

Name: \_\_\_\_\_

### Let's Make Some Noise!

Our ears collect sounds, process them, and send these as signals to the brain. The construction of our ears allow all of this to take place.

The **outer ear**, or pinna (also called auricle), collects the sounds. The ear canal, also in the outer ear, produces ear wax, which contains chemicals that fight off infections that might hurt the ear canal, and collects dirt to keep the canal clean.

The **middle ear's** main job is to take the sound waves and turn them into vibrations, which are then delivered to the inner ear. The **eardrum**, located between the outer and middle ears, is a thin piece of skin stretched tight like a drum. When sound waves reach the eardrum, it vibrates, moving the tiny ossicles (the tiniest, most delicate bones in our body, starting with the hammer, then the anvil, then the stirrup), all moving the sound along towards the inner ear.

The **inner ear** accepts vibrations as they enter the cochlea, a small, curved tube which is filled with liquid. This liquid moves as a wave when sound vibrations enter it. Also inside the cochlea are small hairs that move as vibrations travel through, and send nerve signals that the brain understands as sound.

**Directions:** Using plastic drinking cups and several different small items, work with a partner to decipher what the items are by the sounds being made. Think about highs and lows and speed of the sound. Record your guesses below and what the items actually were.

round	my guess	sound I heard	actual item
1			
2			
3			
4			
5			