Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Section \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Lesson 3: Analyzing a Mass Spectrogram**

The graph created when a sample is run through a mass spectrometer is unique for each compound. Scientists can use the graph and a reference library of graphs to identify unknown substances. Are you ready to be tested on your ability to detect an unknown substance?

**Doing the Science**

1. Start the Mass Spectrometry Simulation by clicking on the “Sim” tab.
2. Click the “Test Mode” button.

3. Answer all of the on-screen questions and identify the sample spectrograph presented in the question bank.

**Do You Understand?**

1. How successful were you in answering all of the questions presented in the Test? Discuss why you were or were not successful.

2. Why does a scientist who uses a mass spectrometer to identify a substance need a reference library of spectrographs?

3. What are some ways that you could identify an unknown substance if you did *not* have access to a mass spectrometer?