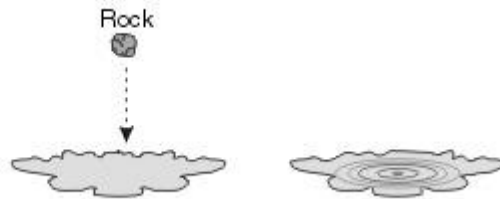


**S8P4-3**

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1.

*Use the diagrams below to answer this question.*



When a rock is dropped into a large puddle,

- A. the energy of the waves is greatest at the center of the puddle.
  - B. the energy of the waves is greatest at the edge of the puddle.
  - C. the energy of the waves is greatest between the center and edge of the puddle.
  - D. the energy of the waves doesn't change as they move away from the center of the puddle.
- 

2. The lowest point of a wave is its

- A. trough.
  - B. breaker.
  - C. swell.
  - D. crest.
- 

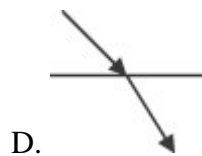
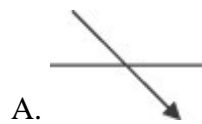
3. The highest point of a wave is its

- A. crest.
  - B. breaker.
  - C. trough.
  - D. swell.
-

4. As Maria stood knee-deep in the ocean, she noted how high the waves came up on her compared to the day before. Which property of waves was Maria observing?

- A. frequency
  - B. wavelength
  - C. amplitude
  - D. speed
- 

5. Which drawing is an example of reflection?



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6. If a light ray hits the back of the spoon at a  $30^\circ$  angle, the angle that the ray will reflect off the spoon is

- A. less than  $30^\circ$ .
  - B.  $30^\circ$ .
  - C. more than  $30^\circ$ .
  - D. unpredictable.
-

7. The color red that we see depends upon the

- A. speed of the red light wave.
  - B. wavelength of the red light wave.
  - C. temperature of the red light wave.
  - D. direction of the red light wave.
- 

8.

*Use the table below to answer this question.*

<b>Light Coming In</b>	<b>Color of Filter</b>	<b>Light Coming Out</b>
red	red	red
red	blue	none
white	red	red
white	blue	blue

The table shows the effects of certain filters on different colors of light. Based on the table, when red light shines on a blue filter,

- A. no light will come out.
  - B. blue light will come out.
  - C. red light will come out.
  - D. white light will come out.
- 

9. The leaves on a tree appear to be green because the molecules of the leaves

- A. emit only green light.
  - B. absorb only green light.
  - C. absorb all colors except green.
  - D. reflect the light back unchanged.
- 

10. For Kathy to see the image, light must have entered her eyes. What specifically entered Kathy's eyes?

- A. only matter
  - B. only energy
  - C. both matter and energy
  - D. neither matter nor energy
-

11.

*Use the diagram below to answer this question.*



Which correctly identifies the parts of a wave in this diagram?

- A. A is the crest; B is the trough; C is the wavelength.
- B. A is the wavelength; B is the crest; C is the trough.
- C. A is the trough; B is the wavelength; C is the crest.
- D. A is the trough; B is the crest; C is the wavelength.


### Answer Key

1. A) the energy of the waves is greatest at the center of the puddle.

2. A) trough.

3. A) crest.

4. C) amplitude

5. C) 

6. B)  $30^\circ$ .

7. B) wavelength of the red light wave.

8. A) no light will come out.

9. C) absorb all colors except green.

10. B) only energy

11. B) A is the wavelength; B is the crest; C is the trough.

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