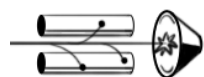


Name _____ Section _____ Date _____



Mass Spectrometry

STEM Sims

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?