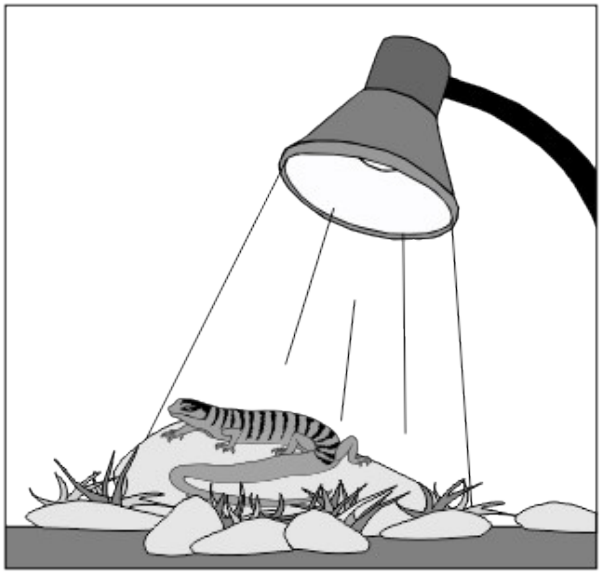
TEST NAME: **Delk Study Set 5.P.3.1 and 5.P.3.2**
TEST ID: **1368013**
GRADE: **05 - Fifth Grade**
SUBJECT: **Life and Physical Sciences**
TEST CATEGORY: **My Classroom**

Student: _____

Class: _____

Date: _____

1. The heat from the lamp allows this lizard to remain warm. This is an example of which type of heat transfer?

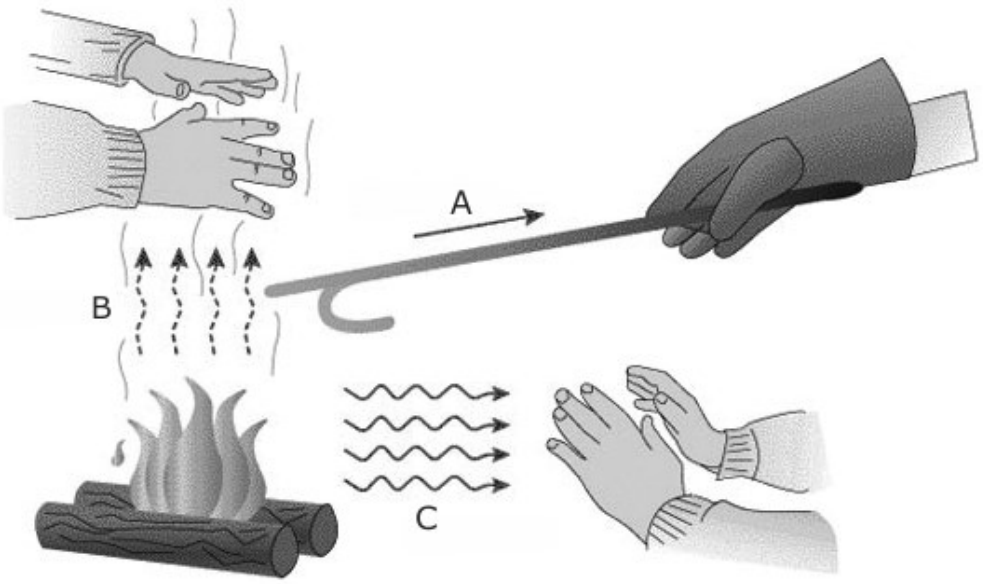


A. radiation

B. convection

C. conduction

2. Which part of the diagram shows conduction?



A. Part A

B. Part B

C. Part C

3. Which is an example of convection?

A. the heat coming from a campfire

B. a spoon in a bowl of soup becoming warmer

C. warmer water at the surface of a swimming pool

4. A man is heating up his dinner over a campfire as shown below.

Why is the man wearing gloves?

A. Metal conducts heat, so the man could burn his hand.

B. Metal radiates heat, so the man could burn his hand.

C. Metal is helping light energy pass to the man's hand.

D. Metal is helping chemical energy pass to the man's hand.

5. People sitting around a campfire are able to feel the heat from the fire. How are the people able to feel the heat from the fire without touching the fire?

A. The heat from the fire travels through the ground and heats the ground around the people.

B. The heat from the fire is conducted through air molecules to the people.

C. The heat from the fire rises in the air and then settles around the people.

D. The heat from the fire radiates from the fire to the people.

6. A pot is heated on a stove. Which process causes the metal handle of the pot to also become hot?

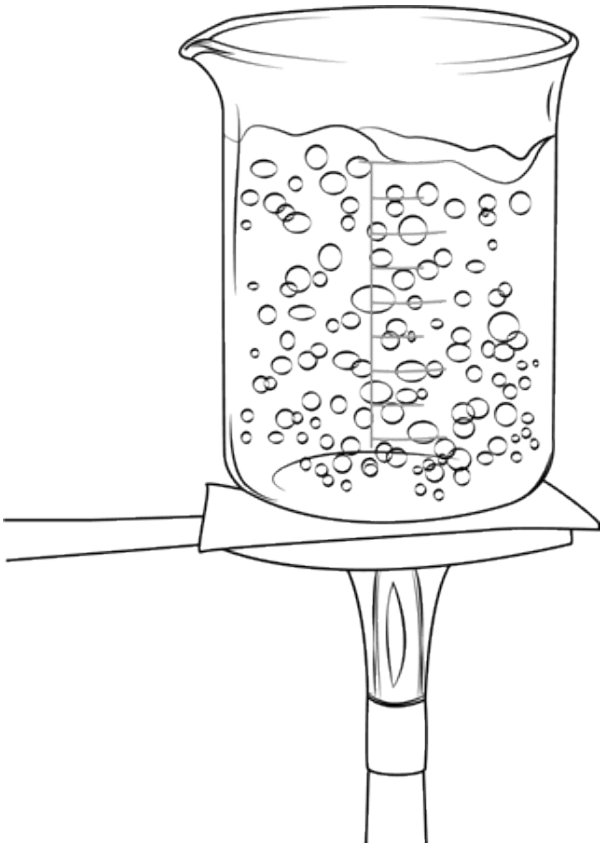
   A. combustion

   B. convection

   C. radiation

   D. conduction

7. **Although the heat source is at the bottom of the beaker, all of the water is the same temperature.**



What keeps the water at the top of the beaker the same temperature as that of the bottom?

   A. Heat from the burner radiates through the liquid and causes even heating.

   B. Evaporation heats the water at the top and the flame heats the water at the bottom.

   C. The walls of the beaker reflect heat toward the center, so the water heats evenly.

   D. Heated water molecules and steam rise in the beaker, carrying heat by convection.

8. **What is the original source of most of the energy that people use?**

   A. Energy that reaches Earth's surface by radiation from the Sun.

   B. Energy that reaches Earth's surface by convection from the Sun.

   C. Energy that reaches Earth's surface by radiation from Earth's core.

   D. Energy that reaches Earth's surface by conduction from Earth's core.

9. On very hot days, animals will often find a patch of dirt on the ground to lay in to keep cool. Which best explains how laying on the ground and dirt keeps the animal cool?

A. The coolness from the ground is transferred to the animals body, lowering the animals body temperature.

B. Dirt on the ground protects the animal from the heat in the air, lowering the animal's body temperature.

C. The animal's body temperature does not change, but the dirt makes the animal feel cooler.

D. Heat from the animals body is transferred to the ground, lowering the animal's body temperature.

10. Which ***best*** describes the flow of heat?

A. from a larger object to a smaller object

B. from a warmer object to a cooler object

C. from a cooler object to a warmer object

11. A student fills a bicycle tire with air on a very hot day. The next day, the temperature drops and it is much cooler. The student notices that the bicycle tire is almost flat. What ***best explains*** why the tire is flat?

A. The cooler temperature caused the air in the tire to contract, making the tire appear flat.

B. The cooler temperature caused the air in the tire to expand, which put a hole in the tire, causing it to go flat.

C. The cooler temperature caused the air in the tire to freeze, making the tire flat.

D. The cooler temperature caused the metal part of the bicycle to expand, putting a hole in the tire and making it go flat.

12. A student is trying to open a jar with a metal lid. The lid of the jar is very tight, and the student is not able to open it. The student puts the jar and lid under hot water, and then attempts to open it. The lid easily opens. Which best explains why the lid was easy to open after putting it under hot water?

A. The hot water melted the glue that was holding the lid shut, making it easier to open.

B. The hot water expanded the metal lid of the jar, making it easier to open.

C. The hot water caused the jar to contract, making the lid easier to open.

D. The hot water made it easier for the student to get a grip on the jar, so it was easier to open.

13. Jack needs soft butter to make cookies. Which is the ***best*** place to leave the butter so that it will soften?

A. freezer

B. counter top

C. refrigerator

14. Which ***best*** explains why a freezer would be made out of thick plastic?

A. to keep the cool air from escaping

B. to conduct cool air into the freezer

C. to heat the contents of the freezer

15. Which ***best*** explains why stainless steel is a good choice as a material to use when making pots and pans?

A. Stainless steel is a good insulator.

B. Stainless steel is a poor conductor of heat.

C. Stainless steel is a good conductor of heat.

16. It was very sunny outside, and Mike wanted to wear a shirt that would keep him cool. Which color shirt would be ***best*** for Mike to wear?

A. black

B. white

C. brown

17. Jim wakes up early in the morning and walks from his carpeted bedroom to the tiled kitchen. Which ***best*** describes why, despite being the same temperature, the tile floor feels cooler to his feet than the carpet?

A. Tile is a poor conductor of heat and transfers heat to his skin.

B. Carpet is a bad conductor of heat and transfers heat to his skin.

C. Tile is a better conductor of heat and transfers heat away from his skin.

18. Which ***best*** explains why a hot air balloon rises into the air?

A. As the air is cooled, it becomes more dense and the balloon rises.

B. As the air is cooled, it becomes less dense and the balloon rises.

C. As the air is heated, it becomes less dense and the balloon rises.

19. Lucy made an ice cream cake for a class party. She needs to store it on ice in a container until the party. Which material would be ***best*** to use as a storage container?

A. glass

B. metal

C. plastic

20. Why should Ann leave space at the top of her plastic bottle when filling with water and then freezing it overnight?

A. Water expands when frozen, so the water will need more space.

B. Water contracts when frozen, so the water will need more space.

C. Plastic contracts when frozen, so the water will need more space.

D. Plastic expands when frozen, so the water will need more space.