

**CHAPTER 14 STUDY GUIDE**

## Mixtures and Solutions

### Section 14.1 Heterogeneous and Homogeneous Mixtures

*In your textbook, read about suspensions and colloids.*

For each statement below, write *true* or *false*.

- \_\_\_\_\_ 1. A solution is a mixture containing particles that settle out of the mixture if left undisturbed.
- \_\_\_\_\_ 2. The most abundant substance in a colloid is the dispersion medium.
- \_\_\_\_\_ 3. A colloid can be separated by filtration.
- \_\_\_\_\_ 4. A solid emulsion consists of a liquid dispersed in a solid.
- \_\_\_\_\_ 5. Whipped cream is an example of a foam.
- \_\_\_\_\_ 6. In an aerosol, the dispersing medium is a liquid.
- \_\_\_\_\_ 7. Brownian motion results from the collisions of particles of the dispersion medium with the dispersed particles.
- \_\_\_\_\_ 8. Dispersed particles in a colloid do not tend to settle out because they have polar or charged atomic groups on their surfaces.
- \_\_\_\_\_ 9. Stirring an electrolyte into a colloid stabilizes the colloid.
- \_\_\_\_\_ 10. Colloids demonstrate the Tyndall effect.

The table below lists the characteristics of particles in colloids, solutions, and suspensions. Place a check in the column of each mixture whose particles have a particular characteristic.

Characteristics of Particles	Colloid	Solution	Suspension
11. Less than 1 nm in diameter			
12. Between 1 nm and 1000 nm in diameter			
13. More than 1000 nm in diameter			
14. Settle out if undisturbed			
15. Pass through standard filter paper			
16. Lower vapor pressure			
17. Scatter light			