**Activity 29: Electrolytes, Nonelectrolytes, and Weak Electrolytes**

***Learning Objective***

*Distinguish electrolytes, nonelectrolytes, and weak electrolytes and their characteristics*

**Estimated Completion Time** 20–30 Minutes

**Instructor Information**

A demonstration of tap water versus distilled water with a simple conductivity apparatus works well as a demonstration with this activity to reinforce the concept. Depending on geographic location and apparatus, some tap waters will conduct more than others.

**ANSWERS TO QUESTIONS**

1. a. Yes. Tap water contains dissolved ions that have ionic charges present.

b. No. There are only partial charges (dipoles) in pure water (at this point students have not been introduced to autoionization of water).

2. a. Dissociate; strong electrolyte

b. Not dissociate; nonelectrolyte

c. Partially dissociate; weak electrolyte

**Activity 29: Skill Development**

1. a. Dissociate

b. Not dissociate

c. Partially dissociate

2. a. Partially dissociate; weak electrolyte

b. Not dissociate; nonelectrolyte

c. Dissociate; strong electrolyte