

High-Mass Star Life Cycle

All stars start as a _____. A stellar nebula is a large cloud of gas and dust. Gravity can pull some of the gas and dust in a stellar nebula together. A contracting cloud is then called a _____. A protostar is the earliest stage of a star's life. A star is born when the gas and dust from a stellar nebula becomes so hot that fusion starts. Once a star has "turned on", it is known as a _____. When a main sequence star begins to run out of hydrogen fuel, the star becomes a _____. After the high-mass star has become a red supergiant, it will eventually convert carbon into iron, run out of fuel, and explode. The explosion is called a _____. After the star explodes, some of the material from the star is left behind. This material may form a _____. The most massive stars become _____ when they die. The gravitational pull of the large amount of mass that remains is so strong that it pulls all nearby materials into its core. Eventually, the gravity becomes so strong that nothing can escape, not even light.

