

# Temperature and Energy

Name \_\_\_\_\_

Date \_\_\_\_\_ Per. \_\_\_\_\_

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1. What is kinetic energy? \_\_\_\_\_ How are kinetic energy and temperature related?

2. How are thermal energy and temperature different?

3. What happens to the spacing between molecules if they move faster?

4. What happens to an object's size if it is heated? \_\_\_\_\_  
Explain why.

5. Ice cube A has a mass of 10 grams and has a temperature of 0 degrees C. Ice cube B has a mass of 20 grams and has the same temperature, 0 degrees C. Do both ice cubes have the same amount of thermal energy? \_\_\_\_\_ If not, which one has more?

6. In question #5 does one ice cube have more kinetic energy than the other? \_\_\_\_\_

7. Explain why when railroad track is laid, the track builders always leave a small gap between sections of track.

8. Why does the liquid move up and down in the neck of a thermometer?

9. The Celsius scale is used to measure temperature all over the world. Where is the Fahrenheit scale used? \_\_\_\_\_

10. What important physical event happens at a temperature of 0 degrees Celsius?  
\_\_\_\_\_ What about 0 Kelvin? \_\_\_\_\_ What  
about 0 degrees Fahrenheit? \_\_\_\_\_

11. Normal body temperature is 98.6 F. What is it in degrees Celsius? \_\_\_\_\_