Exploring Pitch

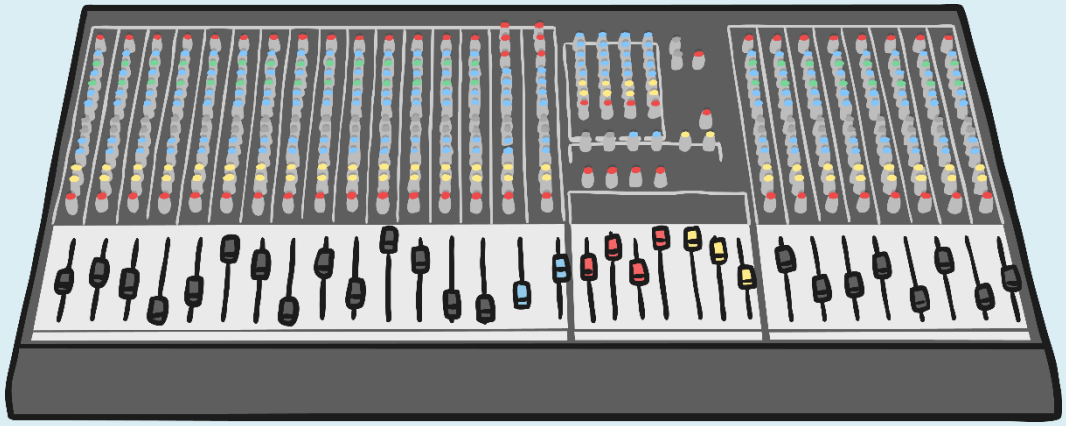


A task setting PowerPoint Pack about the pitch of different objects.

LO: To find patterns between the pitch of sounds and the features of the objects that produce them.

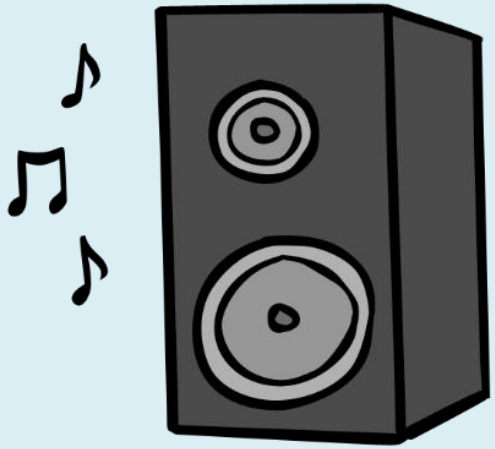
Recap

Can you remember how sound is made?



Recap

Sound is made when objects vibrate.



The vibrations make the air around the object vibrate and the air vibrations travel into your ear.

Recap

Which statement is correct?

a) Sounds can travel through liquids.

b) Sounds can travel through solids.

c) Sounds can travel through gases.

d) Sound can travel through liquids, solids and gases.

Recap

Sound can travel through solids, liquids and gases.

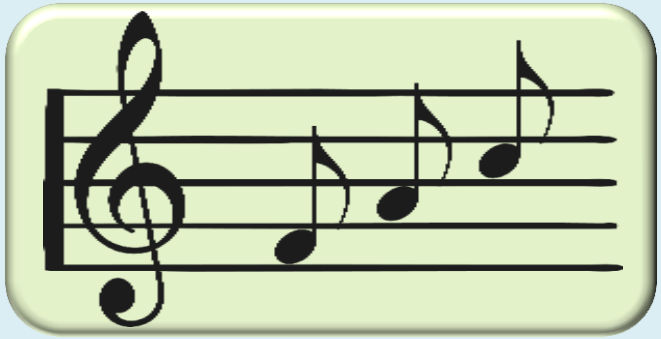
However, sound travels through some materials better than others.

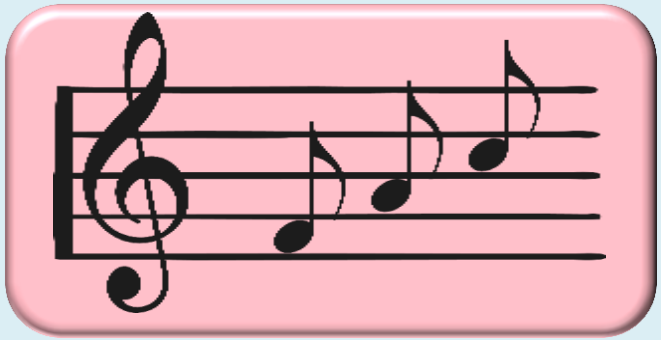
Introduction

Pitch describes how high or low a sound is.

A high sound has a high pitch and a low sound has a low pitch.

Listen to these two sounds. Which one has the highest pitch?





High pitched sounds are made by fast vibrations.

Smaller, shorter, thinner, tighter and denser objects make more high pitched sounds!

Which object will make the higher pitched sound? Why?
Click the ears to find out.

Low pitched sounds are made by slow vibrations.

Larger, longer, thicker, looser and less-dense objects make more low pitched sounds!

Which object will make the lower pitched sound? Why?
Click the ears to find out.

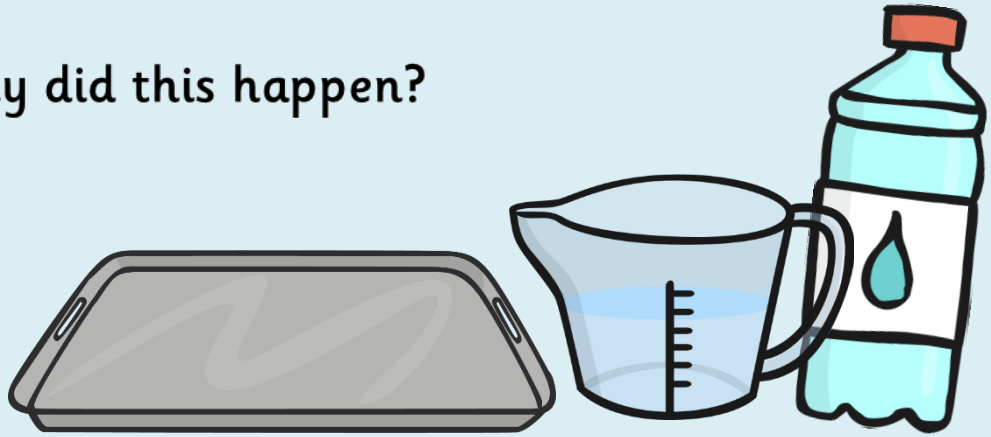
Mini Investigation

With a partner, take a bottle, a tray and a jug of water.

1. Predict how the pitch of the noise will change when you blow over the top of the bottle with different amounts of water in it.

2. Test your prediction. Were you correct?

3. Why did this happen?



Activity

For our main activity, you will make your own junk instrument. The design brief for your instrument is…

- It produces at least three different pitches.
- It is designed so that its pitches increase in order.
- Somebody else can play it.

Plenary

Can you answer this question?

Why does your instrument create different pitches of sound?

Is it because of size, thickness, tightness or density?

THE END