

## Chapter 10 Thermal Energy Test

### Multiple Choice

Directions: Choose the best answer for each question or complete the question.

1. Temperature is a measure of the \_\_\_\_\_ of molecular motion.  
a. mass  
b. average kinetic energy  
c. potential energy  
d. thermal energy
2. The structure with the most degrees of freedom is \_\_\_\_\_.  
a. liquid  
b. solid  
c. gas  
d. plasma
3. Heat is the \_\_\_\_\_.  
a. amount of thermal energy in an object  
b. difference between the kinetic and potential energy  
c. energy of heat motion  
d. transfer of energy between two objects
4. A gas in a cylinder gets hot by expansion of \_\_\_\_\_.  
a. molecules  
b. particles  
c. volume  
d. molecules
5. Which is a higher quality thermal energy store? Water would \_\_\_\_\_ than oil.  
a. heat up faster  
b. heat up slower  
c. cool down faster  
d. cool down slower

### Completion

Complete each sentence.

1. The same particle temperature is \_\_\_\_\_ (the same, not the same).
2. Kinetic energy is the energy of motion. \_\_\_\_\_ (thermal energy, potential energy, heat).
3. Kinetic energy is the energy of motion. \_\_\_\_\_ (heat, work, energy, power, or temperature).
4. When you get your hand hot in a microwave oven, it really means it has received heat that has resulted from being \_\_\_\_\_ (heated, cooled, compressed).
5. If you add 100 cal of water at 10°C to 100 cal of water at 20°C, the average kinetic energy of the water \_\_\_\_\_ (increases, decreases, remains the same).
6. When 100 cal of water at 20°C is added to 100 cal of water at 10°C, the thermal energy \_\_\_\_\_ (increases, decreases, remains the same, is the same).
7. Temperature is a measure of the average kinetic energy of the \_\_\_\_\_ (heat, potential energy, kinetic energy, or particles).