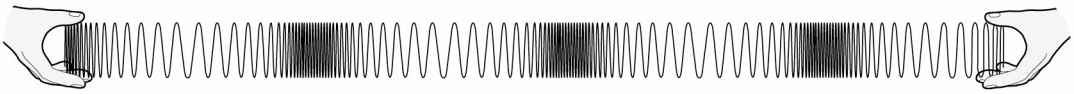
InterActions Unit 2 Cycle 1 Sample Quiz

For Questions 1 through 3.

Bob and Joe are each holding an end of a long spring. Bob moves his hand back 2 cm and forth 2 cm, 3 times per second to create a wave that looks like this



1. What is the frequency of the wave?

    a. 5 Hz

    b. 4 Hz

    c. 3 Hz

    d. 2 Hz

2. How did Bob move his hand to create this wave?

    a. Bob moved his hand back and forth in the sideways (perpendicular) direction to the spring.

    b. Bob moved his hand back and forth in a diagonal direction to the spring.

    c. Bob moved his hand back and forth in the direction of the spring.

    d. Bob moved his hand back in a circular motion.

3. What type of wave is this?

    a. Transverse.

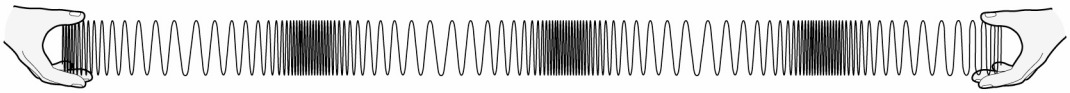
    b. P-wave.

    c. S-Wave.

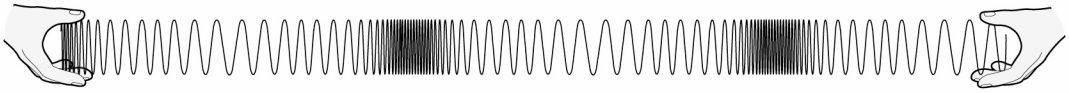
    d. Compression.

For questions 4 and 5

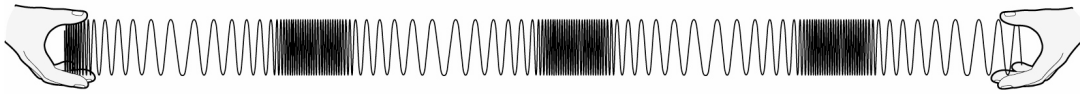
Original wave picture:



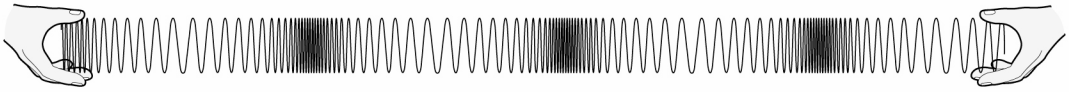
A.



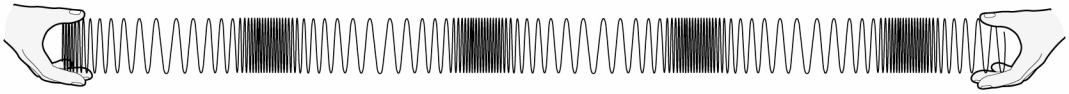
B.



C.



D.



4. Which image above (A, B, C, or D) represents an increase of amplitude of the wave?

    a. A

    b. B

    c. C

    d. D

5. Which image above (A, B, C, or D) represents a decrease in wavelength of the wave?

    a. A

    b. B

    c. C

    d. D

6. Jack moves a stick up and down in a tank of still water. A water wave moves outward from the stick. A nearby leaf floating in the tank begins to move. The leaf

    a. moves up and down as the wave passes by.

    b. moves up and down and forward with the wave.

    c. moves forward with the wave, riding on the peak of the wave.

    d. moves forward with the wave, riding in the low point of the wave.

    e. doesn't' move.

7. Sandra rides her bicycle from her house to school. Her speed varies from 0 to 0.28 miles/min. The trip takes her 20 min to travel the 3 mile distance. Sandra's average speed is

    a. 0.14 min/mile

    b. 0.14 miles/min

    c. 0.10 miles/hour

    d. 0.15 min/mile

    e. 0.15 miles/min

8. Maurice runs track. His race speed varies from 0 to 5 m/s. His average race speed is 4.5 m/s. If Maurice runs the 400 m race, about how much time should it take him?

   a. 44.4 s

   b. 160 s

   c. 88.9 s

   d. 80 s

9. A light source shines on a solar cell connected in a closed circuit containing a buzzer. Complete the energy diagrams below