

Science Sound

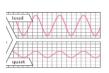


Year 4 Spring Term

Key Learning



Sound is a type of energy. Sounds are created by vibrations. The louder the sound the bigger the vibration.



The size of the vibration is called the amplitude . Louder sounds have a larger amplitude, and quieter sounds have a smaller amplitude.

Pitch is a measure of how high or low a sound is. A whistle being blown creates a high-pitched sound. A rumble of thunder is an example of a lowpitched sound.

You can change the pitch of a sound in different ways depending on the type of instrument you are playing. For example, if you are playing a xylophone, striking the smaller bars with the beater causes faster vibrations and so a higher pitched note. Striking the larger bars causes slower vibrations and produces a lower note.

Sound can travel through solids, liquids and gases. Sound travels as a wave, vibrating the particles in the medium it is travelling in. Sound cannot travel through a vacuum.



Inside your ear, the vibrations hit the eardrum and are then passed to the middle and then the inner ear. They are then changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.

| <u>Key Vocabulary</u> | | | |
|-----------------------|---|--|--|
| Vibration | A quick movement back and forth. | | |
| Sound Wave | Vibrations travelling from a sound source. | | |
| volume | The loudness of a sound. | | |
| amplitude | | | |
| pitch | | | |
| ear | An organ used for hearing | | |
| soundproof | To prevent sound from passing through. | | |
| absorb sound | To take in sound energy. Absorbent materials have the effect of muffling sound. | | |
| eardrum | A part of the ear which is a thin, tough layer of tissue that is stretched out like a drum skin. It separates the outer ear from the middle and inner ear. Sound waves make the eardrum vibrate | | |

| Working Scientifically | | | |
|------------------------|------------------------|------------------------------|--|
| Setting up practical | Using equipment safely | Using results to draw simple | |
| investigations | | conclusions | |