

## Episode 703: Preparation for cosmology topic

Cosmology is the study of the Universe, its origins, history and possible future.

Ancient cosmologies took the Earth (and humanity) as central; as our understanding has advanced, the Earth and its inhabitants seem more and more insignificant.

Here you will be dealing with some of the big questions of science, questions that people have raised for millennia.

**Episode 704: The expanding universe**

**Episode 705: Cosmology**



M1 – the Crab nebula

### Advance warning

This is an area in which there is still a ferment of conflicting ideas. It is useful if you can get some of this across to your students, rather than presenting them with a neat, no-loose-ends version of the scientific truth.

It is worth making an effort to keep up-to-date by reading magazines such as *New Scientist*, *Scientific American* etc. Encourage your students to do the same.

The Particle Physics and Astronomy Research Council is a good source of booklets and posters: <http://www.pparc.ac.uk/Ed/pubs.asp>

### Main aims

Students will:

1. Describe the evidence for the expansion of the Universe.
2. Relate this to other evidence that the Universe originated in a hot Big Bang.

### Prior knowledge

Students should know that light from astronomical objects is often red-shifted, and that this can be interpreted in terms of movement of the source.

### Where this leads

Even if your students are not going to become professional cosmologists, this is a topic that many will want to read about in the future, so you will be doing them a great favour if you can kindle their interest at this stage.