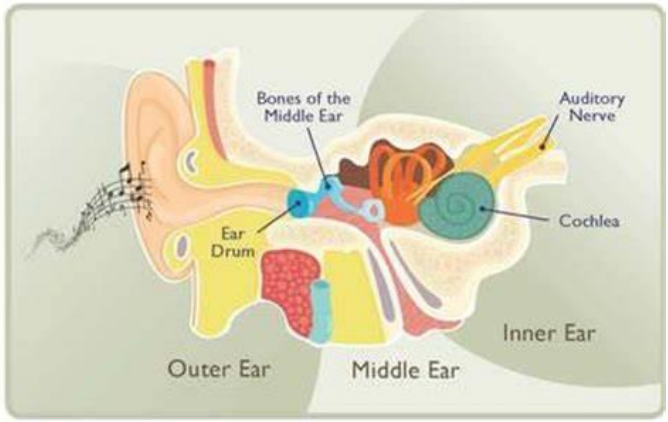
# Science – Sound – Year 4

| Vocabulary Top Ten: | |
|---|---|
| amplitude | A measure of the strength of a sound wave. |
| cochlea | Part of the ear that changes sounds into nerve messages and sends them to your brain. |
| deaf | Someone or something that cannot hear |
| eardrum | A thin flap of skin that is stretched tight like a drum and vibrates when sound hits it. |
| fluid | A substance that flows easily e.g. inside the cochlea to move the small hairs. |
| pitch | How high or low a sound is. |
| sound waves | Invisible waves that travel through air, water and solid objects as vibrations. |
| soundproof | When a material is used to absorb loud sounds. |
| transmit | To pass from one place or person to another. |
| vibrations | Invisible waves that move quickly. |

## Diagram of how sound travels




Sound is made when an object vibrates. These vibrations pass through the outer ear to the ear drum which passes to the middle ear bones. The cochlea changes vibrations to electrical signals and then sends nerve messages to the brain.

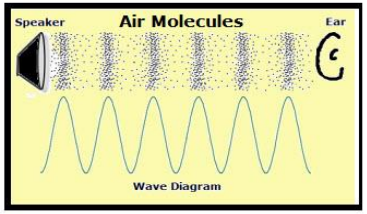
## Evelyn Glennie (1965 – present day)



## Key Facts:

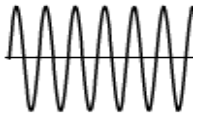
- Sound travels in waves and can travel through solid, liquids and gases.
- The closer you are to the source of the sound, the louder the sound will be and the further away you are from the source of the sound the quieter the sound will be.
- The pitch of a sound depends on the features of objects. For example, a tight drum skin gives a higher pitched sound than a loose drum skin.
- Decibels measure how loud a sound is and the frequency measures the number of times per second that the sound wave cycles.
- Soft, spongy or pliable materials are best used for soundproofing.
- The middle ear bones in your ear, are the smallest bones in the human body. They include the hammer, anvil and stirrup.
- The bigger the vibration, the louder the sound and the smaller the vibration, the quieter the sound.
- Evelyn Glennie has performed at many musical venues including the 2012 Opening Ceremony of the Olympic games in London and at the Last Night of the Proms at the Royal Albert Hall.
- Evelyn Glennie is a deaf musician who often plays barefoot to allow her to feel the vibrations.








Lower Pitch



Higher Pitch

