

## Holy Family Catholic Primary School Cronton

<p><b>Year 5:</b> Science Spring Term 2</p> <p><b>What I should already know:</b></p> <ul style="list-style-type: none"> <li>* We have four seasons (autumn, winter, spring and summer).</li> <li>* The Sun is a source of light but the Moon is not.</li> <li>* A shadow is caused when an object blocks light from passing through it.</li> <li>* The properties of a sphere.</li> </ul> <p><b>Fact File</b></p> <p><b>What causes a year and the seasons?</b></p> <ul style="list-style-type: none"> <li>* The Earth takes 365 and a quarter days to orbit the Sun.</li> <li>* Because of the extra quarter day, it takes to orbit the Sun, every four years on Earth is a leap year!</li> <li>* It is the Earth's tilt that causes the seasons.</li> </ul> <p><b>What causes day and night</b></p> <ul style="list-style-type: none"> <li>* The Earth rotates on its axis anti-clockwise and makes a complete rotation over 24 hours (a day).</li> <li>* It appears as though Sun moves through the sky but the Earth's rotation causes day and night.</li> <li>* Different parts of the Earth experience daylight at different times - this means that it is morning, afternoon and night in different places. This is also the reason why we have time zones.</li> <li>* Because of the Earth's tilt, the poles experience 24 hours of sunlight in the summer, and very few hours of sunlight in the winter. As the Earth rotates, shadows that are formed change in size and orientation.</li> </ul>	<p><b>Unit:</b> The Earth and Beyond</p> <p><b>What I will know by the end of the unit:</b></p> <ul style="list-style-type: none"> <li>* I know about the Earth's (and other planets') place in the solar system, and their relationships with other bodies in space, in particular with the Sun.</li> <li>* I know how the Earth's orbit determines the length of a year and why we have leap years.</li> <li>* I know the Earth's rotation and tilt affect the direction and length of shadows, and how to use shadows for telling the time.</li> <li>* I know about how time was standardised around the world, about the need for scientists to choose a starting point in the continuous process of cycles of sunrise and sunset, and investigate longitude.</li> <li>* I know about the International Date Line and the Greenwich Meridian.</li> </ul> <p><b>Key Scientist</b></p> <p><b>Dr Maggie Adderin-Pocock</b> born 9 March 1968 is a British <a href="#">space scientist</a> and science educator. She is an honorary research associate of <a href="#">University College London's</a> Department of Physics and Astronomy. Since February 2014, she has co-presented the long-running astronomy television programme <a href="#">The Sky at Night</a> with <a href="#">Chris Lintott</a>. She is the first black woman to win a gold medal in the Physics News Award. She has also earned the title of the president-elect of the British Science Association.</p>	<p><b>Theme:</b> Earth and Space</p> <p><b>Vocabulary</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Astronomer</b></td> <td>An expert in or student of astronomy (space and the universe).</td> </tr> <tr> <td><b>Axis</b></td> <td>An imaginary line through the middle of something.</td> </tr> <tr> <td><b>Moon</b></td> <td>The natural satellite of the earth.</td> </tr> <tr> <td><b>Orbit</b></td> <td>The curved path in space that is followed by an object going round and round a planet, moon, or star</td> </tr> <tr> <td><b>Planet</b></td> <td>A large, round object in space that moves around a star.</td> </tr> <tr> <td><b>Rotate</b></td> <td>Move in a circle round an axis or centre.</td> </tr> <tr> <td><b>Satellite</b></td> <td>An artificial body placed in orbit round the earth or moon or another planet in order to collect information or for communication</td> </tr> <tr> <td><b>Solar system</b></td> <td>The Sun and all the planets that go round it.</td> </tr> <tr> <td><b>Sphere</b></td> <td>An object that is round in shape like a ball.</td> </tr> <tr> <td><b>Star</b></td> <td>A large ball of burning gas in space.</td> </tr> <tr> <td><b>Sun</b></td> <td>A star which the earth orbits.</td> </tr> </table>	<b>Astronomer</b>	An expert in or student of astronomy (space and the universe).	<b>Axis</b>	An imaginary line through the middle of something.	<b>Moon</b>	The natural satellite of the earth.	<b>Orbit</b>	The curved path in space that is followed by an object going round and round a planet, moon, or star	<b>Planet</b>	A large, round object in space that moves around a star.	<b>Rotate</b>	Move in a circle round an axis or centre.	<b>Satellite</b>	An artificial body placed in orbit round the earth or moon or another planet in order to collect information or for communication	<b>Solar system</b>	The Sun and all the planets that go round it.	<b>Sphere</b>	An object that is round in shape like a ball.	<b>Star</b>	A large ball of burning gas in space.	<b>Sun</b>	A star which the earth orbits.
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