



# Coleman Primary School

## Year 4 Spring 1 Knowledge Organiser

### Science—Sound

#### Describing sounds

We can describe sounds by talking about their **pitch** and **volume**. **Pitch** describes how high or low a sound is and **volume** explains whether it is loud or quiet.



Which pitch and volume would each sound be?

#### Vibrations

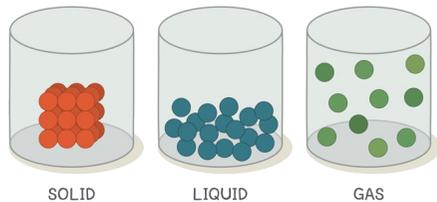


When objects **vibrate**, a sound is made. The **vibrations** make the air particles around the object **vibrate** and the air **vibrations** enter your ear. These are called **sound waves**.

If an object is making a sound, a part is **vibrating**, even if you cannot see the **vibrations**.

Sounds can travel through solids, liquids or gases because the sound waves **vibrate** the particles in each state of matter.

Did you know sound travels best through solids as the particles are closest together?



SOLID

LIQUID

GAS

You will learn...

- to name and describe sounds
- that sounds are produced by vibrations
- what is vibrating when a sound is made

#### Key Vocabulary: Sound

<b>blow:</b> to push air into something	<b>decibel:</b> the unit of measure we use to measure how loud a sound is
<b>frequency:</b> a measure of how many times per second a sound wave cycles	<b>musical instruments:</b> items that can be used to make musical sounds
<b>sound proof:</b> to use materials to stop sound	<b>pluck:</b> to quickly pull and release a string
<b>sound waves:</b> invisible waves that travel through the air, water and solid objects as vibrations	<b>sound source:</b> something that makes a sound
<b>pitch:</b> how high or low a note is	<b>strike:</b> to hit, for example a drum or xylophone
<b>vibrate:</b> to move back and forth quickly	<b>volume:</b> how loud or quiet a sound is

#### Musical Instruments



Guitar

*What vibrates?*  
The strings.

*How to play it?*  
**Pluck** or **strike** the strings.



Violin

*What vibrates?*  
The strings.

*How to play it?*  
**Pluck** the strings or use the bow.



Drum

*What vibrates?*  
The skin.

*How to play it?*  
**Strike** it,



Recorder

*What vibrates?*  
The air inside the recorder

*How to play it?*  
**Blow** into it.

#### Scientific Skills Progression

**In Year Three you were...**

- beginning to set up simple practical enquiries, comparative and fair tests
- using results to draw simple conclusions, suggest improvements and raise further questions
- learning to use straightforward scientific evidence to answer questions or to support your findings

**In Year Four you will be...**

- setting up simple practical enquiries, comparative and fair tests
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- using straightforward scientific evidence to answer questions or to support your findings