



A dying star provides the spark to light our Sun

Transcript: Video clip from *Wonders of the Solar System*, episode two.

SCIENCE PRESENTER BRIAN COX:

Everything that we know and see around us was formed from a nebula – a giant cloud of gas and dust. Drifting across light years of space, that cloud remained unchanged for millions of years. But then something happened that caused it to coalesce into the Solar System we have today.

It's thought that a supernova, the explosive death of a nearby star, sent shockwaves through the nebula. This caused a clump to form in the heart of the cloud. Because it was more dense its gravitational pull was stronger and it started to pull in more and more gas. Soon the whole cloud was collapsing and crucially it began to spin.

While gravity caused the nebula to contract its conserved spin gave rise to a force that balanced the inward pull of gravity and allowed a stable disc to form. When the Sun ignited it lit up this spinning disk. And within the disk the planets formed all orbiting the Sun in their regular clockwork patterns.