

Key Stage 5 Resource Pack

KS5



Hello Key Stage 5 Teacher!

We have a wealth of resources on our website to support your in-class teaching. If you had any questions about this guide or about our videos and activities let us know by emailing ROGEducation@rmg.co.uk.

Solar System

How do we know how old the Sun is?

- **Resource type:** Classroom activity and video
- **Topics covered:** Sun, Newton's law of gravitation, Kepler's third law
- **Find it here:** [How do we know how old the Sun is? | Royal Museums Greenwich](#)

Our Sun

- **Resource type:** Video
- **Topics covered:** Sun, solar magnetic field, sunspots, solar flares
- **Find it here:** [Our Sun | Royal Museums Greenwich](#)

Stars, Galaxies and Beyond

Coordinate Systems

- **Resource type:** Classroom activity and video
- **Topics covered:** Horizontal and equatorial coordinate systems
- **Find it here:** [Coordinate Systems video | Royal Museums Greenwich](#)

Stars and the HR Diagram

- **Resource type:** Video
- **Topics covered:** Stellar magnitude, distance, evolution, HR diagram
- **Find it here:** [Stars and the H-R Diagram | Royal Museums Greenwich](#)
- **Find it here:** [What is Gravity? | Royal Museums Greenwich](#)

The Origin of the Elements

- **Resource type:** Classroom activity and video
- **Topics covered:** Big bang, matter and antimatter, nuclear fusion, supernovae

- **Find it here:** [The Origin of the Elements | Royal Museums Greenwich](#)

Great Galaxies

- **Resource type:** Video
- **Topics covered:** Milky Way, black holes, star colour and temperature, globular clusters
- **Find it here:** [Great Galaxies | Royal Museums Greenwich](#)

Alien Worlds and the Doppler Effect

- **Resource type:** Classroom activity and video
- **Topics covered:** Doppler effect, collecting data, Audacity software
- **Find it here:** [Alien worlds and the Doppler effect | Royal Museums Greenwich](#)

Age of the Universe

- **Resource type:** Classroom activity
- **Topics covered:** Doppler effect, galaxies, spectra, error analysis, linear regression
- **Find it here:** [Age of the Universe | Royal Museums Greenwich](#)

Mechanics

Newton's Laws of Motion

- **Resource type:** Classroom activity and video
- **Topics covered:** Newton's laws of motion, spectra, doppler effect, galaxy rotation curves, dark matter, Newton's law of gravitation

Find it here: [Newton's Laws of Motion | Royal Museums Greenwich](#)

Big Questions

How will the Universe End?

- **Resource type:** Classroom activity and video
- **Topics covered:** Newton's law of gravitation, standard form, cosmological units, speed, distance, time
- **Find it here:** [Teacher resources: The fate of the Universe | Royal Museums Greenwich](#)

How Big is the Universe?

- **Resource type:** Classroom activity and video
- **Topics covered:** Velocity, distance, Hubble's constant, cosmological units
- **Find it here:** [How big is the Universe? | Royal Museums Greenwich](#)

What's inside a Black Hole?

- **Resource type:** Classroom activity and video
- **Topics covered:** Time dilation, black holes, Schwarzschild radius
- **Find it here:** [What's inside a black hole? | Royal Museums Greenwich](#)

What is Light?

- **Resource type:** Video
- **Topics covered:** Electromagnetic spectrum, waves, Sun, Milky Way, wavelengths
- **Find it here:** [What is Light? | Royal Museums Greenwich](#)

What makes the universe colourful?

- **Resource type:** Classroom activity and video
- **Topics covered:** Cosmic microwave background radiation, Wien's law
- **Find it here:** [What Makes the Universe Colourful? | Royal Museums Greenwich](#)

Where does space begin?

- **Resource type:** Classroom activity and video
- **Topics covered:** Forces, gravity, circular motion, orbits
- **Find it here:** [Where does space begin? | Royal Museums Greenwich](#)

Royal Observatory Greenwich

History of the Royal Observatory Greenwich

- **Resource type:** Classroom activity and video
- **Topics covered:** History of the Royal Observatory Greenwich
- **Find it here:** [The history of the Royal Observatory Greenwich | Royal Museums Greenwich](#)