

SCIENCE · GRADE 4

# Sound

How vibrations become music

## Key ideas

1

### Vibration

A fast back-and-forth movement. ALL sound starts with a vibration.

*Example: A guitar string moving back and forth.*

2

### Sound waves

Vibrations passing through air, water, or solids — like ripples in a pond.

*Example: Sound travels FOUR TIMES faster in water than in air.*

3

### Pitch

How HIGH or LOW a sound is. Faster vibrations = higher pitch.

*Example: A bird's tweet (high) vs a drum (low).*

4

### Volume

How LOUD or QUIET a sound is. Bigger vibrations = louder.

*Example: A whisper vs a shout.*

5

### Eardrum

A thin membrane in your ear that vibrates when sound hits it. Your brain turns those vibrations into 'sound'.

## Quick test — see vibrations

Stretch a rubber band between two fingers. Pluck it — you'll see it vibrate AND hear a sound. Now stretch it tighter. Pluck again. The sound is HIGHER and the vibration is faster. Sound and vibration are the SAME THING.



