



## The Story of Stars 3D

KS2 / KS3 / KS4 / Post 16 / Adult Learners; duration: 30 minutes; presenter-led

Discover famous constellations, unveil the secret lives of stars, and discover the fate of our Sun!

### Key Words:

Space. Stars. Supernova. Nebula. Black Holes. Pulsars. Constellations.

### Learning objectives. Students will:

Follow the life cycle of stars. Their birth, death, and rebirth.

Appreciate that, although our lives are short in comparison to those of stars, we can still understand them and our connection to them.

Learn how to find famous constellations in the night sky. Orion, Canis Major, Taurus.

Learn that young stars form in a nebula, like the Orion Nebula.

Learn that our Sun is a main sequence star and that stars like our Sun get their energy from nuclear fusion.

Learn that most stars are low mass stars like our Sun and will one day become white dwarf stars surrounded by vented outer layers of material.

Learn that high mass stars will go supernova, leaving either a black hole or a neutron star surrounded by a supernova remnant.

Learn that material blasted away from high mass stars or material that's drifted away from low mass stars will form new clouds of gas and dust, from which new stars and planets will form.

### Content:

The night sky from Bristol

Constellations: Orion the Hunter, Canis Major the Hunting Dog, Taurus the Bull

The Orion Nebula

Red giants and planetary nebulae

Supernovae

Black holes & neutron stars

The life cycle of stars

### Curriculum Links:

KS3 Space Physics

Our Sun as a star, other stars in our galaxy, other galaxies

The light year as a unit of astronomical distance.

KS4 Atomic Structure

Nuclear fission, nuclear fusion and our Sun's energy.

### Potential Hazards and Accessibility

There are no potential hazards associated with this show.

### Related activities

**Exhibits:** Ground floor exhibits under the theme '*Is there another me in the Universe*'.

**Workshops:** Earth, Sun, & Moon, KS2 Destination Space.