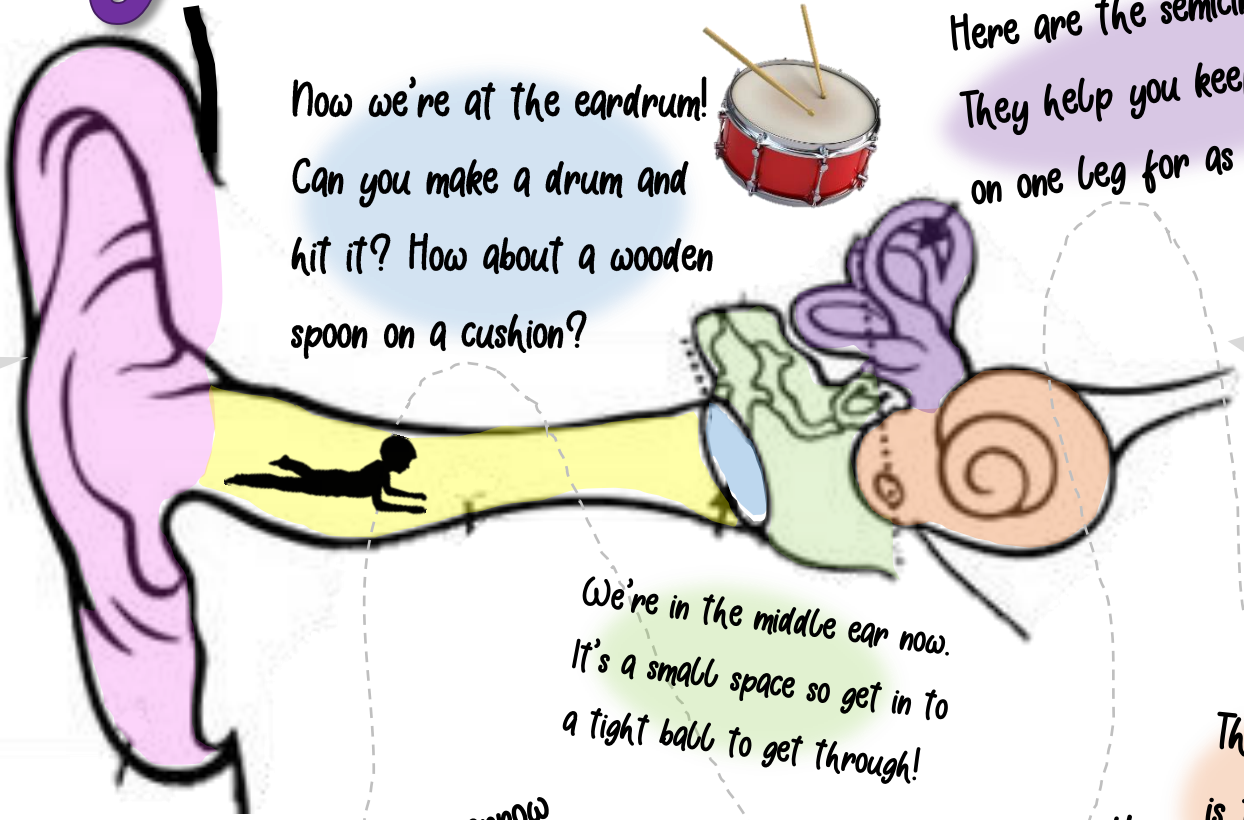
Journey through the ear!

YOU'RE A SOUND!
MAKE THE JOURNEY
THROUGH THE EAR!

Start in a big open space! Reach out with your arms! This is the Outer Ear. Can you see this on the side of your head in a mirror?

Next is the ear canal! It's a narrow tube. Can you find a tight gap to squeeze through like it's the ear canal?

Now we're at the eardrum! Can you make a drum and hit it? How about a wooden spoon on a cushion?



We're in the middle ear now. It's a small space so get in to a tight ball to get through!

The inner ear is filled with fluid. Hold your breath while we swim through!

Here are the semicircular canals! They help you keep balance! Stand on one leg for as long as you can!

The last stop in the ear is the Cochlea - a spiral shaped bone. To get through here you'll need to spin on the spot!!

YOU MADE IT!
FROM HERE
NERVES TAKE
INFORMATION TO
THE BRAIN

Outer Ear

Part of the ear you can see. Shaped like a funnel to collect sound waves and send them to the inner ear. Also called the **pinna**.

Bonus activity: make an outer ear from play-doh or blu-tac and name all the parts

Ear Canal

The ear canal is the tube that runs from the outer ear to the inner ear. Lined with cells that produce ear wax.

Ear wax protects the ear by trapping dirt and fighting infections

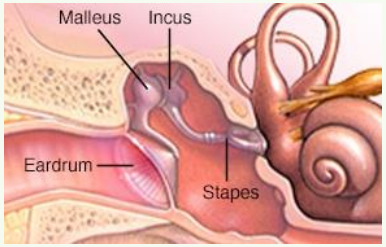
Bonus activity: RESEARCH: how long is the average adult's ear canal?

Eardrum

The **eardrum** is a thin membrane that separates your ear canal from your middle ear. The **eardrum**, also called the tympanic membrane, is involved in hearing. Sound waves cause your **eardrum** to vibrate.

Bonus activity: stretch a balloon over the end of a toilet roll tube. Can you make it vibrate by holding it up to a loud speaker?

Middle Ear



The middle ear is contains 3 bones that link the eardrum to the cochlea. They move in turn when they feel vibrations of the eardrum.

Bonus activity: can you find a video on YouTube explaining how the middle ear works?

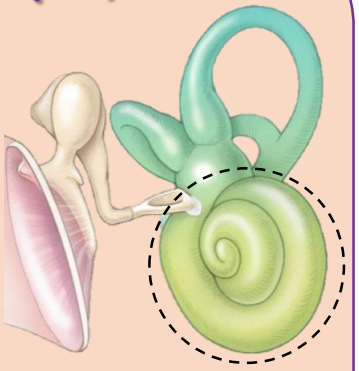
Semicircular Canals

The semicircular canals are involved in balance. The canals sense rotational movements of the head.

Bonus activity: stretch out a piece of string on the floor. Walk along the line then try again while listening to music and then after spinning on the spot. Is it easier or harder? Why?

Cochlea

When the bones of the middle ear move, fluid inside the cochlea moves. Hearing receptors turn the movement into signals and send these signals to the brain.



Bonus activity: RESEARCH: hair cells in the cochlea convert vibrations to signals. Can you find pictures of these cells? Describe what they look like.