Year 4, Week 5, Science, Tuesday

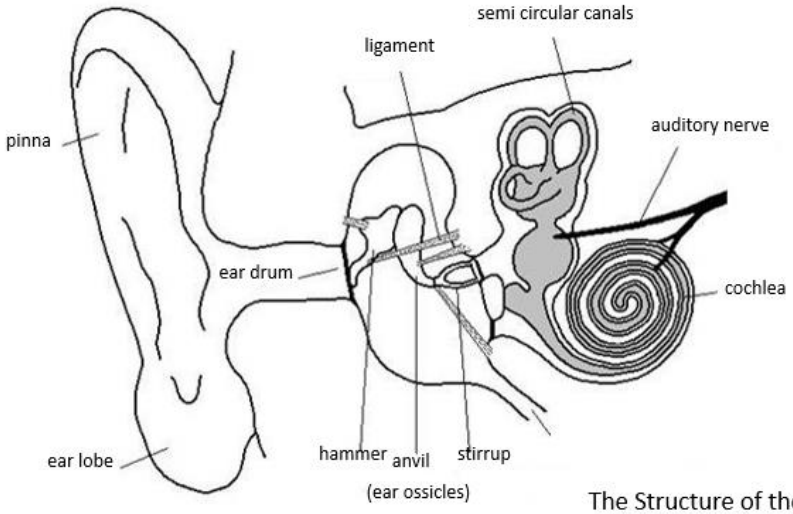
Sound

How do we hear sounds?

Vibrations in air (sound wave) caused by vibrations of objects, travel into our ears.

When the vibrations in the air enter the ear, they cause the eardrum to vibrate, which in turns passes the vibrations to the small bones inside the ear. The vibrations then cause the fluid inside the cochlear to move the small hairs inside, which send messages to the brain which are interpreted as sounds.

Look at the image below. The information above to track the way the sound moves through the ear.




The Structure of the Ear

Look at the pictures of animals.

Why do you think animals prick up their ears?

Do animals move their ears in any other way?

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Task One

Complete the sentence into your Home Learning book.

I think animals prick up their ears because …

Look at the pictures of animals.

What do you notice about their ears?

Why do you think their ears are this shape?

Can you suggest any other uses of ears?

Task Two

Complete the sentence into your Home Learning book.

I have noticed that the animals' ears are …

I think this is so they …

You might have noticed (if you have a dog) that dogs can hear their owners arriving home before they've even got to the door, or can tell the difference between their owner's footsteps and those of a stranger.

Many animals move their ears to collect sounds and some have large ears to help collect the sounds like an ear trumpet

Humans have to move our whole head, unlike many other animals. The fact that we have two ears helps us to decide which direction the sound is coming from, because the sound wave reaches one ear before the other. Why is it important for many animals to hear sounds clearly and to know where the sound is coming from? *Escape from danger/predator or hear the movement of prey.*

Who has seen and heard a thunder storm before?

Thunder is the sound caused by lightning. Depending on the distance and nature of the lightning, thunder can range from a sharp, loud crack to a long, low rumble.

Watch - https://www.youtube.com/watch?v=3TXJ2sk02JA

Why do we hear the lightning after we have seen it?

Light travels much faster than sound. So the sooner we hear the thunder after seeing the lightning, the closer the storm is to us. If the lightning is closer to us, the quicker we hear it.

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Task Three

Do you have friends or relatives who can't hear properly? Hearing aids can be used if you can't hear properly. Deaf people can sometimes lip-read also, so we have to face them when we are talking to them and pronounce our words carefully but not in an exaggerated way.

Use this link to learn the alphabet in sign language.
https://www.youtube.com/watch?time_continue=90&v=pWKkrllhOCc&feature=emb_logo

Can you learn how to sign your name?