

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Heat Hero Challenges for Kindergarten

Can your students predict where the heat will hide? Young scientists will analyze heat flow and material changes in these challenging scenarios.

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**1. If you leave a cold popsicle and a warm cookie on a table in a sunny room, what will eventually happen to both of them?**

- A. They will both stay the same forever
- B. They will both become the same temperature as the room
- C. The popsicle will get colder
- D. The cookie will get warmer

**2. If you have a hot cup of cocoa, the heat energy can travel through the air to reach your cold hands without you touching the cup.**

- A. True
- B. False

**3. You place a metal spoon and a plastic spoon into a warm bowl of soup. Which spoon will feel the hottest to touch after one minute?**

- A. The plastic spoon
- B. Both will feel the same
- C. The metal spoon
- D. Neither will get warm

**4. Imagine you are wearing a black shirt and your friend is wearing a white shirt on a very sunny day. Why do you feel much hotter than your friend?**

- A. Dark colors soak up more heat from sunlight
- B. White shirts make their own ice
- C. Black shirts are always heavier
- D. The sun only shines on dark colors

**5. When you put an ice cube into a glass of warm water, the 'coldness' moves from the ice into the water.**

- A. True
- B. False

**6. If you hold a piece of chocolate in your hand, it melts. Where did the heat energy come from to make the chocolate change?**

- A. The air in the room
- B. Your warm body
- C. The floor
- D. The chocolate itself

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**7. A scientist wants to keep a cup of juice cold. Which material would be the BEST 'Heat Trapper' (insulator) to wrap around the cup?**

- A. Thin aluminum foil
- B. A thick wool sock
- C. A metal wire
- D. Wet paper

**8. If you rub your hands together very quickly, they will start to feel warm.**

- A. True
- B. False

**9. You have two bowls of soup. One is very hot and one is just warm. Which one will lose its heat to the cool air faster?**

- A. The very hot soup
- B. The warm soup
- C. They lose heat at the same speed
- D. Neither loses heat

**10. If a bird wants to stay warm during a snowy day, why does it fluff up its feathers?**

- A. To look bigger and scarier
- B. To trap a layer of air that keeps its body heat in
- C. To catch more snowflakes
- D. To make it easier to fly