



Progression of knowledge science – Earth and Space (Physics)

Progression of skills to KS3 are detailed on Earth and Space / trust science sheets

Threshold Concepts This concept involves understanding what causes seasonal changes, day and night.	EYFS	Year 1	Year 3	Year 5
<p>KS 1</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. <p>LKS2</p> <ul style="list-style-type: none"> • <i>Describe the movement of the Earth relative to the Sun in the solar system.</i> • <i>Describe the movement of the Moon relative to the Earth.</i> <p>UKS2</p> <ul style="list-style-type: none"> • Describe the movement of the Earth, and other planets, 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 sky. 	<ul style="list-style-type: none"> • Learn about the solar system and stars • Learn about space travel • Explore the natural world around them • Describe what they see, hear and feel whilst outside • Understand the effect of change in seasons on the natural world around them • Name the 4 seasons 	<p>Name the 4 seasons and say when in the year they occur</p> <ul style="list-style-type: none"> • Observe and describe weather associated with the seasons • Observe changes across the 4 seasons • Can describe other features that change throughout the year that are caused by the change in weather e.g. numbers of mini beasts found outside, seed and plant growth, leaves on trees, clothes worn by people, hibernation and migration • Explain how day light (from the sun rising to sun setting) length varies across the year (longer in summer, shorter in winter) 	<ul style="list-style-type: none"> • Name some types of rock and describe the physical features of each • Compare and group together kinds of rocks based on their appearance • Compare and group together kinds of rocks based on their simple physical properties • Name the 3 types of rocks (igneous, sedimentary and metamorphic) and classify based on their appearance and physical properties (e.g. marble is metamorphic because it is hard and smooth) • Describe how the 3 rock types are formed (the rock cycle) • Recognise that soils are made from rocks and organic matter • Describe in simple terms how fossils are formed when things that have lived are trapped in rock 	<ul style="list-style-type: none"> • Name the planets of Our Solar System and understand Our place in Our universe, describe the Sun, Earth, Moon and other planets as approximately spherical bodies • Describe the movement of the Earth around the sun in the solar system (a full orbit is 365 days, the Earth spins on its axis every 24 hours) • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the day • Describe the movement of the moon relative to the Earth (lunar cycles take 28 days, the lunar cycle and eclipses) • Describe the movement of the other planets relative to the sun in the solar system (fixed orbits) • Describe what meteors are, and name other objects in space • Explain how 'The Space Race' has expanded our scientific knowledge and discuss space travel

Links from Reception Development Matters are detailed on the Reception Termly Planning Document