

Using information found in the book, verify whether the following statements are true or false. Check your answers in the book. List the page number where you found the information beside your answer.

Statement 1 Earthquakes involve waves inside Earth. True False Page Number

Statement 2 X-rays can pass easily through skin but not very easily through bone. True False Page Number

Statement 3 Light waves are an example of mechanical waves. True False Page Number

Statement 4 In transverse waves, the disturbance moves back and forth in the same direction that the wave travels. True False Page Number

Statement 5 Pulling a spring toy up and down creates longitudinal waves. True False Page Number





Test Your Knowledge of Waves

Follow the instructions below to complete the activity.

NAME

DATE

Test your knowledge of waves by answering these brain teasers.

1. What are waves?

2. What are surface waves?

3. What are light waves?

4. Explain how waves move.

5. Give examples of electromagnetic waves.

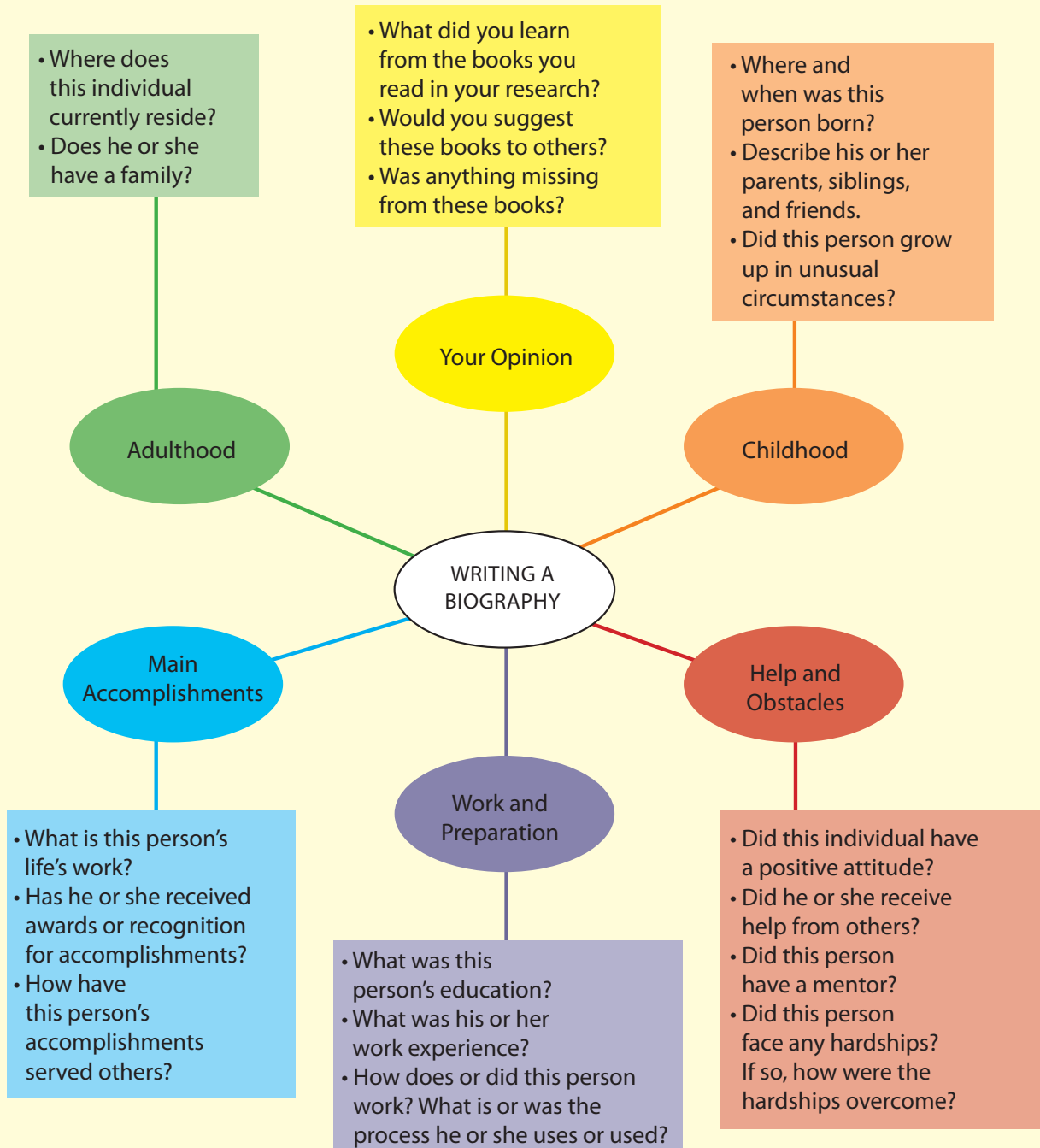


Using the information found in the book, fill in the missing information below.

1. Mechanical waves need the help of to make them move.
2. Waving a piece of string back and forth creates waves.
3. The amplitude of a wave is related to the wave's .
4. Water waves involve both transverse and motion.
5. For water waves, the top of the wave is called the .
6. The of a wave is the amount of time it takes to complete one cycle.



Many scientists have contributed to the study of waves. Research online, and choose a scientist that you are interested in learning more about. Then, try researching and writing a biography about that person using this concept web as a guide.





Write a Letter

Follow the instructions below to complete the activity.

NAME

DATE

After completing the activity on pages 26–27, write a letter to a friend describing it. The letter should expand on your most important discoveries from the activity. What was the result? Was the activity difficult to do? What did you learn from it?



1 What causes a wave?

2 What is the usual source for waves on a lake?

3 What are two types of mechanical waves?

4 Does a wave carry energy from one place to another?

5 What type of waves travel through a spring toy?

6 Can electromagnetic waves travel through space?

7 What are the top and bottom of a wave called?

8 What waves are used to see inside the body?

9 What machine uses waves to cook food?

10 How do waves help us see?



Key Words Match-Up

Write the words from the list below in the box above the correct definition for each word.

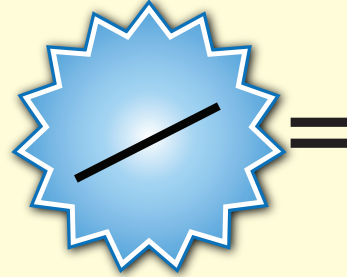
NAME

DATE

KEY WORDS

| | |
|--------------|---------------|
| atom | patterns |
| disturbance | perpendicular |
| horizontally | satellites |
| matter | |

Your Score is



%

- | | |
|--|--|
| 1. <input type="text"/> the thing that carries energy as a wave travels | 5. <input type="text"/> a small unit of matter that most of the objects around us are made of |
| 2. <input type="text"/> anything that takes up space | 6. <input type="text"/> things that repeat regularly |
| 3. <input type="text"/> in a way that is parallel to the ground | 7. <input type="text"/> objects in space that travel around much larger objects |
| 4. <input type="text"/> at a 90-degree angle with another surface | |





Quiz Answer Key

Compare your quiz answers with the answer key below.

NAME

DATE

- 1** An energy source creates a disturbance
- 2** The wind
- 3** Ocean waves and sound waves
- 4** Yes
- 5** Longitudinal waves
- 6** Yes
- 7** Crest, trough
- 8** X-rays
- 9** A microwave oven
- 10** Light waves bounce off objects

