

**NAME:**

**SUBJECT: SCIENCE**

**YEAR: FOUR**

**ASSIGNMENT NUMBER: FOUR**

**Write directly on the paper.**

Maximum marks are given for answers containing plenty of detail, explanation and evidence.

Look carefully at the number of marks available for each question and always try to give one different piece of information for each of the marks available.

1. Think back to when you made the model guitar. How did the strings make sounds? Include information about the vibration of sound waves in your answer.

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(3 marks)

2. Explain what the word 'pitch' means when we are talking about sound.

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(1 mark)

3. Explain how a guitar player could change the pitch of the sound coming from the guitar. Think about the strings of the guitar.

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(2 marks)

4. I blow across the top of some bottles with different amounts of water in them.



1 2 3 4 5 6

Which bottle would produce the highest note? Write the number below.

\_\_\_\_\_

(1 mark)

5. Explain your answer to Question 4.

\_\_\_\_\_  
\_\_\_\_\_

(2 marks)

6. Give five sounds that can be made softer or louder.  
Name the sound and describe how to make that sound softer or louder.

Sound - \_\_\_\_\_

How to make it softer or louder - \_\_\_\_\_

\_\_\_\_\_

Sound - \_\_\_\_\_

How to make it softer or louder - \_\_\_\_\_

\_\_\_\_\_

Sound - \_\_\_\_\_

How to make it softer or louder - \_\_\_\_\_

\_\_\_\_\_

Sound - \_\_\_\_\_

How to make it softer or louder - \_\_\_\_\_

\_\_\_\_\_

Sound - \_\_\_\_\_

How to make it softer or louder - \_\_\_\_\_

\_\_\_\_\_

(10 marks)

7. What is the name of the unit that we use to measure the volume of sound?

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(1 mark)

8. *I want to see how far I can move away from someone clapping their hands before I can't hear the sound. I count my footsteps and record my answer.*

*Next, I want to see how far I can move away from an alarm playing on my phone which is sitting on a table, before I can't hear the sound. I count my footsteps and record my answer.*

Which of the above two experiments would give the most accurate results?

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(1 mark)

Explain the reasons for your choice.

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(2 marks)

**TOTAL FOR ASSIGNMENT 23 MARKS**