1. What are physical properties of matter?
   1. A characteristic of a substance that can be observed without changing the identity of the substance is called a **physical property**.
   2. All of the senses can be used to observe physical properties.
   3. Mass and volume are physical properties.
   4. Changing the mass or volume of a substance does not change the substance’s identity.
   5. The state of matter is a physical property. The state of matter is the physical form of the matter.
   6. Most matter exists as a solid, liquid, or gas.
   7. Electrical conductivity is a measure of how well electric currents move through a substance.
   8. Density is the measure of the amount of matter in a given volume.
   9. Thermal conductivity is the rate at which a substance transfers heat.
   10. Solubility is the ability of a substance to dissolve in another substance.
   11. Malleability is the ability of a substance to be rolled or pounded into various shapes.
   12. Magnetic attraction is also a physical property that can be observed.
   13. The shine, or luster, of a metal can be easily observed.
   14. The melting point of a substance is the temperature at which it changes from a solid to a liquid.
   15. The boiling point of a substance is the point at which the substance boils.
2. What are chemical properties of matter?
   1. A **chemical property** describes the ability of a substance to change into a new substance with different properties.
   2. The ability to rust or tarnish is a chemical property. When a metal rusts or tarnishes, it changes to a different substance.
   3. Chemical properties can be identified by the changes they produce.
   4. Flammability is the ability of a substance to burn.
   5. Reactivity is the ability of a substance to interact with another substance and form one or more new substances.
3. What is the difference between physical and chemical properties?
   1. Physical properties can be observed without changing the identity of a substance.
   2. Chemical properties can be observed only by changing the identity of a substance.
4. How can physical and chemical properties identify a substance?
   1. Properties unique to a substance are its *characteristic properties.*
   2. Characteristic properties stay the same regardless of the amount of the sample.
   3. Characteristic properties can be physical properties or chemical properties.