

Changes of State

Name _____

1. What is energy?
2. Is energy required to slow down a moving object? _____
3. T or F: The faster an object is moving the more kinetic energy it has.
4. If you add up the amount of kinetic energy in every molecule of a cup of water, it will be a measure of the _____ of the water.
5. Which has the most thermal energy, a cup of ice water or the same amount of hot coffee?
_____ Why?
6. Why does a cold lake have more thermal energy than a cup of hot coffee?
7. In terms of kinetic energy, compare temperature to thermal energy.
8. When thermal energy is transferred from one object to another, that energy is called _____. He always flows in the direction for _____ temperature to _____ temperature.
9. Which object has molecules with the highest average kinetic energy, hot tea or ice tea?
10. At what temperature does ice melt? _____
11. Does butter have a melting point? _____ Why?
12. Is the freezing point of a substance the same as the melting point? _____
13. Water is cooled off until it freezes and the temperature then continues to drop. Does the temperature of the liquid water ever get below 0 deg. C? _____ Is it possible to have a block of ice that is at a temperature of 2 deg. C? _____
14. What is the boiling point for water? _____
15. What is the difference between boiling and evaporation?
16. When water forms on the outside of a cold glass, what is that process called?
17. Compare sublimation and crystallization.
18. What is the shape of a crystal of ice (like a snowflake)?
19. What is dry ice?