

THE TELESCOPE



KEY FACTS

What is it?	The telescope is an instrument used to see objects that are far away. Telescopes are often used to view the planets and stars. Some of the same optical technology that is used in telescopes is also used to make binoculars and cameras.
When was it developed and by whom?	<p>This answer remains a mystery today.</p> <p>As glassmaking and lens-grinding techniques improved in the late 1500s someone would hold up 2 lenses and discover what they would do. The first person to apply for a patent for a telescope was Dutch spectacle maker Hans Lippershey. In 1608 Lippershey laid claim to a device that could magnify objects three times.</p> <p>Galileo made some improvements and first used the telescope for astronomy.</p> <p>In the late 1600's, Isaac Newton developed the reflecting telescope, by using mirrors instead of lenses.</p>
How does it work?	Early telescopes focused light using pieces of curved, clear glass, called lenses. Usually modern telescopes use curved mirrors to gather light from the night sky. The shape of the mirror or lens in a telescope concentrates light. That light is what we see when we look into the telescope.
Why are they important?	<p>One of the most famous telescopes in the world today is the Hubble Space Telescope. In 1990 this telescope was put into orbit around the Earth by the Space Shuttle. Being outside the Earth's atmosphere allows the Hubble to view outer space without background light. This has enabled it to take some amazing pictures of far away stars and galaxies.</p> <p>Before the Hubble Telescope was launched, astronomers could only estimate the age of the universe was between 10 and 20 billion years old. By measuring the brightness of stars</p>

millions of miles away, scientists were able to work out the age of the Universe with much greater accuracy. It is now thought the Universe is approximately 13.8 billion years old.

IMPORTANT TELESCOPIC TERMS

LIGHT GATHERING ABILITY	The better a telescope can gather light, the better you will be able to see far away stars and faint objects in the night sky. This feature is usually determined by the size of the aperture of the telescope. The larger the aperture, the more light the telescope can gather.
MAGNIFICATION	The magnification of a telescope describes how much larger the telescope can make objects appear.
2 MAIN TYPES	Refracting Telescopes - use glass lenses to magnify the image Reflecting Telescopes - use mirrors to focus the light of the image.
HUBBLE TELESCOPE MAIN ACHIEVEMENTS	The Hubble telescope was named after an astronomer called Edwin Hubble. This telescope launched in 1990. Some of its main contributions include determining the age of the universe with more precision, finding more moons near Pluto and monitoring space weather on outer planets

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