






Science Medium Term Plan

	Year Group:	Term:	Topic/Unit :		
	5	Autumn	Earth and Space		
National Curriculum Programme of Study	<ul style="list-style-type: none"> 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 approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky. 				
Prior Learning	<ul style="list-style-type: none"> Explore the natural world around them. (Reception – Earth and space) Describe what they see, hear and feel whilst outside. (Reception – Earth and space) 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) 				
Future Learning	<ul style="list-style-type: none"> Gravity force, weight = mass x gravitational field strength (g), on Earth $g=10 \text{ N/kg}$, different on other planets and stars; gravity forces between Earth and Moon, and between Earth and Sun (qualitative only). (KS3) Our Sun as a star, other stars in our galaxy, other galaxies. (KS3) The seasons and the Earth's tilt, day length at different times of year, in different hemispheres. (KS3) The light year as a unit of astronomical distance. (KS3) 				
Links to other subjects	Science – Rocks Science – forces				
Enrichment	Video showing relative sizes of the planet.				
Working Scientifically	Comparative tests 	Identify and classify 	Observation over time 	Pattern seeking 	Research 
	How does the length of daylight hours change in each season?	How could you organise all the objects in the solar system into groups?	Can you observe and identify all the phases in the cycle of the Moon?	Is there a pattern between the size of a planet and the time it takes to travel around the Sun?	How do astronomers know what stars are made of?
Working Scientifically Assessment Focus	Do: Record – Craters Working Scientifically Review: Gather and record data using tables and graphs. Assessment Focus <ul style="list-style-type: none"> Can children design simple tables to record results? Can children present results as a bar chart or line graph? 				
Sticky vocabulary	Earth, Sun, Moon, Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune, spherical, solar system, rotates, star, orbit, planets, Axis, Rotation, Day, Night, Phases of the Moon, star, constellation, waxing, waning, crescent, gibbous.				
End points	<ul style="list-style-type: none"> The Sun is a star. It is at the centre of our solar system. There are 8 planets. These travel around the Sun in fixed orbits. 				

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- Earth takes 365¼ days to complete its orbit around the Sun.
- The Earth rotates (spins) on its axis every 24 hours.
- As Earth rotates half faces the Sun (day) and half is facing away from the Sun (night).
- As the Earth rotates, the Sun appears to move across the sky.
- The Moon orbits the Earth. It takes about 28 days to complete its orbit.
- The Sun, Earth and Moon are approximately spherical.