use their ears to show other animals their feelings.

Mix and Match



chipmunk



green frog

Match the animals to their ears. What do you think each animal uses its ears for?



opossum



black bear

1



3



2



4



Answers: 1) opossum. 2) black bear. 3) green frog. 4) chipmunk.

How Do Ears Hear?

Sound starts with movement. A molecule vibrates—it moves quickly back and forth. It bumps the molecule next to it and sets it vibrating. Molecules of air around them move as each one is bumped by another molecule. The vibration spreads out in waves. They move out away from the starting point like ripples when you drop a pebble in water.

There are tiny hairs inside a person's ear. They are too small to see without a microscope. These hairs vibrate when the sound touches them. The brain understands that vibration as sound.

Ears don't just hear sound, they can also tell where the sound is coming from.

Humans have one ear on each side of their head. When a sound wave travels, it touches the ears at different times. This difference is so small you probably don't think you can notice.

But the brain notices that difference! It uses that time difference to tell where the sound came from. If the sound touched the left ear before it touched the right ear, then the person knows the sound came from the left.



This boy heard a sound and turned toward it. Do you think the sound came from his right or his left?

Did you know?

Millions of people in the United States are **deaf** or **hard of hearing**. They cannot hear sound, or can only hear some sound.

Many people lose their hearing as they get older.

Can you hear? Do you know anybody who cannot hear, or who cannot hear well? Do you know any older people who cannot hear as well as they used to?

Ear Questions

Why do some animals have very small ears?



Moles, voles and shrews have small ears compared to the size of their bodies. These animals live underground and have to travel quickly and easily through tiny tunnels. If you lived in a small tunnel under the ground and had large flaps on your ears, what would happen to them as you ran through the tunnel?

hairy-tailed mole

How do owls hear so well?



Many owls have feathers that form circles around their eyes (facial discs). The feathers in the disc direct sounds to the birds' ears. Some owls have one ear that is higher on their head than the other ear. This helps them tell what direction a sound is coming from.

great grey owl

Can ears do anything but hear?



Yes. Some animals, such as rabbits and hares, use their ears to cool their bodies. Heat escapes from their ears. Ears help animals, including humans, keep their balance. Many animals use their ears to communicate their mood.

red fox