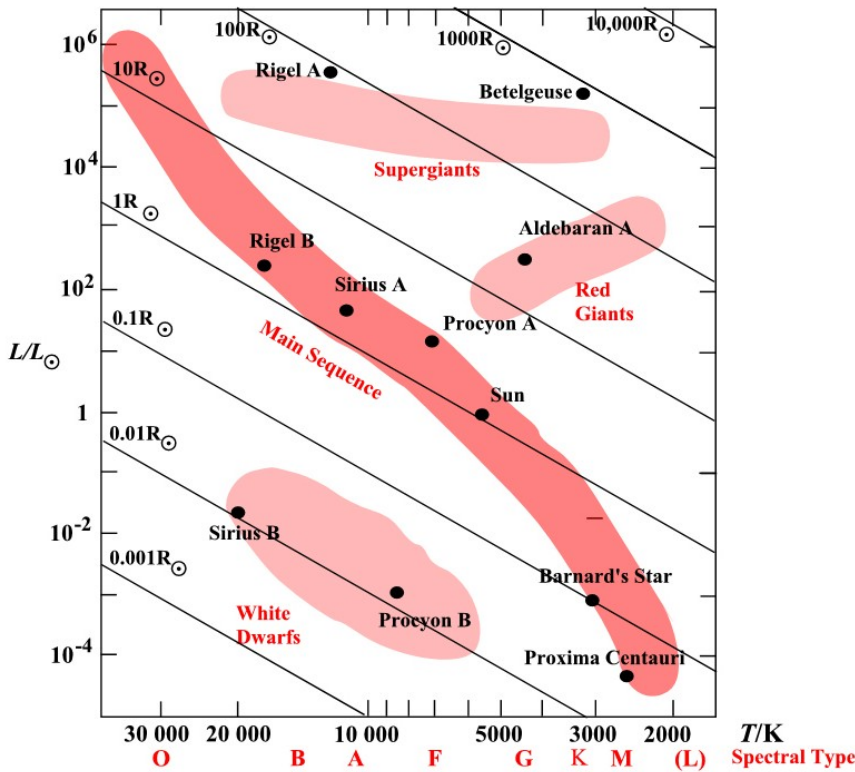




## Hertzsprung, Russell and the Main Sequence

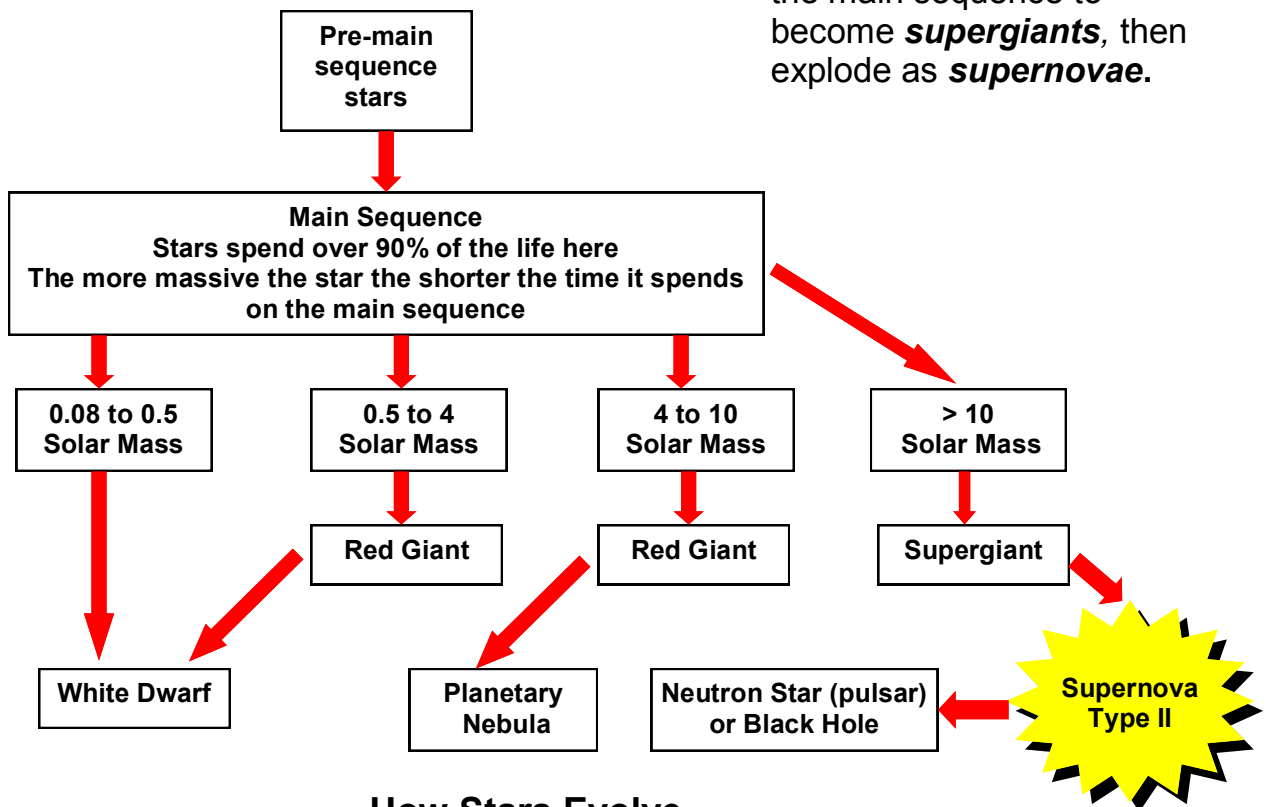


The luminance and surface temperature of a star, when plotted on the diagram, determine the star's position. Most stars live most of their lives on the **Main Sequence**.

When normal-sized stars reach the end of their lives, they become bigger, brighter and cooler and their plotted position moves off the main sequence to the **red giant** phase, where they stay for a relatively short time, then throw off most of their mass as a planetary nebula and become **white dwarfs**.

Bigger stars have much shorter lives then move off the main sequence to become **supergiants**, then explode as **supernovae**.

The Hertzsprung—Russell Diagram



How Stars Evolve