

## Thought Lab 7.1: Smoking and the Respiratory System

**Purpose:** Add to your understanding of body systems by conducting research to explore the effects of smoking on the respiratory and other body systems.

### Procedure

Working alone or in small groups, plan a public-awareness product such as a poster, pamphlet, or multimedia presentation. Decide what audience your public-awareness product will address. Use your knowledge of the path of inhaled smoke through the respiratory system in your project. Make sure your research answers the following questions.

- By law, which chemicals in tobacco smoke must be listed on tobacco products? In what concentrations are they present, and what are their effects? (For example, ammonia is a chemical found in cigarette smoke in concentrations ranging from 50 to 130  $\mu\text{g}/\text{cigarette}$ . Ammonia is a fatal poison in large-enough amounts in the body.)
- What other chemicals are found in tobacco smoke? List at least five, and give their concentrations and effects.
- How can tobacco chemicals appear in other body organs such as the bladder, heart, and reproductive organs?
- What are examples of long-term and short-term effects of smoking?
- In what ways is tobacco smoke particularly harmful for women who are pregnant?
- What technologies are available to assist people who choose to quit smoking?

### Analysis

1. List three harmful effects of smoking on the respiratory system and three harmful effects on other body systems.

