



WORKSHEET

Full marks 33.5

1 Key words [4]

Column A		Column B
1. medium	☐	a. a region where the particles of a sound wave are crowded together
2. compression	☐	b. the greatest displacement of a particle from its mean position
3. frequency	☐	c. a line drawn at 90° to a mirror at the point of incidence
4. amplitude	☐	d. parallel rays stay parallel after striking a smooth surface
5. normal	☐	e. the number of complete waves made in one second
6. periscope	☐	f. giving out its own light
7. regular reflection	☐	g. the distance between two crests next to each other
8. luminous	☐	h. the substance a wave travels through
		i. an instrument with two plane mirrors at 45° , for seeing over a wall

Choose the correct option for each of the following questions.

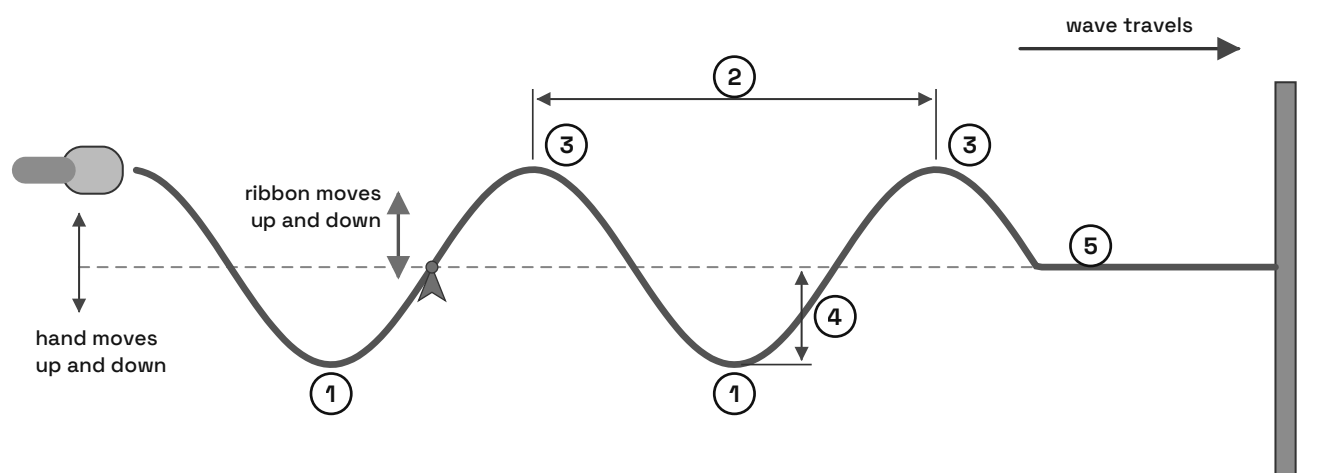
- Science Playground · science-playground.com/learn/grade-7-science/energy-in-daily-life · Page 1 of 4



3 Label the diagram

[2.5]

The diagram shows a wave on a rope. Write the names of the parts numbered 1 to 5. Each carries 0.5 mark.



- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | |

4 Very short answers

[4]

Write very short answers to the following questions.

- a. What is the SI unit of frequency? [1]
- _____
- b. About how fast does sound travel in air? [1]
- _____
- c. State the first law of reflection of light. [1]
- _____
- d. A ray strikes a mirror at 30° to its surface. What is the angle of incidence? [1]
- _____



5 Short answers

[8]

Write short answers to the following questions.

- a. Write any two differences between a longitudinal wave and a transverse wave.

[2]

- b. Write any two differences between regular and irregular reflection.

[2]

- c. Give a reason: a sound wave is called a mechanical wave.

[2]

- d. When a drum is hit hard, the amplitude of the sound is high. Give a reason.

[2]

6 Long answer

[4]

Write a long answer to the following question.

How does a periscope work? Explain with a ray diagram.



[4]

a. A wave has a wavelength of 2 m and travels at 10 m/s. What is its frequency?

[2]

[illegible]

Answer: _____

[2]

Answer: _____

[2]

You see a flash of lightning and hear the thunder 9 seconds later. About how far away is the storm? Why do you see the flash before you hear the thunder?

(not marked)

Ray	Angle of incidence	Angle of reflection
1		
2		
3		

What did you find?
