

TEST NAME: 6.P.3.3 Credit Recovery
TEST ID: 819975
GRADE: 06 - Sixth Grade
SUBJECT: Life and Physical Sciences
TEST CATEGORY: School Assessment

Student: _____

Class: _____

Date: _____

1. Which item is not a good conductor of electricity?

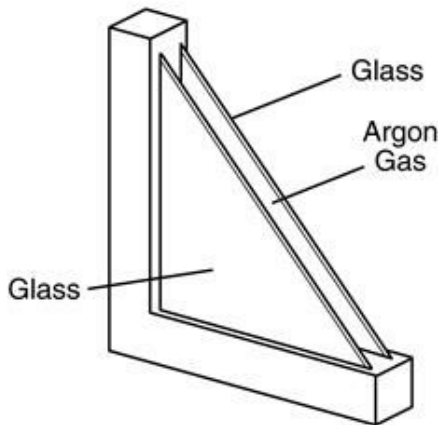
- A. a tin can
- B. a rubber tire
- C. a copper coin
- D. an aluminum wire

2. Which of the following would make the best insulator against the flow of electricity?

- A. copper wire
- B. steel tubing
- C. plastic tape
- D. aluminum foil

3. Some windows can improve energy efficiency in a building by controlling the heat transfer. These windows may be double-paned with an inert gas such as argon in between the panes.

Cross Section of an Energy-Efficient Window



Which is the most likely way these windows reduce thermal energy transfer?

- A. The windows will leak less.
- B. The gas in the windows will reflect more light.
- C. The condensation on the windows will be decreased.
- D. The gas between the window panes will be an insulator.

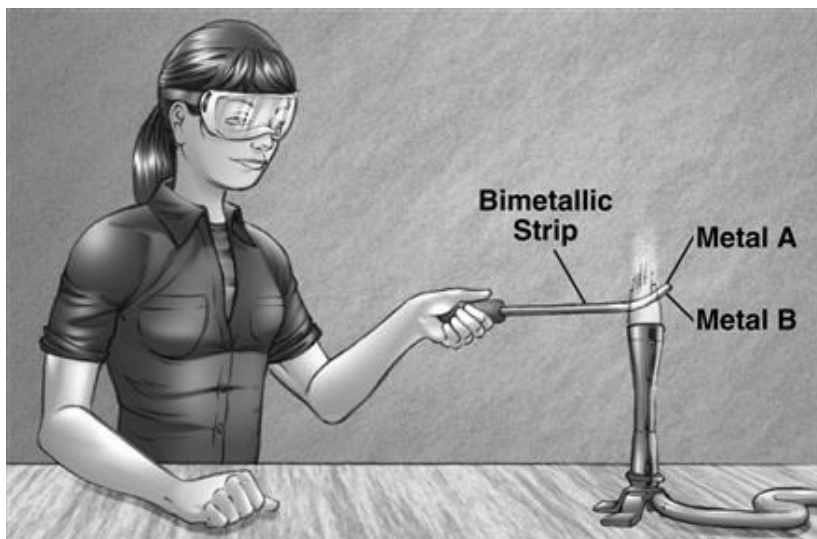
4. Down feathers are used by many sleeping bag manufacturers because down feathers are

- A. fire resistant.
- B. comfortable padding.
- C. good insulators.
- D. water resistant.

5. **Metals that easily transfer electricity are called**

- A. resistors.
- B. magnets.
- C. insulators.
- D. conductors.

6. **A teacher was using an instrument made of two metals called a bimetallic strip. Before she held the bimetallic strip over a flame, the strip was straight. When she placed the bimetallic strip in the flame, the strip started to curl. The curl formed because of different expansions of the metals.**



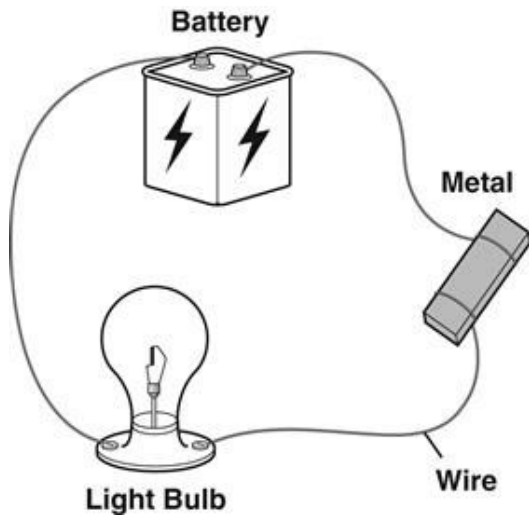
Which best describes the expansion of the metals?

- A. Metal A expanded more rapidly than Metal B.
- B. Metal B contracted more rapidly than Metal A.
- C. The average kinetic energy of Metal B increased more than Metal A.
- D. The average potential energy increased more for Metal A than Metal B.

7. **Plastic conducts very little thermal energy or electricity. Because of this property, plastic would most likely be used to cover**

- A. metal.
- B. wood.
- C. solids.
- D. liquids.

8. The diagram shows a metal strip connected by wires to a battery and light bulb.



Which property of the metal is being tested with this setup?

- A. luster
 - B. density
 - C. elasticity
 - D. conductivity
9. Which material is a good conductor of heat?
- A. plastic
 - B. rubber
 - C. glass
 - D. copper

10. The following advertisement was placed in the window of a camping supply store.

“The double-thermal ‘Polar Snooze’ sleeping bag is here! It will keep you warm for winter camping!”

Based on this advertisement, the best conclusion about Polar Snooze sleeping bags is that they

- A. are lightweight.
 - B. have insulation.
 - C. make winter camping easy.
 - D. cost less than other sleeping bags.
11. Which material best conducts electricity?
- A. wool coat
 - B. copper pipe
 - C. plastic straw
 - D. wooden stick
12. When potholders are used to remove hot pans from an oven, the potholders are serving as
- A. conductors.
 - B. insulators.
 - C. reflectors.
 - D. transmitters.

13. **A child walks across a carpet and generates an electrical charge. The child will get a slight shock by touching a**
- A. metal doorknob.
 - B. plastic toy.
 - C. rubber ball.
 - D. wooden block.
14. **Which material best conducts heat and electricity?**
- A. metal
 - B. plastic
 - C. rubber
 - D. wood
15. **Which material is the best conductor of heat at room temperature?**
- A. air
 - B. water
 - C. sulfur
 - D. copper
16. **Which material does not conduct electricity?**
- A. copper
 - B. silver
 - C. wood
 - D. iron
17. **The handle of a frying pan is often coated in rubber because rubber provides**
- A. heat insulation.
 - B. electric conduction.
 - C. a low melting point.
 - D. a nonstick surface.
18. **Electrical wires are coated with a rubber or plastic because these materials are good**
- A. resistors.
 - B. magnets.
 - C. insulators.
 - D. conductors.

19. The chart shown appears in a catalog of camping equipment.

Sleeping Bag	Temperature Rating (degrees C)
Everyday	10 – 20
Rugged	0 – 10
Arctic	-10 – 10

The difference between the Arctic sleeping bag and the Rugged sleeping bag is most likely that the Arctic sleeping bag is

- A. designed to last longer.
- B. made of material that insulates better.
- C. designed for home use as well as camping.
- D. made of material that provides better cushion.