Name _____

Heat vs. Temperature: Unlocking the Mystery of Energy

Multiple Choice Questions

1. What is the main difference between heat and temperature?

a) Heat measures hotness or coldness, while temperature measures energy.

b) Heat is a form of energy, while temperature is a measure of hotness or coldness.

c) Heat and temperature are the same thing.

d) Temperature measures the speed of molecules, while heat measures their arrangement.

2. When molecules in an object move faster, what happens to its temperature and thermal energy?

a) Both temperature and thermal energy increase.

b) Temperature increases, but thermal energy decreases.

c) Both temperature and thermal energy decrease.

d) Temperature decreases, but thermal energy increases.

3. Which unit is commonly used to measure temperature?

a) Joule

b) Calorie

c) Celsius

d) Watt

4. What is thermal energy, and how is it related to heat?

a) Thermal energy is the total energy of all molecules in an object due to their motion and arrangement, and heat is the transfer of thermal energy.

b) Thermal energy is a measure of how hot an object is, and heat is a measure of coldness.

c) Thermal energy and heat are the same thing.

d) Thermal energy measures the speed of molecules, and heat measures their total energy.

5. In which field is the understanding of heat and temperature crucial for designing systems like engines and refrigeration?

a) Medicine

b) Cooking

c) Thermodynamics

d) Weather forecasting