

Looking at the stars

Engineer's Workbook

Engineer's Name: _____

Date: _____

Bring the tables and colored pencils to the light sources around the room and complete the table below.

| Light Source Description | Color with Naked Eye | Draw Spectrum |
|--|----------------------|---------------|
| Light bar: White | | |
| Light bar: blue | | |
| Light bar: Red | | |
| Light bar: Green | | |
| Candle | | |
| Neon Bulb | | |
| Sun (indirect way) Warning! Do not look directly to the sun | | |
| Other: | | |

Note: Make extra copies of this table and replace light sources for extra available light sources.

Questions for Reflection

| | |
|---|--|
| <p>If a spectrograph is a special tool that shows us what light is made from, what do you think makes up the light emitted by the sun?</p> | |
| <p>Do you think that there are kinds of light that cannot be seen with the naked eye?</p> | |
| <p>If light exists that cannot be seen, how might it be possible to observe it?</p> | |
| <p>Does the spectrum of any of the lights change if you move farther away or closer to it? Explain.</p> | |
| <p>What do you notice about the spectrum of individual-colored lights? How do the different colored light's spectra compare to one another?</p> | |
| <p>Which spectra look exactly the same?</p> | |
| <p>Which spectra look similar, but are not necessarily exactly the same? Explain your answer.</p> | |
| <p>Write your observations based on the sources that your group explores.</p> | |