

Primary Light & Sound: seeing sound vibrations

A sound and vibrations experiment, showing two different ways to demonstrate that sound is caused by vibrations.

A seeing sound vibrations resource sheet can be found on our website, together with other Ogden primary curriculum resources: <https://www.ogdentrust.com/resources>.

Transcript

00:05

Hello my name is Hayley Moyle. I'm from Hillstone Primary School and we're part of the Ogden

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Trust pilot partnership. I'm here today to show you a sound and vibrations experiment. Super one for

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key stage 2 - and we're going to be exploring two different ways to demonstrate how sound

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is caused by vibrations. All you need is a tuning fork, a small container of water,

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a standing clamp, a piece of string and a ping pong attached to the end of the string with

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just some black tape. To start this experiment. I would make a sound with this tuning fork simply

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by striking it on the side - I'm sure the children will absolutely love this part -

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now we can hear a sound but I'm sure the children would struggle to get their head

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around the concept of the vibrations. The tuning fork's moving too quickly for us to see it. Now

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this is where it gets really exciting - get your children to get as close to the container of

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water as possible as they are going to have to really concentrate on something that's going to happen.

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Do exactly the same thing again to make a sound, then place the tuning fork straight into the water.

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And if they got their faces close enough, which I'm sure they did, they'd have got a nice

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splash in their face. So as they couldn't see any vibrations when we just held the

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tuning fork up, the water is a really good representation of how sound is caused by

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vibrations and that's a really good lead on to how particles and sound work. So a second

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experiment to demonstrate the same thing is with the ping pong on a string. So same

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concept again, strike the tuning fork and show the children that they can't actually see the

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vibrations. But watch what happens this time. I think that extreme movement of the ping pong

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ball is a fantastic visual representation of how sound is caused by vibrations.

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The Ogden Trust Directed by Oliver Richards

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Presented by Hayley Moyle

Produced by Daniel Cottle

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Music by Kevin Macleod