**Activity 28: Solutions, Colloids, and Suspensions**

***Learning Objectives***

*Distinguish solute and solvent*

*Distinguish solution, colloid, and suspension*

**Estimated Completion Time** 20 Minutes

**Instructor Information**

This activity offers the basic start to understanding what is a solution and what is not. Often it is difficult to distinguish between a colloid and a suspension; this is not an emphasis of the activity. Instructors may wish to offer supplemental problems on this topic.

**ANSWERS TO QUESTIONS**

1. Solute: O2; Solvent: N2

Solute: ethanol; Solvent: Water

Solute: tea compounds; Solvent: Water

2. Solution: grape juice, air in the room

Colloid: shaving cream, mayonnaise

Suspension: Italian salad dressing, muddy water, blood

**Activity 28: Skill Development**

1. a. Solute: sugar; Solvent: water

b. Solute: zinc; Solvent: copper

c. Solute: blue food coloring; Solvent: ethanol

2. a. Solute: O2; Solvent: He

b. Solute: herbs; Solvent: alcohol

c. Solute: isoflurane; Solvent: O2

3. a. colloid b. solution c. solution

4. a. colloid b. solution c. solution