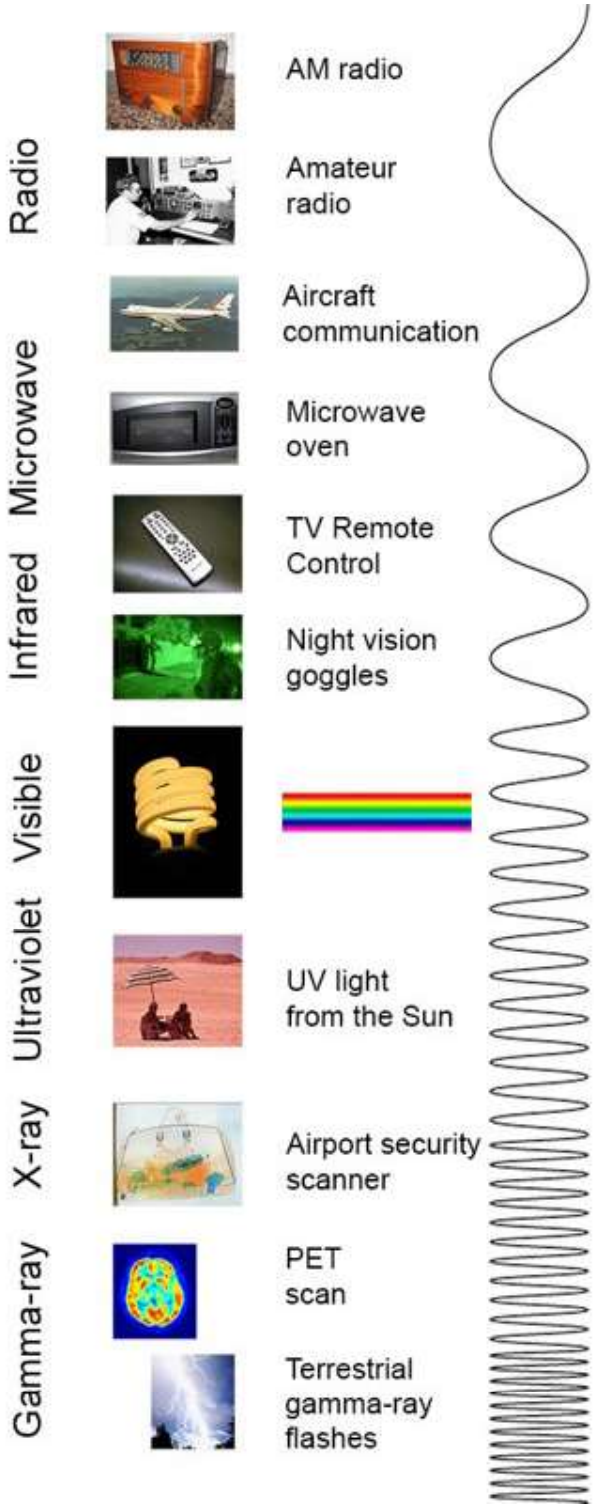
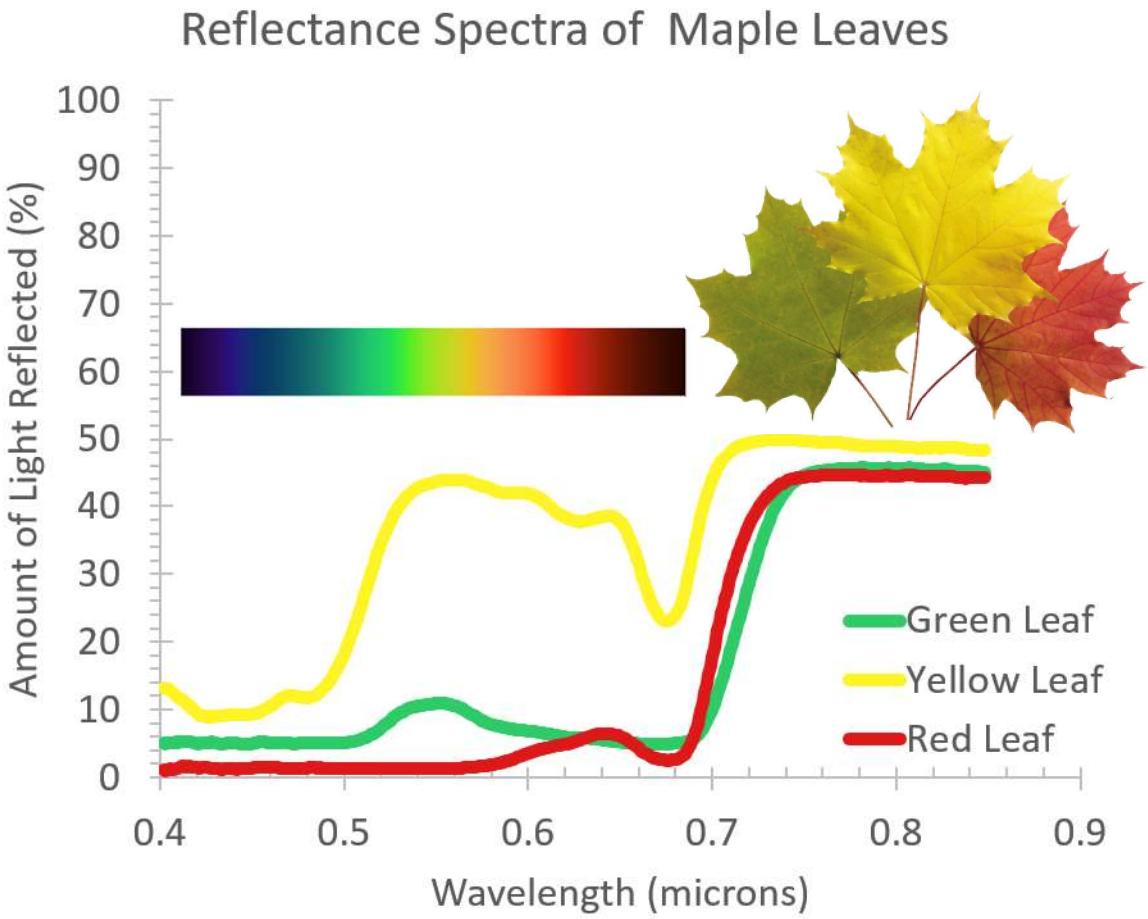
Activity 3 Electromagnetic Spectrum



Note: You might know more about the electromagnetic spectrum than you think! This image shows some of the ways that people use or experience different waves in the electromagnetic spectrum.

Image credit: NASA

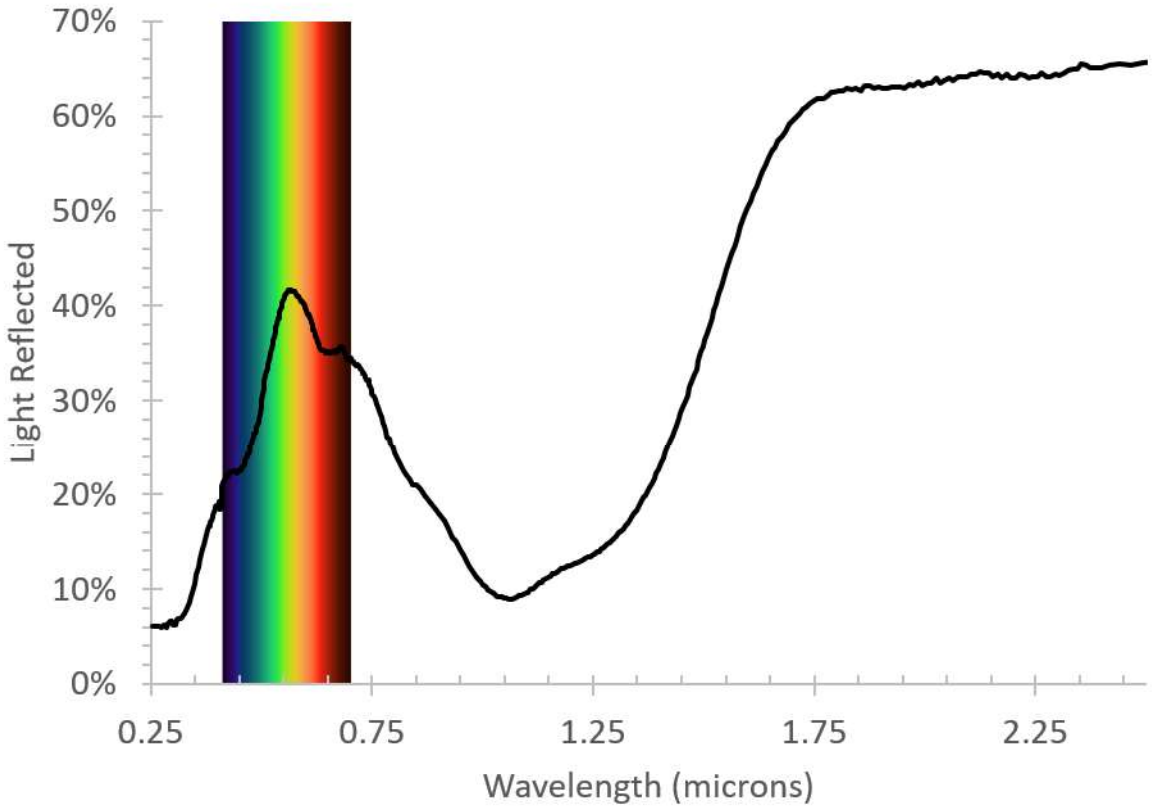
Activity 3 Maple Leaf Spectra



The image above shows reflectance spectra for red, yellow, and green maple leaves.

Do you think you could tell which line represents the data for each leaf, even without the pictures and labels, just by looking at the spectra? How would you know?

Activity 3 What Color is Olivine?



The image above shows the reflectance spectrum of a mineral called olivine. Compare the data you see here to the reflectance spectra of maple leaves on the previous page.

Based on what you know about light and color and the data you see here, what color do you think the mineral olivine is? Why?

Activity 3 Sites With Minerals

Compare the spectra for each site to the Mineral Fingerprinting Data Sheet. Write the names of the minerals found at each site in the chart below. Then, rank the sites based on the number of water-related minerals the rover could access (1 = most minerals, 4 = fewest minerals).

Mars Site	Minerals Found	Ranking
Gale Crater		
Iani Chaos		
Jezero Crater		
Nili Fossae		

Which site do you think has the most minerals? Why do you think so?