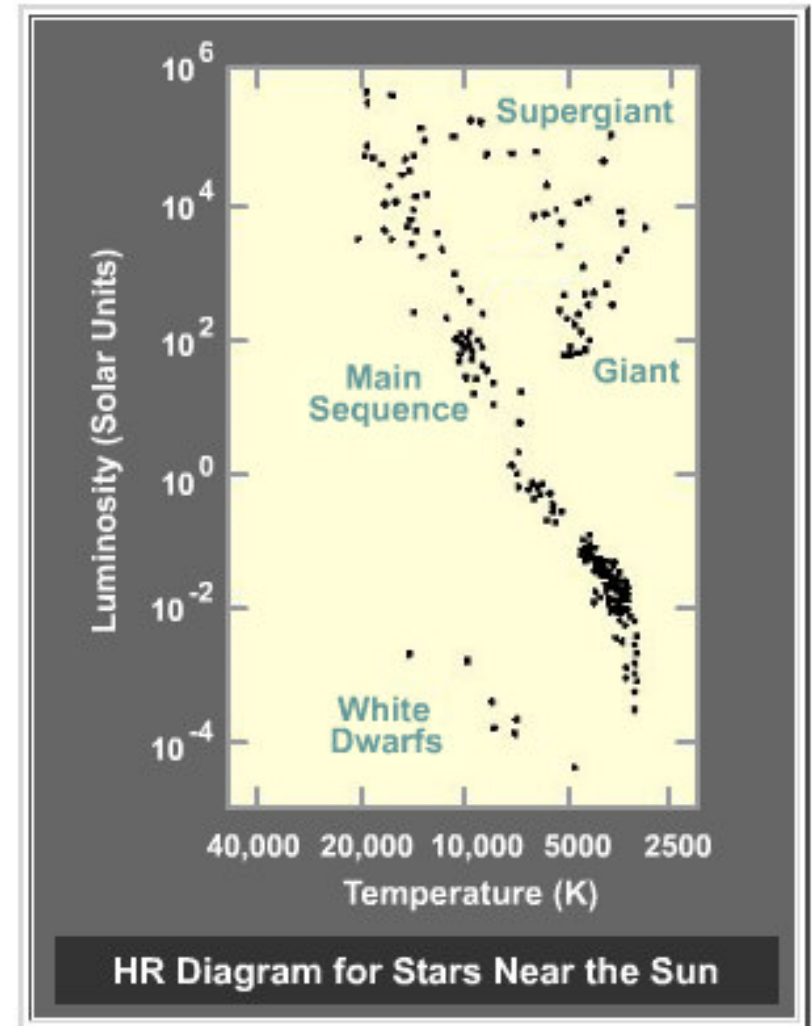
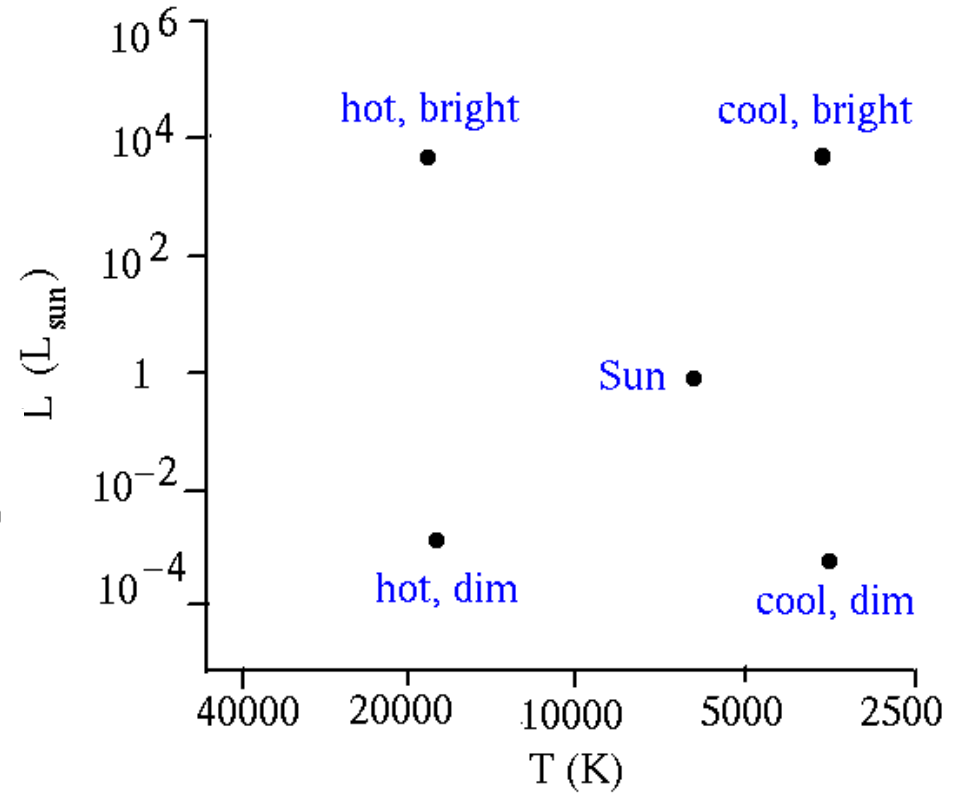
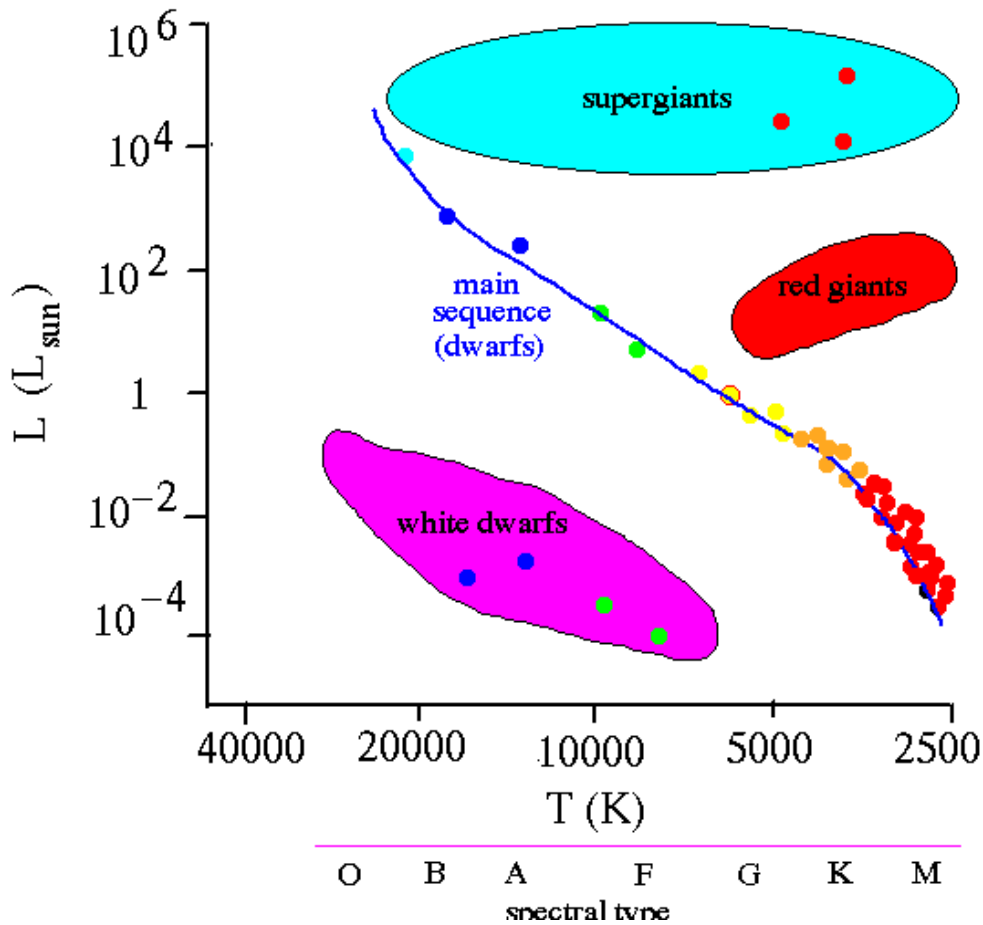


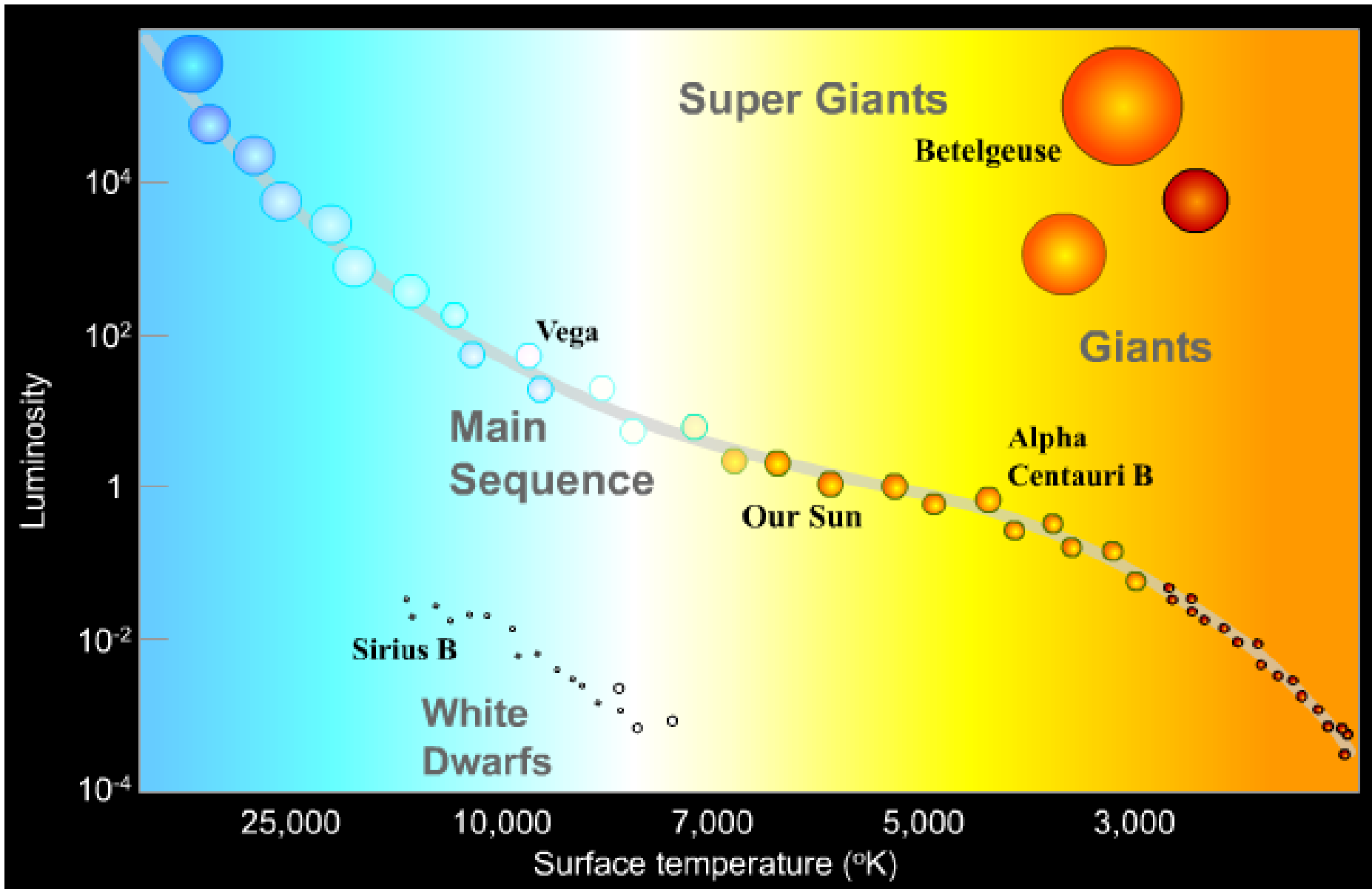
The Hertzsprung–Russell Diagram

- The **Hertzsprung–Russell diagram** (H-R diagram) is a scatter graph of stars showing the relationship between the stars' luminosity, versus their classifications and their temperatures.
- H-R diagrams are ***not*** pictures or maps of the locations of the stars. Rather, they plot each star on a graph measuring the star's brightness against its temperature and color.



- HR diagrams, plot luminosity in solar units on the Y axis and stellar temperature on the X axis, as shown.





- About 90% of the known stars lie on the Main Sequence.
- An O-star is the hottest while an M-star is the coolest. The Sun is a G-star.
- **Luminosity:** A value of 1 means that the star is as bright as our own Sun. The range shown in this figure covers stars which are over 10,000 times brighter than the Sun to stars which are 10,000 times fainter than the Sun.

Note: the more negative the Absolute Magnitude, the brighter the star. The more positive, the dimmer the star.

