Knowledge Organiser - Science: Autumn term Year 5


| Earth and Space |  |  |  |
| :---: | :---: | :---: | :---: |
| Key Knowledge |  |  |  |
| The movements of the planets |  | Planet Earth and the moon |  |
| The shape and relative sizes of the planets | The planets are roughly spherical in shape and made of rock or gas. | The Earth's movement around the sun. | The Earth orbits the sun in 365.25 days. <br> Seasons on Earth are created by the Earth's tilt |
| Planets' orbits of the sun | Each planet orbits the sun at a different speed, and one orbit is a year. |  |  |
|  |  |  | Day and night are created by Earth's rotation, which explains the apparent movement of the sun across the sky. |
| The planets' names and their order from the sun | There are 8 planets plus Pluto. Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus (and Pluto being a dwarf planet). Together with the sun, these make up our solar system. | EQUINOX <br> 23 September equinox |  |
| The relative sizes and make-up of the planets | The rocky planets: Mercury, Venus, Earth and Mars Gas planets: (Jupiter, Saturn, Uranus, Neptune) |  |  |  |
| The phases of the moon <br> It takes approximately 27 days for the moon to complete one orbit the Earth. | The moon appears to change shape because of its position in the sky, and its position relative to the sun. |  |  |  |
|  |  | East |  |
|  |  | Key vocabulary <br> Planet - A celestial body moving in orbit round a star |  |
| FULL <br> WANING GIBBOUS | WAXING <br> WAXING <br> - QỤARTER . GIBBOUS | Orbit - The <br> around a st <br> Equinox - t <br> Sun - The s <br> Rotation - <br> Solar system <br> in orbit rou <br> Solstice - th <br> solstice and <br> winter solstic <br> Star - A fixed <br> remote bod <br> Moon - A <br> Day - A twe <br> next, corres <br> Night - The <br> any light from | larly repeated oval course of a celestial object planet <br> ays when day and night are of equal length ound which planets orbit action of rotating about an axis or centre he collection of eight planets and their moons e sun <br> ngest day (approx $21^{\text {st }}$ June is the summer shortest day (approx $21^{\text {st }}$ December) is the <br> minous point in the night sky which is a large, the sun <br> al satellite of any planet four hour period, from one midnight to the ding to a rotation of the earth on its axis that occurs when part of a planet is not lit by e sun, and so it is in darkness. |

Scientific Inquiry: Why do shadows appear to move position over the course of a day?
Why does the moon have phases?

