

1. An ice cube is put into a heated pan. What will most likely happen to the molecules in the ice as the ice is heated?
 - a. The molecules will begin to move slower.
 - b. The molecules will begin to move faster.
 - c. The molecules will begin to increase in density.
 - d. The molecules will begin to condense in the air.
2. What happens to water molecules during the boiling process?
 - a. They move faster and move farther apart as they absorb heat.
 - b. They move faster and remain close together as they absorb heat.
 - c. They move more slowly but move farther apart as they lose heat.
 - d. They move faster and move farther apart as they lose heat.
3. Which shows one example of a physical change and one example of a chemical change?
 - a. boiling water and melting wax
 - b. rusting iron and baking a cake
 - c. dissolving powder and shredding paper
 - d. freezing water and burning coal
4. Which is evidence that elements can combine to form new compounds?
 - a. melting a solid
 - b. freezing a liquid
 - c. moving a piece of metal with a magnet
 - d. pouring two liquids together to create a solid
5. Which best describes the physical change of an aluminum soda can after it is crushed?
 - a. There is a change in the mass of the can.
 - b. There is a change in the weight of the can.
 - c. There is a change in the volume of the can.
 - d. There is a change in the specific heat of the can.
6. Which is an example of a physical change?
 - a. boiling
 - b. burning
 - c. rotting
 - d. rusting
7. This table shows the specific heat of four substances.

Substance	Specific Heat (J/kg.C)
Lead	128
Iron	448
Glass	837
Ice	2,090

8. If each substance is exposed to the same amount of energy for one minute, which substance will get the hottest?

- a. Lead
- b. Iron
- c. Glass
- d. Ice

9. A beaker with 100 mL of water is placed on a hot plate and heated. The water boils at 100 degrees Celsius. At what temperature would 90 mL of water boil?

- e. 10 degrees Celsius
- f. 90 degrees Celsius
- g. 100 degrees Celsius
- h. 110 degrees Celsius