

THAT'S A SOUND IDEA!



STUDENT WORKBOOK

WONDER



ACTIVITY

1

ON THE BALL

If you want to make a ball move, you have to hit it hard, right? Maybe not! There might be another way. You can do this tuning fork experiment to find out more.

USE THE FORK

WHAT YOU NEED:

FROM THE KIT:

- Ping-pong ball
- Push pin
- String
- Tuning fork

OTHER ITEMS:

- Scissors

WARNING: **WARNING! Be careful with a tuning fork.** Never touch it to teeth, glasses, or windows. It can break those things!



WARNING: **WARNING! Sharp objects can cause injury.** Don't cut or poke yourself. Get an adult to help!



WARNING: **WARNING! Be careful with scissors.** Always point them away from your body! Ask an adult for help with cutting cardboard.





THINK ABOUT IT!

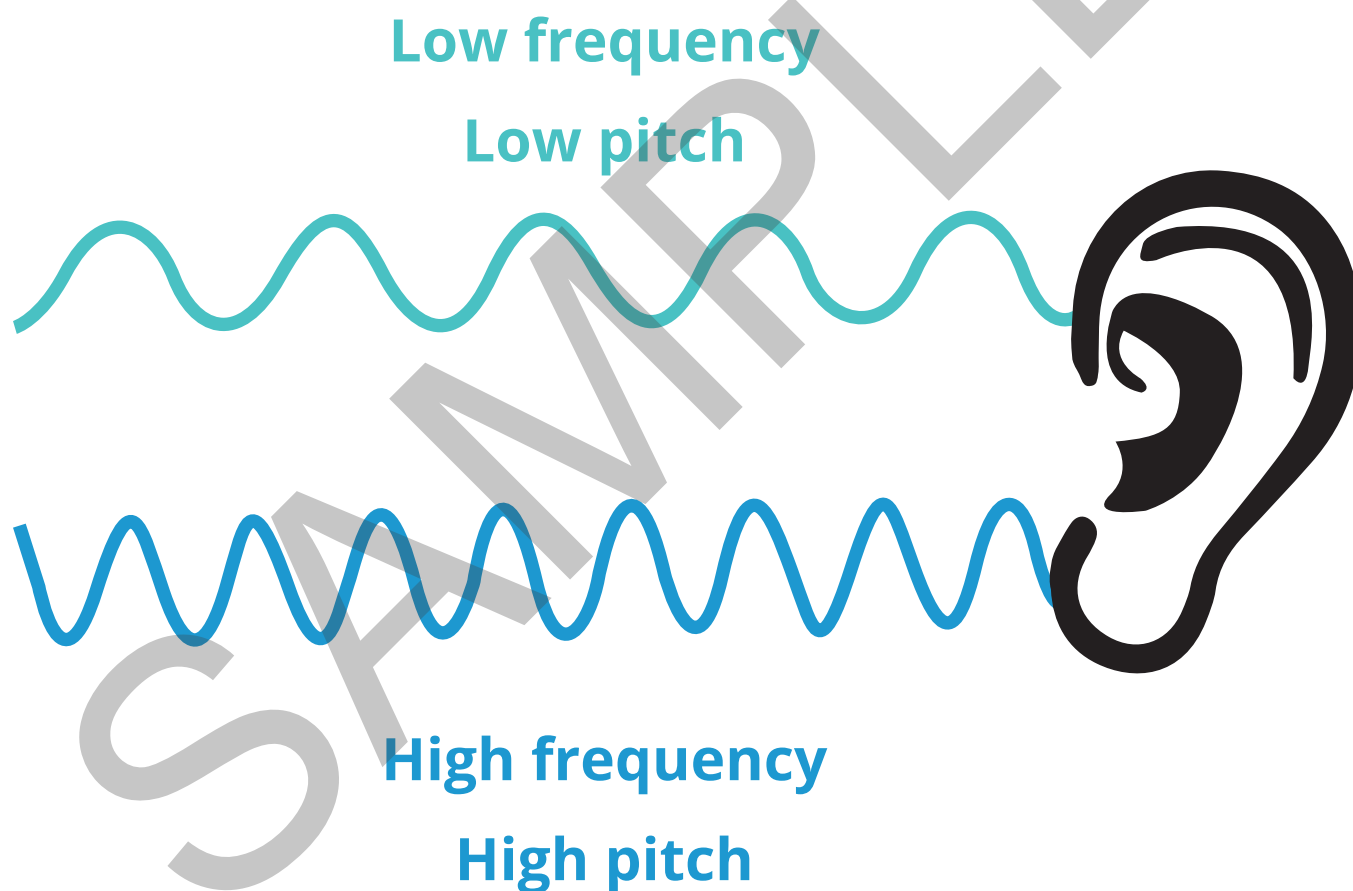
? 1. Write or draw what happened with the tuning fork and pepper.

? 2. You didn't touch the tuning fork to the pepper, so what do you think made the pepper move?

? 3. Did any of the other sounds make the pepper move?
If so, which ones?

? 4. How is the pepper experiment different from the ping-pong ball experiment?

Imagine there are two sound waves moving through the air. One is vibrating faster than the other, which means it has a higher frequency. It hits your ear more times every second than the slower-moving sound. You hear the faster-moving sound as a high-pitch sound and the slower-moving sound as a low-pitch sound.



Different objects can make sounds with different frequency and pitch. There's only one tuning fork in the kit, but there are all kinds of tuning forks, each with a different pitch. They have different lengths, which causes them to vibrate differently.



SCIENCE UNLOCKED

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Kit	SU-SDIDEA
Instructions	IN-SDIDEAS
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