Name: Date: Score: / 8

Heat vs Temperature: Learn and Practice

Same temperature, different energy

Read each question. Circle the best answer.

💡 Heat and Temperature

- Temperature measures the average motion energy of particles.
- Thermal energy is the total motion energy of all the particles. Heat is thermal energy on the move.
- A full bathtub and a small cup at the same temperature hold different amounts of thermal energy.
- bathtub and cup, both 40 degrees Celsius: bathtub has more thermal energy

1 What is heat?

A. Thermal energy moving between objects

B. How cold something is C. The color of fire

D. A type of matter

2 🥄 A hot spoon is placed in cold water. What happens over time?

A. Nothing changes B. The water gets colder

C. The spoon gets hotter

D. They reach the same temperature

3 Water freezes at what temperature in degrees Celsius?

A. 32 B. 100 C. 0 D. 10

4 🧊 When you hold an ice cube, which way does heat move?

A. From your hand to the ice

B. From the ice to your hand

C. From the ice to the air only

D. It does not move

5 🌡️ What tool measures temperature?

A. Thermometer B. Stopwatch C. Ruler

D. Balance

6 Which unit is often used for temperature in science?

A. Metres B. Degrees Celsius C. Litres

D. Grams

7 🛁 A bathtub and a cup of water are both 40 degrees Celsius. Which has more thermal energy?

A. They are equal B. The bathtub C. The cup

D. Neither

8 What does temperature measure about particles?

A. Their color B. Their average motion energy

C. Their mass D. Their total number

✏️ Explain it! Write two facts you learned about heat vs temperature.

ANSWER KEY

Heat vs Temperature: Learn and Practice (answers)

Same temperature, different energy

Read each question. Circle the best answer.

1 What is heat?

A. Thermal energy moving between objects

B. How cold something is C. The color of fire

D. A type of matter

Heat is energy flowing from a warmer object to a cooler one.

2 🥄 A hot spoon is placed in cold water. What happens over time?

A. Nothing changes B. The water gets colder

C. The spoon gets hotter

D. They reach the same temperature

Heat flows from spoon to water until both are the same temperature.

3 Water freezes at what temperature in degrees Celsius?

A. 32 B. 100 **C. 0** D. 10

Pure water freezes at 0 degrees Celsius.

4 🧊 When you hold an ice cube, which way does heat move?

A. From your hand to the ice

B. From the ice to your hand

C. From the ice to the air only

D. It does not move

Heat flows from warm to cold, so your hand warms the ice.

5 🌡️ What tool measures temperature?

A. Thermometer B. Stopwatch C. Ruler

D. Balance

A thermometer measures how hot or cold something is.

6 Which unit is often used for temperature in science?

A. Metres **B. Degrees Celsius** C. Litres

D. Grams

Scientists in Canada usually measure temperature in degrees Celsius.

7 🛁 A bathtub and a cup of water are both 40 degrees Celsius. Which has more thermal energy?

A. They are equal **B. The bathtub** C. The cup

D. Neither

Same temperature, but the bathtub has many more particles, so more total energy.

8 What does temperature measure about particles?

A. Their color **B. Their average motion energy**

C. Their mass D. Their total number

Temperature tells the average energy of motion of the particles.