

HR Diagram Explorer Worksheet

Open the **HR Diagram Explorer**. Begin by familiarizing yourself with the capabilities of the Hertzsprung-Russell Diagram Explorer through experimentation.

- An actual **HR Diagram** is provided in the upper right panel with an active location indicated by a red x. This active location can be dragged around the diagram. The **options panel** allows you control the variables plotted on the x-axis: (temperature, B-V, or spectral type) and those plotted on the y-axis (luminosity or absolute magnitude). One can also show the main sequence, luminosity classes, isoradius lines, or the instability strip. The **Plotted Stars** panel allows you to add various groups of stars to the diagram.
- The **Cursor Properties** panel has sliders for the temperature and luminosity of the active location on the HR Diagram. These can control the values of the active location or move in response to the active location being dragged. The temperature and luminosity (in solar units) are used to solve for the radius of a star at the active location.
- The **Size Comparison** panel in the upper left illustrates the star corresponding to the active location on the HR Diagram. Note that the size of the sun remains constant.