

## *Astro-Madness: Introduction*



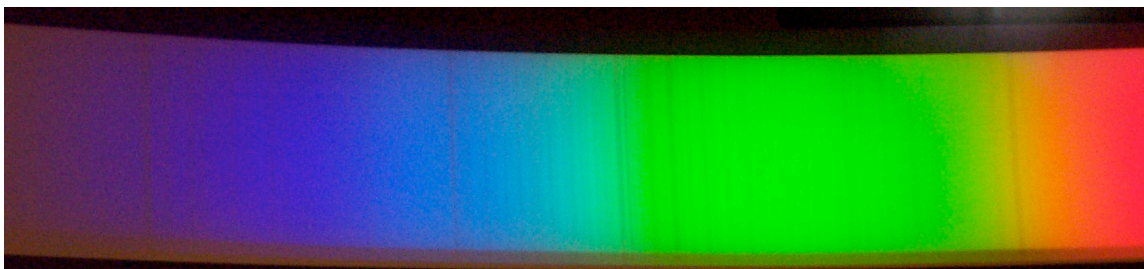
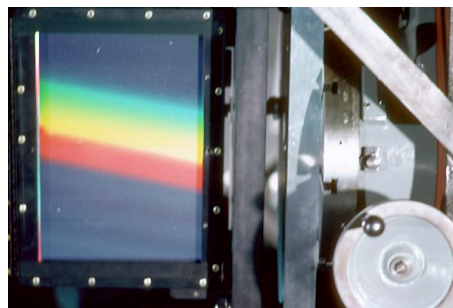
In this activity, you are going to learn about the different telescopes and instruments that are available at the McDonald Observatory using the “What Are Astronomers Doing” WWW site: (<http://mcdonaldobservatory.org/research/>). You will then use this information to assist a group of scientists in deciding which of McDonald Observatory’s resources will best suit their projects.

First, research the telescopes at McDonald Observatory: the 0.8 m Telescope, the Otto Struve Telescope, the Harlan J. Smith Telescope, and the Hobby-Eberly Telescope.

For each of these telescopes, consider information like the diameter of the mirror, what the mirror is made of, and any other facts you think you would need to know. Write this information into the Telescope Information table.

Next, learn about the different instruments. Some instruments can only be used on certain telescopes. You should also look at what the instrument will produce, like pictures or spectrograms. Write this information into Instrument Information table. As you are exploring the instruments, consider the following questions:

- What light detector is most common in these instruments?
- Where in the electromagnetic spectrum are the instruments sensitive?
- How is a spectrum or spectroscopy (how astronomers study the spectrum) involved?



Finally, figure out what telescope and instrument(s) would work best for the scientists and their projects. Write this information into the Telescopes & Instrument Recommendations table. You will need to refer to the Telescope Information and Instrument Information tables for this information.