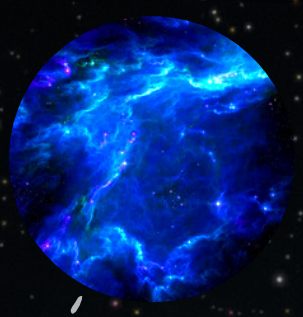
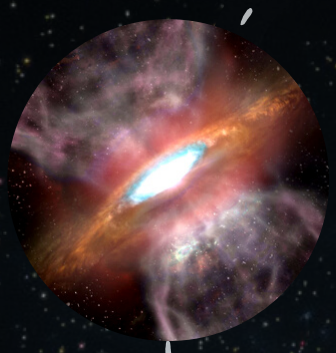
LIFE CYCLE OF STAR

THE JOURNEY OF A STAR FROM GAS TO BLACKHOLE

1 Giant Gas Cloud

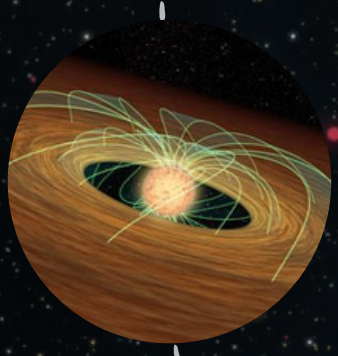
A star originates from a large cloud of gas. The temperature in the cloud is low enough for the synthesis of molecules.





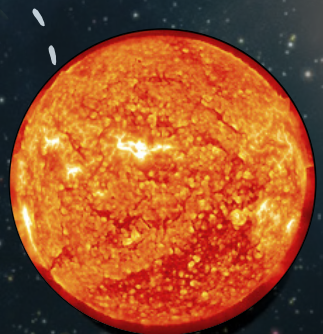
2 Protostar

When the gas particles in the molecular cloud run into each other, heat energy is produced. This results in the formation of a warm clump of molecules referred to as the Protostar.



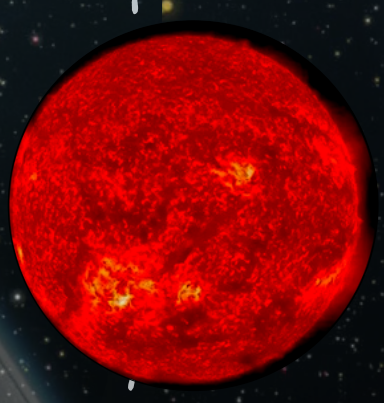
3 T-Tauri phase

A T-Tauri star begins when materials stop falling into the Protostar and release tremendous amounts of energy. The mean temperature of the Tauri star isn't enough to support nuclear fusion at its core.



4 Main Sequence

The main sequence phase is the stage in development where the core temperature reaches the point for the fusion to commence. In this process, the protons of hydrogen are converted into atoms of helium



5 Red Gaint

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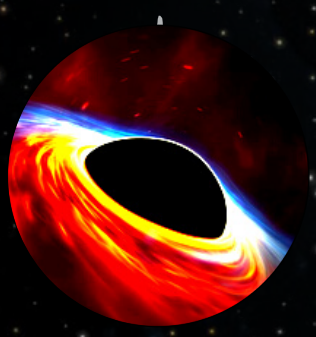
6 Supernova

A supernova is a powerful and luminous explosion of a star. A supernova occurs during the last evolutionary stages of a massive star or when a white dwarf is triggered into runaway nuclear fusion. The original object, called the progenitor, either collapses to a neutron star or black hole



7 Black Hole

A black hole is a region of spacetime where gravity is so strong that nothing, including light or other electromagnetic waves, has enough energy to escape its event horizon. The theory of general relativity predicts that a sufficiently compact mass can deform spacetime to form a black hole