

Mars for Earthlings

LESSON 3: Missions to Mars***In-Class Activity 1******Measuring “the tiny”***

Purpose: Determine a method to detect elements of interest (water and/or life-indicating) on Mars and become familiar with mass spectrometer devices on Mars-bound missions.

The Periodic Table

1. Find the elements carbon, potassium, and oxygen on the periodic table provided by your instructor. How are they different, and how are they the same?

What are the measureable attributes of these elements?

Measuring “the tiny”

1. With a few other students, devise a method to measure the amount of these elements in the rock provided.
 - a. What exactly do you need to measure? The charge? The mass? The weight?
 - b. Do you want the rock to remain a solid for measurement? Why or why not?
 - c. List your method in at least (3) steps.



