InterActions Unit 2 Cycle 2 Sample Quiz

REMEMBER exams are given for the last cycle in a unit. They are comprehensive. So practice taking the Unit 2 Cycle 1 quiz again along with this practice exam.

1. When the motion energy of an object is decreasing, the object is

    a. speeding up

    b. not moving

    c. slowing down

    d. moving at constant speed

2. Which type of interaction increases the thermal energy of the interacting objects?

    a. applied

    b. friction

    c. elastic

    d. mechanical wave

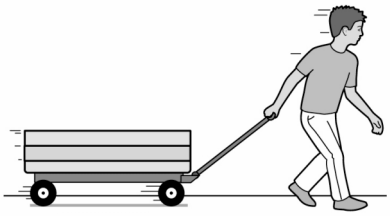
3. A boy pulls a wagon at constant speed. The interaction between the boy and the wagon is

    a. a drag interaction.

    b. a friction interaction.

    c. an elastic interaction.

    d. an applied interaction.



4. A boy pulls a wagon at constant speed. The motion energy of the wagon

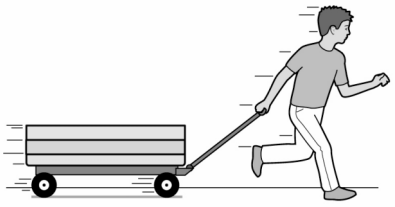
    a. increases.

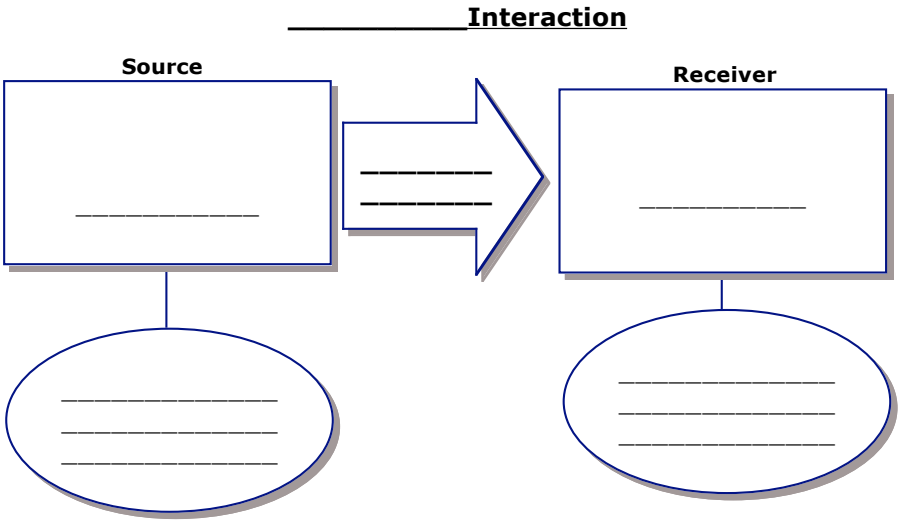
    b. decreases.

    c. doesn't change.

    d. There is not enough information to answer the question.

5. Now the boy speeds up as he pulls the wagon. Fill out the energy diagram for the wagon as it is pulled faster and faster by the boy.





6. A marble is dropped in shampoo. During this drag interaction

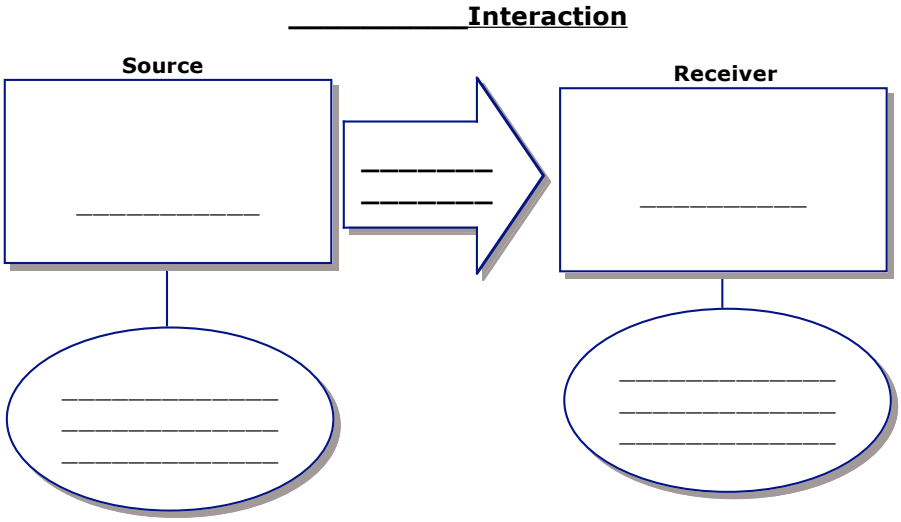
    a. the marble speeds up and the shampoo slows down.

    b. the shampoo speeds up and the marble slows down.

    c. both the marble and the shampoo slow down.

    d. both the marble and the shampoo speed up

7. A boat slows down in the water. Fill out the energy diagram of the situation



8. If the frequency of a primary earthquake wave increases then

   a. the earthquake has more energy and could transfer more energy to the surface causing more damage to buildings.

   b. .the earthquake has less energy and could transfer less energy to the surface causing less damage to buildings.

   c. the earthquake has the same energy and the affects when it reaches the surface would not change.

   d. it will be more likely for the earthquake to transfer its energy below Earth's surface.

9. Two identical guitar strings are plucked. Both vibrate with the same frequency and wavelength. One string has an amplitude of 2 mm, the other has an amplitude of 3 mm. Which statement is true.

    a. The waves have the same energy.

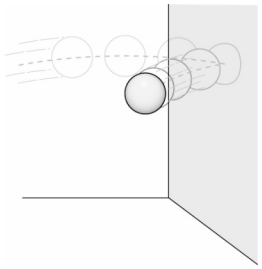
    b. The smaller amplitude has less energy.

    c. The smaller amplitude has more energy.

    d. The smaller amplitude has greater pitch.

    e. The larger amplitude has greater pitch.

10. A ball is thrown at a wall and bounces off. As the ball first reaches the wall it slows down, momentarily stops, and then speeds up in the opposite direction as it leaves the wall. Fill out the energy diagram describing the interaction between the ball and the wall as the ball is slowing down. Explain why the ball slows down.



_____Interaction

Source

_____

_____
_____

_____
_____
_____

Receiver

_____

_____
_____
_____

Explanation:

11. Naguib slides a box of chocolates across the table to Gertrude. The box of chocolates slows down and comes to rest just in front of Gertrude. Fill out the energy diagram below describing the interaction between the box and the table. Analyze and explain why the box slows down.

_____ Interaction

Source

_____

_____
_____
_____

Receiver

_____

_____
_____
_____

Explanation: