

# Can you feel the beat?

## GOOD VIBRATIONS



<b>(Type)</b> Science background	<b>Ages</b> 7-14	<b>Topic</b> Sound	<b>Time</b> <10 mins
	<b>Skills used</b> Observation - Curiosity		

## Overview for adults

Good Vibrations lets you feel the vibrations that a sound produces. You stand on a platform and choose a type of music to play. The platform vibrates with the music whilst it plays through the speakers, giving you a whole body experience of the sound.

## What's the science?

Sound is a vibration. Anything that vibrates makes a sound, from an earthquake to a butterfly's wings. Lower frequencies we call bass and higher frequencies we call treble. Middle frequencies are called mid-tones. Lower frequencies travel through us, whereas higher frequencies tend to bounce off us, which is why we feel bass much more strongly than treble. This is why the rhythm section of music is often put in bass – Can you feel the beat?

## Science in your world

Earthquakes, some of the biggest vibrations in our world are actually really low sound waves. They make the earth ring like a bell as they travel through it.

We can use sound waves in lots of different things – blasting rock in a mine, ultrasound at a hospital, even cleaning sewers by making the pipes vibrate so much that the grime falls off!

## Things to think and talk about ...

- Do the types of music feel different? Why do you think that is?
- Which can you feel more, high or low sounds? Why?

## Things to investigate ...

- Hold hands with someone not on the platform, can they feel the vibration?
- Try talking. Does the vibration make your voice sound different?

## Museum links

You can explore some sound recording technology in our Life Online gallery in the foyer and explore the sound archive in Mediatheque on level 6.

## Did you know...?

Vibrations that are too strong can be harmful. Pneumatic drills that vibrate a lot can give their users serious injuries. Health and Safety is always important around scientific equipment.