



# Science Focus 9

## Unit E

### Space Exploration

Space Link: NASA <http://www.nasa.gov/home/index.html>

#### Topic 1

##### For Our Eyes Only

- Frames of Reference
- What Our Ancestors Saw
- Ancient Myths
- Sky Co-ordinates
- The Stars as a Frame of Reference
- The Earth-Centred Model
- The Sun-Centred Model

#### Topic 2

##### Stronger Eyes and Better Numbers

- Telescopes
- Galileo's Approach to Inquiry
- Resolving Power
- Copernicus's Sun-centred Revolution Continues
- Universal Gravitation

#### Topic 3

##### The Spectroscope: New Meanings In Light

- Spectral Lines
- Spectroscopy: The Science of Colour
- Diffraction Gratings
- Spectroscopy for Astronomers
- The Doppler Effect
- An Amazing Tool

#### Topic 4

##### Bigger and Smarter Telescopes

- New Discoveries
- Combining telescopes
- Adaptive Optics
- Distance to the Stars

#### Topic 5

##### What Channel Is This?

- Radio Telescopes

#### Topic 6

##### Above the Atmosphere and Under Control

- Rockets – Getting Up There
- Computers – Making Adjustments
- Global Positioning System ( GPS )

#### Topic 7

##### The Solar System Up Close

- The Sun
- Traveling through The Solar System
- Data Cards for the Inner Planets
- Data Cards for the Outer Planets
- Exploring the Outer Planets
- Voyager Today

#### Topic 8

##### People In Space

- Breaking Free of Earth's Gravity
- The Apollo Program
- Meeting in Space
- The Space Shuttle
- The International Space Station