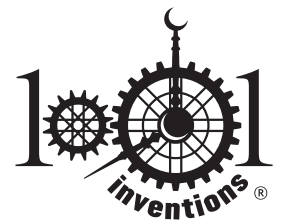
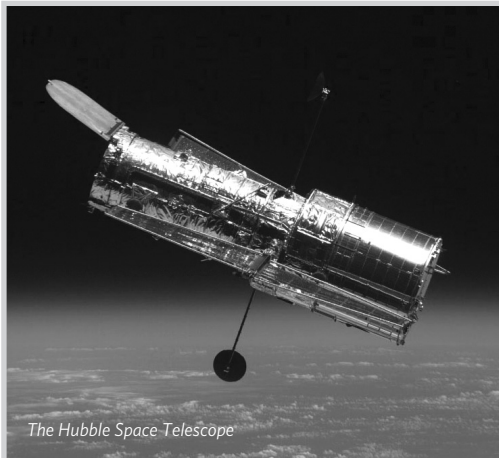


1A Universe



Have you ever stared at the night sky's stunning stars? Do you wonder where they all come from... or where they'll end up?

Astronomers have observed, named and mapped the stars for centuries. A thousand years ago, Muslim astronomers used huge instruments in enormous observatories to look at the sky. Recently, curiosity has motivated scientists to develop better and better telescopes. Analysing these observations, and thinking about them creatively, has expanded our understanding of the Universe.



The Hubble Space Telescope

More than 60 years ago, an astronomer had a brilliant idea. How about launching a telescope into space? Without the Earth's atmosphere blocking its view, the telescope would see details of stars that had never been seen before.

In 1990, space shuttle Discovery launched the Hubble Space Telescope. It began to orbit 600 km above Earth at 16 800 mile/hour.

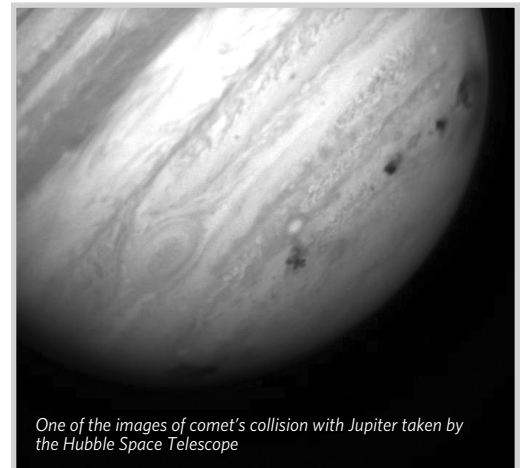
But there was a problem. Hubble's huge curved mirror was not curved enough. So Hubble sent blurry images back to Earth. Scientists worked hard to solve the problem. Three years later, astronauts fitted coin-sized mirrors to Hubble. Now the images were much clearer. Hubble's real work could begin.

Hubble has solved many astronomical mysteries...and created new questions.

Through analysing data from Hubble, scientists have learnt more about:

- The age of the Universe
- How quickly the Universe is expanding - and that it is probably getting faster
- Black holes - and that they are at the centre of most galaxies

Hubble has also captured amazing images of exciting events, like Jupiter's collision with a comet. This event happens once every few centuries



One of the images of comet's collision with Jupiter taken by the Hubble Space Telescope

The European Space Agency and NASA run Hubble. Scientists from all over the world ask Hubble to take images. Astronomers publish their findings from Hubble in scientific journals. There are many dramatic images from the telescope on the Internet. In recording and sharing their discoveries, today's astronomers are building on the work of Muslim scientists who produced detailed written records of their findings a thousand years ago.