


**Directed Reading for  
Content Mastery**
**Section 2 ■ Properties of  
Matter**

**Directions:** Complete the paragraphs using the terms listed. Some terms may be used more than once.

liquid                      physical change                      chemical change                      mixture  
 physical properties                      physical property                      distillation  
 equals                      melting                      conservation of mass

Scientists try to explain how changes in substances take place. By applying energy, you can tear a sheet of paper into pieces and cause a 1. physical change in the paper. On a hot summer day, water vapor will condense into water droplets on the outside of a glass of iced tea. The glass of iced tea is a 2. mixture of sugar, tea, lemon, and water. Water is a clear, colorless 3. liquid at room temperature. The words *clear* and *colorless* describe two 4. physical properties of water. The melting of the ice in iced tea is a 5. physical change.

In comparison, a 6. chemical change produces new substances. When a candle burns, physical and chemical changes take place. The 7. melting of the wax is a physical change. The melted wax, as it burns, combines with gaseous oxygen in air. After the chemical change, water vapor and carbon dioxide gas are formed. The mass of all substances before a chemical change 8. equals the mass of all substances after a chemical change. This is called the law of 9. conservation of mass.

To separate a solid from a liquid, such as salt from seawater, a process using the 10. physical property of boiling point called 11. distillation is used.