## What ouryou've learnt already

- That we hear sounds with our ears (Y1)
- To classify materials as solids, liquids or gases (Y4) •

#### Choices

Which instruments to use for investigations

### Key Vocabulary

Decidei	The unit of measurement for sound, abbreviated to Db.	
Distance	A measurement of length between two points.	
Ear	An organ used for hearing.	
Vibration/ vibrate	A movement backwards and forwards at high speed without changing loca- tion	
Sound source	An object creating a sound by vibrat- ing	
Volume	The loudness of sound.	
Particles	Solids, liquids and gases are made up of particles. They are too small to see.	
Pitch	How low or high a sound is.	
Sound	Vibrations that can be detected by the ear	
Sound	Vibrations that can be detected by the ear	
Sound Evaluate	Vibrations that can be detected by the ear To consider how well something has been done	
Sound Evaluate Fair test	Vibrations that can be detected by the ear To consider how well something has been done An enquiry to find out how changing one variable affects something else	
Sound Evaluate Fair test Refute	Vibrations that can be detected by the ear To consider how well something has been done An enquiry to find out how changing one variable affects something else To use evidence to show that a state- ment is incorrect	
Sound Evaluate Fair test Refute Support	Vibrations that can be detected by the ear To consider how well something has been done An enquiry to find out how changing one variable affects something else To use evidence to show that a state- ment is incorrect To use evidence to show that a state- ment is correct	

#### **Diagrams**



The vibrations pass from particle

to particle.







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## Lesson Sequence

L1	How are sounds made?
L2	How do sounds reach our ears?
L3	How can we change the volume of a sound?
L4	How does the volume of a sound change as we move away from the sound?
L5	How can we change the pitch of a sound?
L6	How can we change the pitch of a plucked sound?

## Key Knowledge

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Player

- Sounds are made by something vibrating.
- The thing that is vibrating is the sound source. •
- Sounds travel away from the source in all directions.
- Different sources make different sounds.
- so that we can hear them but may not always be visible to the naked eye.
- Sounds can be quiet or loud. •
- Volume depends on the size of the vibrations. .
- Sounds get fainter/quieter as the distance from the sound source increases. •
- Sounds can be high or low pitch. •
- Pitch depends on the size of the object vibrating. •
- vibrating objects or changing the length of a vibrating air column.

## Sound





Vibrations travel from the source through a material (solid, liquid or gas) to the ear

Pitch can be altered either by changing the material, tension, thickness or length of

## Sound

Describe how sound travels.	How are sounds heard?	Sound travels out in all directions. True or false?	lf
Why is sound important?	Define pitch	What happens between sound and distance?	
Write 3 facts about sound.	Explain what a hydrophone is and how it works.	Does sound travel in space?	



# an object is shorter, what happens to the pitch?

What is volume?

Does sound travel faster in a solid, liquid or gas?

## Four Points