

**The Primary Stage of Grades (4-5)  
School Year 2022- 2023**

Name: \_\_\_\_\_

**Subject:** Science

**Worksheet 1:** How sounds are made

**Unit 7:** Sound

Date: / /

**Class:** Grade 4 CP (All Sections)

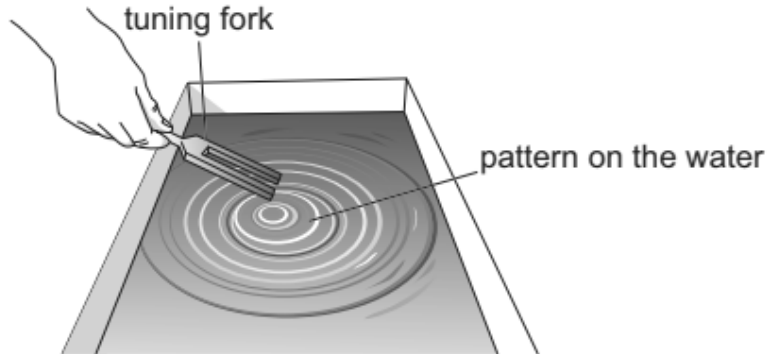
**Objective/s:**

- Investigate how sounds are made by vibrating sources.

**Question 1:**

Yuri hits the tuning fork to make a sound.

He puts the tuning fork on water.



Explain why there is a pattern on the water.

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**Question 2:**

Which of these statements is true?

Tick (✓) the **correct** box beside each sentence.

	<b>true</b>	<b>false</b>
Sound <b>can</b> travel around corners.	<input type="checkbox"/>	<input type="checkbox"/>
Sound <b>can</b> spread out in all directions.	<input type="checkbox"/>	<input type="checkbox"/>
Sound <b>cannot</b> travel through solids.	<input type="checkbox"/>	<input type="checkbox"/>
Sound <b>can</b> travel through liquids.	<input type="checkbox"/>	<input type="checkbox"/>
Sound <b>can</b> travel in a vacuum.	<input type="checkbox"/>	<input type="checkbox"/>

**Question 3:**

A vacuum is a space without any air or other matter.

Explain why sound cannot travel through a vacuum.

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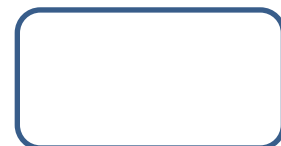
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**Question 4:**

The table shows the speed of sound through different materials. Use the table and the information to answer the questions below:

Material	Speed of sound (m/s)
Steel	6000
Water	1400
Air	355

- a. In which material did sound travel the fastest? .....
- b. In which material did sound travel the slowest? .....
- c. Which material is a solid? .....
- d. Which material is a gas? .....
- e. Draw diagrams of how the particles are arranged in steel, water, and air:



- f. Use the diagrams to explain why sound has different speeds in different materials.

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**Question 5:**

Angelique shakes a bell to make a sound.



**(a)** Complete the sentence.

The bell makes a sound because it .....

**(b)** Angelique shakes a smaller bell with the same force.

It makes a different sound to the larger bell.

Describe how the sound of the **smaller** bell is different.

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**(c)** Angelique shakes the smaller bell with less force.

It makes a different sound.

Describe how the sound made with **less force** is different.

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