**Spectroscopy and Astronomy**

Download the article entitled “Spectroscopy and Astronomy” from Unit 2 of the Earth Science Class website. Read it with care and with love. And as you do, answer the following questions:

1) What does the statement “Scientists hope to use spectral analysis to decode the chemicals found in a planet’s atmosphere” mean? What is spectral analysis, and how is it related to sections 1 and 2 above?

This statement from the reading is super-duper extra important:

*Because every element and all compounds produce unique patterns (of colors and wavelengths), scientists can identify what chemicals exist in a planet’s atmosphere by looking at the patterns that are produced.*

2) How does this ability to identify chemicals in distant planets help scientists to answer the question of whether or not there might be life on other planets?

3) Which particular chemicals and elements would provide scientists with the best evidence that life might be present on a planet? Why?

Follow the link below to an interactive website entitled “Decoding Cosmic Spectra”. Launch the interactive and then practice using spectroscopy to identify the chemicals found in various celestial objects.

<http://www.pbs.org/wgbh/nova/space/decoding-cosmic-spectra.html>