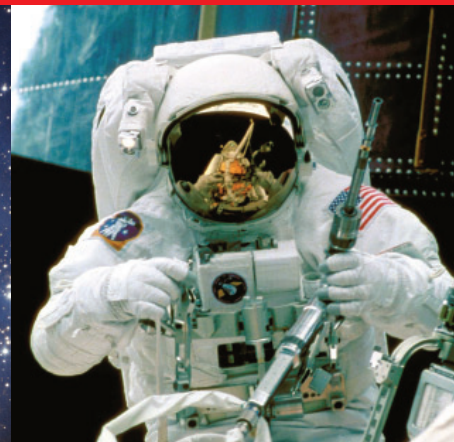




# 50 Years Since the Birth of the Space Age



## Start of the Space Race: Sputnik

On October 4, 1957 at 10:28 pm Moscow time, a brilliant and deafening detonation of smoke and flame illuminated the Soviet Union's rocket test site near Tyuratam, Kazakhstan, as a Russian R-7 intercontinental ballistic missile blasted off with an 84 kg beach ball-sized aluminium sphere on board. The sphere, named Sputnik, would become the first artificial satellite to orbit the Earth.

The Sputnik programme was a series of unmanned space missions undertaken to demonstrate the viability of exploring the upper atmosphere using artificial satellites. The Russian name Sputnik literally means 'co-traveller', 'travelling companion' or 'satellite'. The launch of Sputnik set off the space race between the Soviet Union and the United States which led to the sending of men into space and, eventually, the US moon landing of 1969.

In Russia, Sputnik is still a source of great national pride and a new monument is due to be unveiled in Moscow to mark the 50th anniversary of its launch.

## NASA 1958–2008

### The Mission

The National Aeronautics and Space Administration of the United States (NASA) is also celebrating 50 years of scientific and technological excellence. The mission of NASA is to pioneer humanity's future in space and to lead scientific discovery, particularly aeronautics research. Thousands of people around the world (including numerous Australians) are working to keep NASA's mission going.

### Curriculum focus

Science and Technology: Information and Communication, The Earth and its Surroundings, Using Technology, Design and Make

English: Reading, Writing, Talking and Listening, Research, Presenting

Creative and Practical Arts: Drama, Drawing and Sketching, Painting

Mathematics: Measurement, Number, Space

HSIE/SOSE: Significant Events and People.

## Website resources

[www.nasa.gov](http://www.nasa.gov)  
(NASA main site)

[www.spaceplace.nasa.gov/en/kids/](http://www.spaceplace.nasa.gov/en/kids/)  
(NASA Space Place for Kids page)

[www.education.jpl.nasa.gov/](http://www.education.jpl.nasa.gov/)  
(Jet Propulsion Laboratory: Education page)

[www.cdscn.nasa.gov](http://www.cdscn.nasa.gov)  
(Canberra Deep Space Communications Complex)

[www.atnf.csiro.au](http://www.atnf.csiro.au)  
(The Australia Telescope National Facility)

[www.outreach.atnf.csiro.au](http://www.outreach.atnf.csiro.au)  
(Australia Telescope Outreach and Education page)

[www.aerospaceguide.net/worldspace/australia\\_in\\_space.html](http://www.aerospaceguide.net/worldspace/australia_in_space.html)  
(Australia in Space—Australian Space Program)

[www.csiro.au/org/ps5m.html](http://www.csiro.au/org/ps5m.html)  
(Parkes Observatory)

[www.hubble.nasa.gov/](http://www.hubble.nasa.gov/)  
(Hubble Space Telescope)

[www.macquarienet.com.au](http://www.macquarienet.com.au)  
(MacquarieNet: contains extensive resources about space-related topics)



## Learning outcomes

Students will be able to:

- investigate natural phenomena and built environments
- design and make products, systems and environments to meet specific needs
- assess, select and use a range of technologies
- develop their knowledge and understanding of information and communication
- develop their knowledge and understanding of the earth and its surroundings
- use investigative techniques to identify opportunities for design activities
- understand that particular technologies are significant causes of change in the way people live
- understand various parts of the physical environment, e.g. stars, planets, earth, air and water.

