

Year5				
Topic	Prior Learning	Present learning	Misconceptions	Future learning
Earth and space <b>National Curriculum</b> <ul style="list-style-type: none"> <li>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</li> <li>Describe the movement of the Moon relative to the Earth.</li> <li>Describe the Sun, Earth and Moon as approximately spherical bodies.</li> <li>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.</li> </ul>	<ul style="list-style-type: none"> <li>Explore the natural world around them. (Reception – Earth and space)</li> <li>Describe what they see, hear and feel whilst outside. (Reception – Earth and space)</li> <li>Observe changes across the four seasons. (Y1 - Seasonal changes)</li> <li>Observe and describe weather associated with the seasons and how day length varies. (Y1 - Seasonal changes)</li> </ul>	<p><b>Knowledge and Understanding– Materials (Mixtures and Separation)</b></p> <ul style="list-style-type: none"> <li>-the size of the planets with respect to the sun</li> <li>-how the model of the solar system developed</li> <li>-how day and night is formed</li> <li>-how seasons are formed –differences between planet, natural satellite and star</li> <li>-the phases of moon</li> </ul> <p><b>Investigations:–</b></p> <ul style="list-style-type: none"> <li>-observe the phases of moon and record the phases</li> <li>-construct simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day</li> <li>- plot a graph in order to compare the time of day at different places on the Earth through internet links</li> <li>-create simple models of the solar system</li> </ul> <p><b>Vocabulary:</b>            pinnacle            rotation            geocentric            heliocentric            axis            revolution            planet</p>	Some children may think: <ul style="list-style-type: none"> <li>the Earth is flat</li> <li>the Sun is a planet</li> <li>the Sun rotates around the Earth</li> <li>the Sun moves across the sky during the day</li> <li>the Sun rises in the morning and sets in the evening</li> <li>the Moon appears only at night</li> <li>night is caused by the Moon getting in the way of the Sun or the Sun moving further away from the Earth.</li> </ul>	<ul style="list-style-type: none"> <li>Gravity force, weight = mass x gravitational field strength (g), on Earth</li> <li><math>g = 10 \text{ N/kg}</math>, different on other planets and stars; gravity forces between Earth and Moon, and between Earth and Sun (qualitative only). (KS3)</li> </ul>

