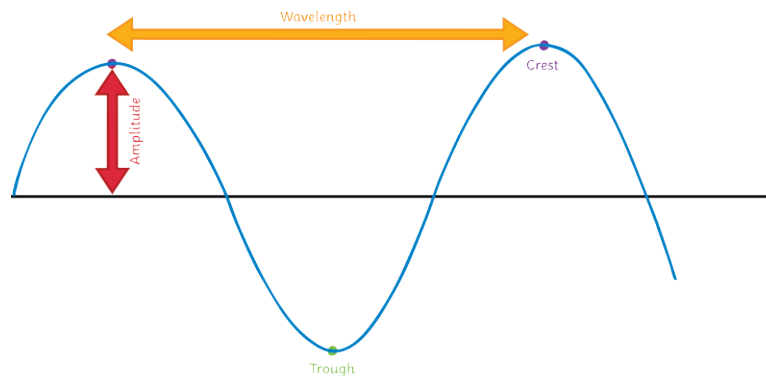


Sound

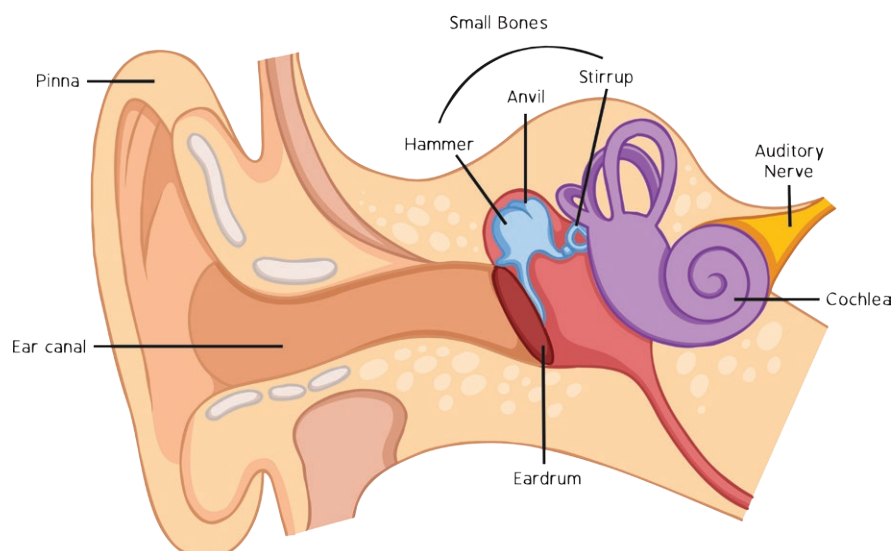
Key Revision Facts

- A typical sound wave:



- Transverse waves are at right angles to the direction of the wave.
- Longitudinal waves are along the same direction as the direction of travel.
- Waves which hit a barrier are reflected back.
- Sound can travel through solids, liquids and gases but not through a vacuum.
- Sound travels fastest through a solid because the particles are tightly packed together and the vibrations can be passed on very quickly.
- The unit of loudness is the decibel dB.
- The unit of frequency is the Hertz (Hz).
- The larger the amplitude the louder the sound.
- The greater the frequency, the higher the pitch.

The Ear



How the Ear Works

- The air particles start to vibrate, the vibrations are passed on to the ear drum, ossicles and the cochlea. Signals are passed from the cochlea to the brain by the auditory nerve and the brain interprets these signals as sound.

Echoes

- When sound reflects off a surface, or several surfaces, it produces an echo. There is always a delay between making the sound and hearing the echo.