

The beginning of a star

The Pillars of Creation – part of the Eagle Nebula - A Stellar Nursery

The key component of stars is _____

What does Gravity have to do with the beginning of star?

Protostar:

Thermonuclear fusion:

Main Sequence:

Red Dwarf stars

Blue Main Sequence

The fundamental thing that determines the length of a star's lifetime is _____

Larger stars = _____ lifetime Smaller stars = _____ lifetime

Why is this relationship true?

Life on the main sequence can only last as long as there is _____

When fuel runs out, gravity _____ and star will start to _____.

Larger stars = _____ Smaller stars = _____

Lower to medium mass stars like our Sun:

Planetary Nebula:

White Dwarf:

Supernova:

Type 1A: A thermonuclear runaway:

Type 2:

What do these supernovas have to do with you, your body and the Earth?

Neutron Stars:

Black Holes:

3rd type of supernova SN 2006GY

Collisions of Stars:

It is hard to see these in telescopes (they look like a blob of light) so computer simulations are used to study these.

Blue Stragglers:

Why are there blue stragglers in globular clusters?

Brown Dwarfs:

Make some kind of graphic or flow chart showing the stages of stellar evolution, from the beginning to the end. Be sure to show how different mass stars (low mass, medium mass, high mass, higher mass) follow different paths.