

Star Classes

This table gives the star class, color, mass, and size for **main sequence** stars. Most of the real sizes in the table represent a star in the middle of each class. The G class star shown is our sun, which is brighter and larger than the middle of the G class for main sequence stars.

Instructions:

Complete the following size table for classes of main sequence stars using a 1:10 billion scale. Determine a real life object that could be used to represent that star on our scale.

| Class | Color | Mass* | Size | Scale Size | Model Object |
|--------------|--------------|------------------------|-----------------|-------------------|---------------------|
| O | Blue White | 40 x M _{Sun} | 1300 billion cm | | |
| B | Blue White | 6.5 x M _{Sun} | 430 billion cm | | |
| A | White | 2.1 x M _{Sun} | 300 billion cm | | |
| F | Yellow White | 1.3 x M _{Sun} | 180 billion cm | | |
| G | Yellow | M _{Sun} | 140 billion cm | 14 cm | |
| K | Orange | 0.7 x M _{Sun} | 100 billion cm | | |
| M | Red | 0.2 X M _{Sun} | 30 billion cm | | |

*M_{Sun} is the mass of the Sun.

The mass of the Sun is 2,000,000,000,000,000,000 trillion kilograms!