



<p><b>Vocabulary</b></p> <p>Earth, Orbit, Gravity, Rotate, Sun, Axis, Mars, Seasons, Mercury, Hemisphere, Venus, Lunar, Saturn, Spherical, Jupiter, Celestial, Uranus, Tilt, Neptune, Pluto, International Space Station, Mars Rover</p>	<p><b>Skills</b> <u>Enquiry and working scientifically skills (UKS2)</u></p> <ul style="list-style-type: none"> <li>plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li><b>take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</b></li> <li><b>record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</b></li> <li>report and present 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</li> <li><b>identify scientific evidence that has been used to support or refute ideas or arguments.</b></li> </ul>	<p><b>What we already know</b></p> <p>Earth and Space is a new topic to Year 5 in science however as part of their general knowledge, some children may know some basic concepts about 'Earth and Space' including...</p> <ul style="list-style-type: none"> <li>Earth is a planet 'in space'</li> <li>Gravity is a force that stops things from floating in the air</li> <li>Space is vast and much is yet to be explored or discovered</li> <li>Earth is the only planet able to sustain human life</li> </ul> <p><u>KS1 – Knowledge</u></p> <ul style="list-style-type: none"> <li>Y2/Sp1 – What can 'pushes and pulls' do?</li> <li>Y2/Sp2 – Mars is a planet – gravity</li> </ul> <p><u>KS2 – Knowledge and Skills</u></p> <ul style="list-style-type: none"> <li>Y3/Sp2 – Forces and Magnets - A force is a push or a pull</li> <li>Y3/Sp2 – Taking accurate measurements, Gather and record data accurately in a variety of ways</li> </ul>
<p><b>Illustration</b></p>	<p><b>Application/ Outcomes</b></p> <ul style="list-style-type: none"> <li>Debate using evidence for a spherical earth vs. flat earth</li> <li><i>Outdoor Learning – shows Earth, moon and sun's movements.</i></li> <li>create 'moon cycle' diagrams to show the different phases of the moon</li> <li>Use Earth's rotation to explain day and night - link to seasons</li> <li>Discuss ideas about the solar system changing</li> <li>Space exploration over time</li> </ul>	<p><b>Concepts</b></p> <ul style="list-style-type: none"> <li>the Sun is a star at the centre of our solar system and it has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune</li> <li>a moon is a celestial body that orbits a planet</li> <li>the Earth orbits the sun and the moon orbits the Earth</li> <li>Orbit is caused by gravity which pulls objects towards the centre of gravity</li> <li>it takes 365 ¼ days for the Earth to orbit the sun, and 28 days for the moon to orbit the Earth</li> <li>the moon appears in different 'phases' of its cycle</li> <li>the sun can appear to be 'eclipsed' by the moon</li> </ul>
<p><b>Cross Curricular Links</b></p> <p>Computing – Robotics – their use in understanding space and enabling further space exploration          Reading/diversity – first woman in space – black women at NASA          Link to visit to Space Centre</p>	<p><b>SEND Adaptations</b></p> <p>Word banks, image mats, differentiated worksheets, adult support.</p>	