

Name: _____

Date: _____ Class: _____

Energy: Conservation and Transfer

1. Which material is the best conductor of electricity? (6.P.3.3)
 - A Wood
 - B Metal
 - C Stone
 - D Plastic

2. Energy is transferred from the sun to Earth mainly by _____. (6.P.3.2)
 - A. Sound Waves
 - B. Air Currents
 - C. Electromagnetic waves
 - D. Compressional Waves

3. When you are riding a bicycle at night, your bicycle's reflectors help people in cars see your bicycle. How do bicycle reflectors work? (6.P.3.2)
 - A They are made of a special material that gives off its own light.
 - B They are hooked up to batteries that allow them to produce light.
 - C They bounce light back from other sources.
 - D They are covered with paint that glows in the dark.

4. A thermometer shows that the outside air temperature is colder than the temperature at which water turns to ice. However, ice on the sidewalk melts. What probably caused this? (6.P.3.1)
 - A The air heating the sidewalk
 - B The sidewalk reflecting sunlight into the air
 - C The wind causing the ice on the sidewalk to melt
 - D The sunlight making the sidewalk warmer than the air

5. Which statement explains why light from the Sun can warm up water in a glass? (6.P.3.2)
 - A Light travels very fast.
 - B Light travels in straight lines.
 - C Water reflects light energy.
 - D Water absorbs light energy.

6. In general, metals are _____. (6.P.3.3)
 - A. poor conductors of heat
 - B. brittle
 - C. poor conductors of electricity
 - D. good conductors of heat

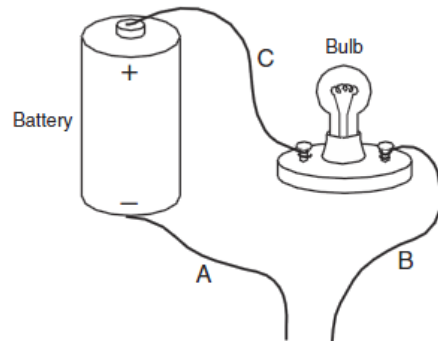
7. When you hold an ice cube, your hand feels cold because (6.P.3.1)
 - A. the cold flows from the ice cube to your hand.
 - B. heat flows from your hand to the ice cube.
 - C. ice is a poor conductor of heat.
 - D. your hand is a better conductor of heat than the ice cube.

8. The main method of heat transfer occurring within water is called _____. (6.P.3.1)
- A. conduction
 - B. convection
 - C. radiation
 - D. insulation
9. Thermal energy is transferred through a material by the collision of _____ within the material. (6.P.3.3)
- A. matter
 - B. atoms
 - C. crystals
 - D. light
10. Which of the following waves is not visible to the human eye? (6.P.3.2)
- A. Red light
 - B. Violet light
 - C. Ultraviolet light
 - D. Blue light
11. The change in the direction of a wave when it enters a new medium is called _____. (6.P.3.2)
- A. Diffraction
 - B. Reflection
 - C. Refraction
 - D. Superposition
12. What kind of energy does a moving baseball have? (6.P.3.1)
- A. Electrical
 - B. Magnetic
 - C. Mechanical
 - D. Chemical
13. Which kind of energy is produced by generators at a dam? (6.P.3.1)
- A. Nuclear
 - B. Electrical
 - C. Chemical
 - D. Solar
14. Which of the following materials is the best insulator? (6.P.3.3)
- A. Copper
 - B. Nickel
 - C. Gold
 - D. Wood

15. What is the primary source of energy on Earth? (6.P.3.2)

- A. The Sun
- B. The moon
- C. Water
- D. Rocks

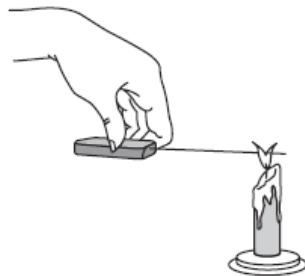
16. The diagram below shows an incomplete electrical circuit that includes a battery, a bulb, and three wires labeled A, B, and C.



The bulb is not lit. What should be done in order to light the bulb and complete the circuit? (6.P.3.3)

- A. Remove wire C.
- B. Remove the battery.
- C. Connect wires B and C.
- D. Connect wires A and B.

17. The drawing below shows a copper wire with a wooden handle being held in a flame.



After a few minutes, what will most likely happen? (6.P.3.3)

- A. The light will change to electricity.
- B. The heat will travel through the wire.
- C. The flame will get brighter.
- D. The flame will go out.

18. When a person speaks into a telephone, sound energy is changed mostly into which form of energy? (6.P.3.1)

- A. heat
- B. light
- C. electrical
- D. chemical

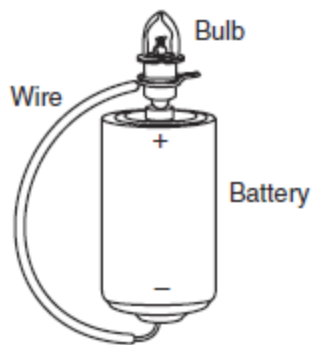
19. A car skids along the road and smoke appears to be coming from under the tires. The heat that produces the smoke is caused by (6.P.3.2)

- A. magnetism.
- B. sound.
- C. light.
- D. friction.

20. What form of energy causes an ice cube to melt? (6.P.3.2)

- A. mechanical
- B. magnetic
- C. sound
- D. heat

21. The diagram below shows a bulb and a wire attached to a battery.



Why would this bulb be lit? (6.P.3.3)

- A. The battery is out of energy.
- B. The bulb is out of energy.
- C. The circuit is opened.
- D. The circuit is closed.

22. What change of state is shown? (6.P.3.1)



- A. Liquid to gas
- B. Solid to gas
- C. Gas to liquid
- D. Solid to liquid