Name: Date: Score: / 8

Wave Size and Spacing: Learn and Practice

Amplitude and wavelength in water

Read each question. Circle the best answer.

💡 Parts of a Wave

- Waves are repeating patterns of motion that carry energy.
- Amplitude is how far a wave rises from its resting level.
- Wavelength is the distance from one crest to the next.
- tall waves far apart: big amplitude, long wavelength

1 Two waves have the same wavelength. Which one carries more energy?

A. The calmer one

B. The one with smaller amplitude

C. The one with bigger amplitude

D. Neither carries energy

2 What does amplitude tell us about a wave?

A. How tall it is B. How salty it is

C. How old it is D. What color it is

3 You shake a rope faster. What happens to the wavelength?

A. It stays the same B. The rope grows

C. It gets shorter D. It gets longer

4 What is the top of a wave called?

A. The crest B. The root C. The floor

D. The trough

5 Ocean waves mostly carry what from place to place?

A. Fish B. Energy C. Salt D. Ice

6 A cork bobs up and down as a wave passes. What does this show?

A. Waves have no energy

B. Water moves up and down, not forward

C. The cork is swimming

D. The water flows away

7 What is the lowest point of a wave called?

A. The crest B. The sail C. The trough

D. The peak

8 📏 What is wavelength?

A. The height of a wave

B. The depth of the ocean

C. The speed of a boat

D. Distance from one crest to the next

✏️ Explain it! Write two facts you learned about wave size and spacing.

ANSWER KEY

Wave Size and Spacing: Learn and Practice (answers)

Amplitude and wavelength in water

Read each question. Circle the best answer.

1 Two waves have the same wavelength. Which one carries more energy?

A. The calmer one

B. The one with smaller amplitude

C. The one with bigger amplitude

D. Neither carries energy

Taller waves carry more energy. That is why big storm waves can move huge rocks.

2 What does amplitude tell us about a wave?

A. How tall it is B. How salty it is

C. How old it is D. What color it is

Amplitude measures how high the wave rises above calm water. Bigger amplitude means a taller wave.

3 You shake a rope faster. What happens to the wavelength?

A. It stays the same B. The rope grows

C. It gets shorter D. It gets longer

Shaking faster squeezes more waves into the same space, so the crests are closer together.

4 What is the top of a wave called?

A. The crest B. The root C. The floor

D. The trough

The highest point of a wave is the crest. You can remember it like the top of a hill.

5 Ocean waves mostly carry what from place to place?

A. Fish **B. Energy** C. Salt D. Ice

Waves move energy across the water. The water itself mostly bobs in place.

6 A cork bobs up and down as a wave passes. What does this show?

A. Waves have no energy

B. Water moves up and down, not forward

C. The cork is swimming

D. The water flows away

The wave energy travels on, but the water and the cork mostly rise and fall in place.

7 What is the lowest point of a wave called?

A. The crest B. The sail **C. The trough**

D. The peak

The low dip between two crests is called the trough.

8 What is wavelength?

A. The height of a wave

B. The depth of the ocean

C. The speed of a boat

D. Distance from one crest to the next

Wavelength is how far apart the waves are, measured from one crest to the next crest.