



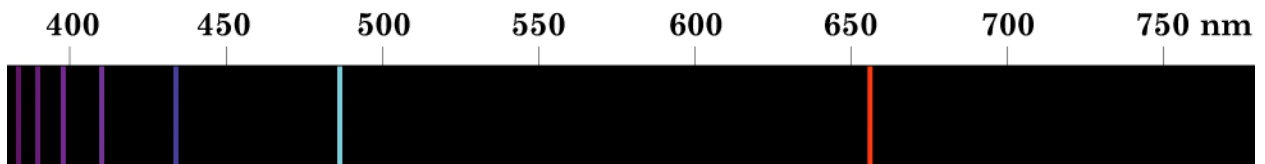
## LESSON PLAN: STELLAR FINGERPRINTS: THE SPECTRA OF STARS

Activity Sheet 3

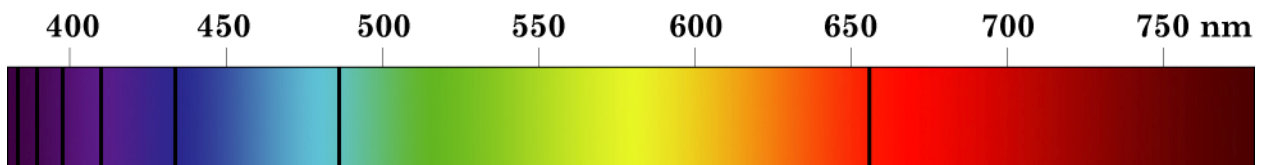
Name \_\_\_\_\_

### Comparing Emission and Absorption Spectra

#### Hydrogen Emission Spectrum



#### Hydrogen Absorption Spectrum



Adapted from <http://www.efg2.com/Lab/ScienceAndEngineering/Spectra.htm>

1. After studying the emission and absorption spectra for hydrogen, predict the absorption spectrum for element X given the following emission spectrum. Use the space provided below the emission spectrum to draw your predicted absorption spectrum.

#### Emission Spectrum for Element X



#### Predicted Absorption Spectrum for Element X



