

Year 4 Sound Science Discussion Starter - Follow-On Activities

- Children might think that sound waves travel in straight lines, like light waves. You could ask one child to stand in the middle of the room and make a sound. The rest of the class raise their hands when they hear the sound. This demonstrates that sound travels in all directions.
- Children may think that sound cannot travel through solids or liquids. You could address this by talking through the classroom door and asking if the children could hear you. If you're feeling brave, you could talk into a bowl of water to demonstrate that sound also travels through water. You could ask them to think about a time when they have gone swimming and made sounds while they were underwater.
- Using xylophones or chime bars is a great way to demonstrate the pitch and volume of sounds.
- Visit [this page](#) for more lovely ideas:

KS2 Year 4 Science - Sound Discussion Starter



How Do We Hear?

I think sound travels into our ears through the air.

I think we hear sound because it travels through our skull and reaches our brains.

Sound bounces off things and into our ears.

The ears catch sounds as they go past.



Answers - How Do We Hear.



Asking scientific questions is a great way for you to explore a new topic.

Although not all of your questions will be answered at this point, these facts may help you to understand how **sound** works.



I think

The ears catch sounds as they go past.

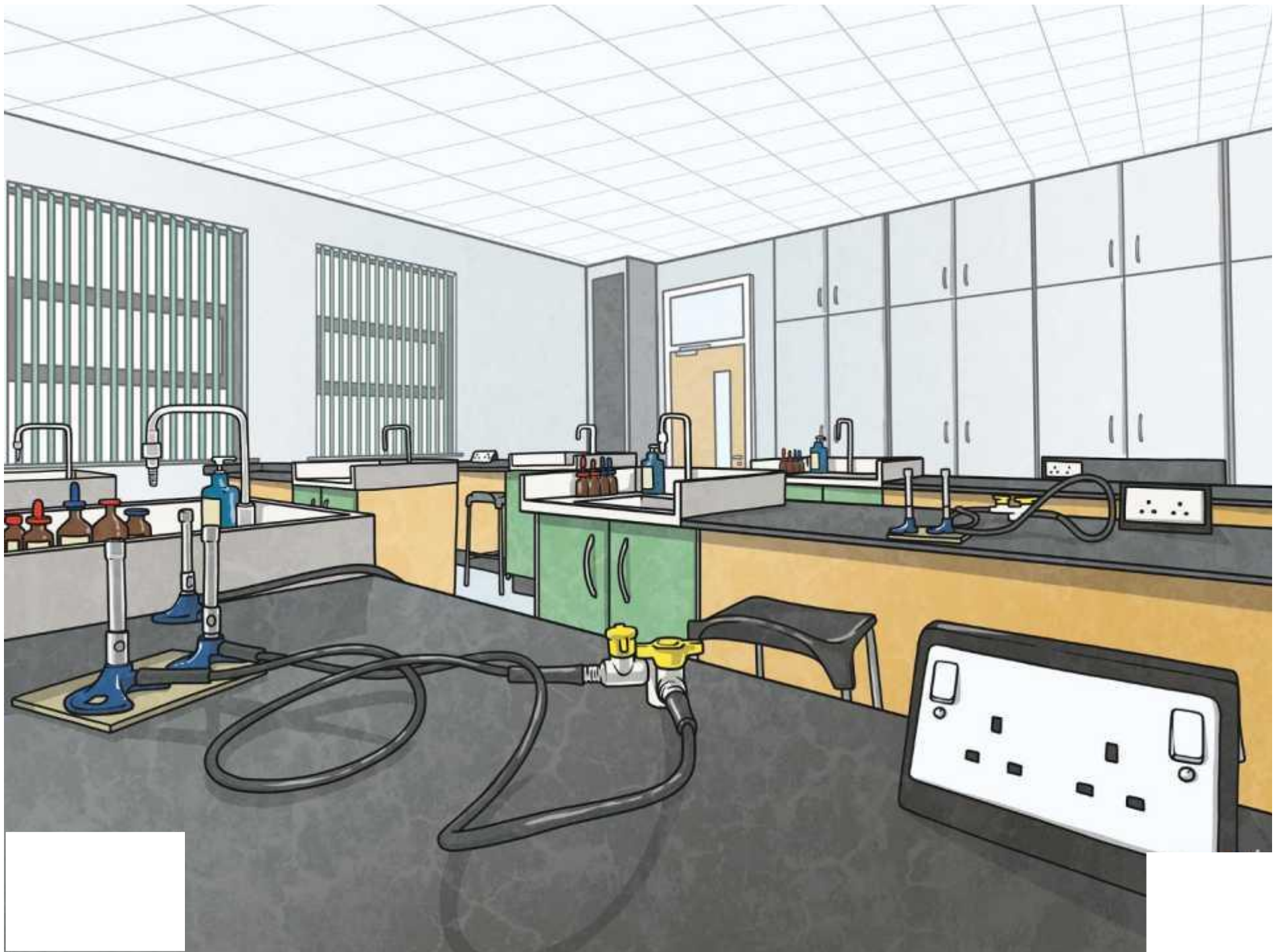
Sound travels through the air into our ears.

Sound waves travel through the air into our ears because sound travels by waves.

Sound waves are vibrations that travel through the air. They are produced by a vibrating object and travel through the air as a series of compressions and rarefactions.

Ears do catch sounds because the outer ear (the pinna) works like a funnel to collect sound.

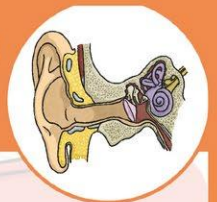
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How Do We Hear?



Answers - How Do We Hear?



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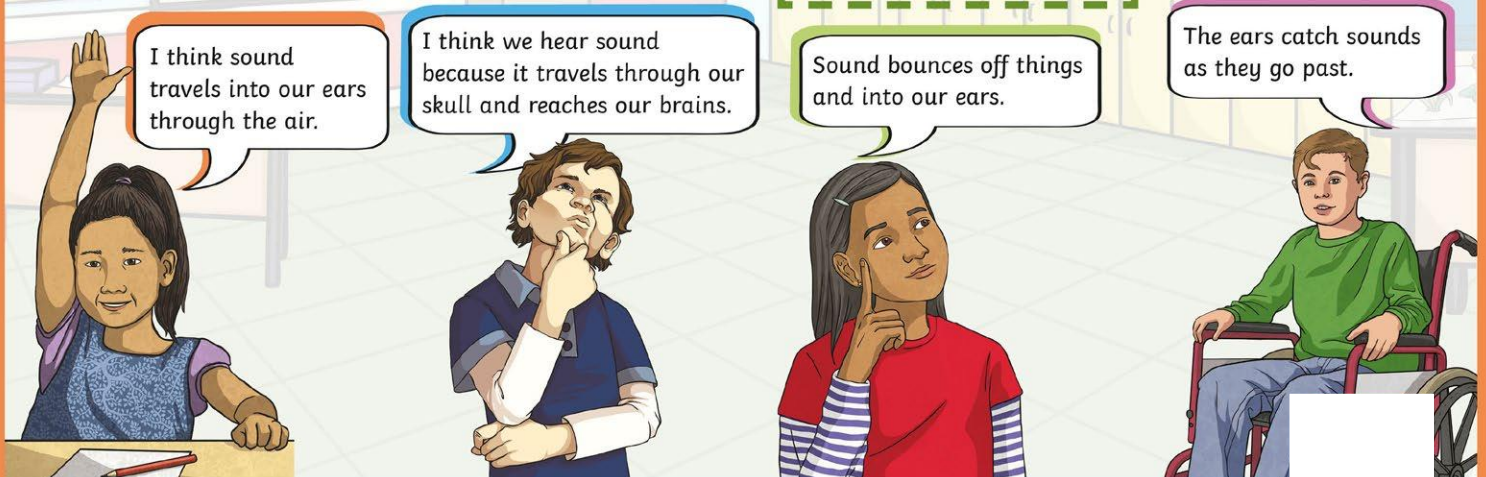
Although not all of your questions will be answered at this point, these facts may help you to understand how **sound** works.

Sound can travel through the air into the ear because sound travels by vibrations of particles.

We mostly hear when sound is collected by the outer ear. It then travels down the ear canal to the ear drum. The ear drum vibrates, which goes into the cochlea and then to the brain.

Sound waves do bounce off smooth, hard objects or surfaces until they lose their energy. However, sounds are not always reflected. If they meet a soft object a lot of sound is absorbed.

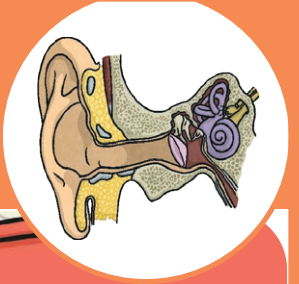
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Year 4 Sound Science Discussion Starter - Teacher Guidance

This science discussion starter pack is designed to encourage children's scientific thinking. Included are two sizes of the discussion starter, a PowerPoint version and a follow-on sheet, giving you more flexibility in the classroom.

Before showing the discussion points, you could ask the question to your class for them to share initial ideas. The starter page with the children's answers could then be displayed for the whole class to see and discuss as a class. Alternatively, children could work in smaller groups to discuss the points.

Points for children to consider include which children they agree with and why. They should explain if there are any statements that they disagree with and whether there are some they partially agree with.

It is important that while using this resource, any common misconceptions that children have are addressed during the topic. Common misconceptions may include:

- confusing volume and pitch;
- that an event in the distance can be seen and heard at the same time;
- that in order to change the pitch, an object should be hit harder.