



Science Skills Progression

To understand the Earth's movement in space

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| Essential characteristics of scientists | <ul style="list-style-type: none">• The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.• Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations.• Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.• High levels of originality, imagination or innovation in the application of skills.• The ability to undertake practical work in a variety of contexts, including fieldwork.• A passion for science and its application in past, present and future technologies. | |
| | Key knowledge | Key vocabulary |
| EYFS 30-50 | <ul style="list-style-type: none">• Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world.• Talks about why things happen and how things work. | |
| EYFS ELG | <ul style="list-style-type: none">• They make observations of animals and plants and explain why some things occur, and talk about changes. | |
| Y1/2 | <p>Y1 learning challenge - Why does it get dark earlier in winter?</p> <p>Science Bug - Y1 Changing seasons</p> <p>Focus text links - Can't You Sleep, Little Bear? Leaf Man</p> <ul style="list-style-type: none">• Observe the apparent movement of the Sun during the day.• Observe changes across the four seasons.• Observe and describe weather associated with the seasons and how day length varies. | <ul style="list-style-type: none">• weather• temperature• seasons• leaves• thunderstorms |
| Y5/6 | <p>Y5 learning challenge - Will we ever send another human to the moon?</p> <p>Science Bug - Y5 Earth and space</p> <ul style="list-style-type: none">• Describe the movement of the Earth 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 | <ul style="list-style-type: none">• solar• orbit• axis• rotating• gravitational |



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| | sky. | |
| KS3 | <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).• Our Sun as a star, other stars in our galaxy, other galaxies.• The seasons and the Earth's tilt, day length at different times of year, in different hemispheres.• The light year as a unit of astronomical distance. | |