



Subject: Science
Year group: 5
Term: Autumn
Unit name: Space
Strand: Physics

Prior Knowledge –

Year 5 autumn unit- Forces

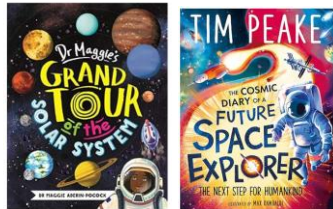
Observe changes across the four seasons. (Y1 - Seasonal changes) Observe and describe weather associated with the seasons and how day length varies. (Y1 - Seasonal changes)

Key Vocabulary: Earth, sun, moon, Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune, Pluto (dwarf planet), spherical, solar system, rotates, star, orbit, planets, axis, night, day, season, galaxy. Meteorite, celestial.

Key Scientists:

Helen Sharman
Neil Armstrong
Tim Peake
Buzz Aldrin
Rosemary Coogan (ESA Astronaut)

Suggested books:



National curriculum:


















- Describe the movement of the Earth and other planets, relative to the sun in the solar system.
- Describe the movement of the moon relative to the Earth.
- Describe the Sun, Earth and Moon as approximate spherical bodies.
- Use Earth rotation to explain day and night due to the apparent movement of the sun across the sky.

Working Scientifically:

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- Using test results to make predictions to set up further comparative and fair tests
- Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

Excellence

Nurture

Key learning objectives- Highlighted boxes = Learning Objective for that lesson. The other two are your Success Criteria.		
Knowledge	Working Scientifically	Scientific Enquiry
To describe the movement of the Earth and other planets, relative to the sun in the solar system.	To raise questions and ask questions and suggest reasons for similarities and differences. 	To identify and classify planets. 
To describe the movement of the Earth and other planets, relative to the sun in the solar system.	To use measurement to represent planets in a model.	To identify and classify planets. 
To describe the movement of the moon relative to the Earth.	To record my work using scientific diagrams and labels when representing the Moon phases. 	To observe changes over time. 
To describe the Sun, Earth and Moon as approximate spherical bodies	To use a model to discuss, communicate and justify scientific ideas using scientific vocabulary. 	To use research and secondary sources to find out about the Moon. 
To use the Earth's rotation to explain day and night due to the apparent movement of the sun across the sky.	To present my results in a variety of ways to answer a question. 	look for patterns in how much day light each place gets in relation to where the country is located. 
To describe the movement of the moon relative to the Earth.	To plan my own fair test and control variables. 	To conduct a fair test where variables are identified and controlled. 
Scientific Enquiry Key	Comparative / fair testing Changing one variable to see its effect on another, whilst keeping all others the same. 	Pattern-seeking Identifying patterns and looking for relationships in enquiries where variables are difficult to control. 
	Research Using secondary sources of information to answer scientific questions. 	Identifying, grouping and classifying Making observations to name, sort and organise items. 
	Observation over time Observing changes that occur over a period of time ranging from minutes to months. 	Problem-solving Applying prior scientific knowledge to find answers to problems. 
Assessment- Key indicators: Can show using diagrams the movement of the Earth and moon. Can explain the rotation of the Earth and how this causes night and day. Can explain evidence gathered about the position of shadows in terms of movement of the Earth. Can explain how a sundial works. Can explain why we have time zones.		