

Science Year 3
Core Purpose Long Term Overview

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit	Animals, including humans	Plants	Forces and magnets	Animals, including humans	Rocks	Light
Knowledge content	<p>National Curriculum statements</p> <ul style="list-style-type: none"> identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat 	<ul style="list-style-type: none"> identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant investigate the way in which water is transported within plants explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal 	<ul style="list-style-type: none"> compare how things move on different surfaces notice that some forces need contact between 2 objects, but magnetic forces can act at a distance observe how magnets attract or repel each other and attract some materials and not others compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials describe magnets as having 2 poles predict whether 2 magnets will attract or repel each other, depending on which poles are facing 	<ul style="list-style-type: none"> identify that humans and some other animals have skeletons and muscles for support, protection and movement 	<ul style="list-style-type: none"> compare and group together different kinds of rocks on the basis of their appearance and simple physical properties describe in simple terms how fossils are formed when things that have lived are trapped within rock recognise that soils are made from rocks and organic matter 	<ul style="list-style-type: none"> recognise that they need light in order to see things and that dark is the absence of light notice that light is reflected from surfaces recognise that light from the sun can be dangerous and that there are ways to protect their eyes recognise that shadows are formed when the light from a light source is blocked by an opaque object find patterns in the way that the size of shadows change
Rationale for order		The topic follows on from human nutrition as children will have an understanding that humans cannot make their own food but that plants can.	Children should have recently observed ice. This can be used in discussion regarding friction.	Children will already have an awareness of bones as part of the previous fossil topic. They will have picked up some of the names for certain bones or parts of the body	The weather should allow a trip to observe strata in rocks so children can gain an understanding of how the bodies of animals came to be trapped in rock or possible fossil hunting.	Summer 2 is the most likely time for sunshine to allow for shadow experiments outside.
Key Knowledge						

	(to be retained in bold)						
SC1 Investigation focus	SC1 Focus	<p>Which drink is the healthiest?</p> <p>Children predict which drink is the healthiest from a given list. They then weigh out the sugar content and report their findings.</p>					
	<p>Working Scientifically focus covered from progression overview:</p> <p>(Focus which will be primarily child led/independent. There is a focus on developing SC1 skills, which should be first modelled and allow a chance for the children to develop indep)</p>	<p>THIS UNIT WILL BE FULLY GUIDED AND MODELLED BY THE TEACHER This should build on the plan do review model used in EYFS</p> <p>PLAN -That scientific investigation begins with a question they want to find the answer to -That they can ask questions about the world and then make observations to answer these questions.</p> <p>CONDUCT -That they can use magnifying glasses to observe objects closely (as a way of collecting results) -That objects can be identified or sorted into groups based on their observable properties (Classification)</p> <p>RECORD - That in order to answer the asked questions, data needs to be gathered and recorded -That they can write down numbers and words or draw pictures to record what they find</p> <p>CONCLUDE AND EXPLAIN -To suggest an answer based on real life experience or using taught scientific knowledge</p>	<p>PLAN -That scientific investigation begins with a question they want to find the answer to -That they can ask questions about the world and then make observations to answer these questions.</p> <p>CONDUCT -That they can use magnifying glasses to observe objects closely (as a way of collecting results) -That objects can be identified or sorted into groups based on their observable properties (Classification)</p> <p>RECORD - That in order to answer the asked questions, data needs to be gathered and recorded -That they can write down numbers and words or draw pictures to record what they find</p> <p>CONCLUDE AND EXPLAIN -To suggest an answer based on real life experience or using taught scientific knowledge</p>	<p>PLAN -That scientific investigation begins with a question they want to find the answer to -That they can ask questions about the world and then make observations to answer these questions.</p> <p>CONDUCT -That they can use magnifying glasses to observe objects closely (as a way of collecting results) -That objects can be identified or sorted into groups based on their observable properties (Classification)</p> <p>RECORD - That in order to answer the asked questions, data needs to be gathered and recorded -That they can write down numbers and words or draw pictures to record what they find</p> <p>CONCLUDE AND EXPLAIN -To suggest an answer based on real life experience or using taught scientific knowledge</p>	<p>PLAN -That scientific investigation begins with a question they want to find the answer to -That they can ask questions about the world and then make observations to answer these questions.</p> <p>CONDUCT -That they can use magnifying glasses to observe objects closely (as a way of collecting results) -That objects can be identified or sorted into groups based on their observable properties (Classification)</p> <p>RECORD - That in order to answer the asked questions, data needs to be gathered and recorded -That they can write down numbers and words or draw pictures to record what they find</p> <p>CONCLUDE AND EXPLAIN -To suggest an answer based on real life experience or using taught scientific knowledge</p>	<p>PLAN -That scientific investigation begins with a question they want to find the answer to -That they can ask questions about the world and then make observations to answer these questions.</p> <p>CONDUCT -That they can use magnifying glasses to observe objects closely (as a way of collecting results) -That objects can be identified or sorted into groups based on their observable properties (Classification)</p> <p>RECORD - That in order to answer the asked questions, data needs to be gathered and recorded -That they can write down numbers and words or draw pictures to record what they find</p> <p>CONCLUDE AND EXPLAIN -To suggest an answer based on real life experience or using taught scientific knowledge</p>	
Assessment focus	Teacher Assessment Framework Knowledge		<p>Name, locate and describe the functions of the main parts of plants, including those transporting water and nutrients</p> <p>Describe the requirements of plants for life and growth</p>	Describe the effects of simple forces that act at a distance (magnetic forces, including those between like and unlike magnetic poles).	Name and describe the functions of the main parts of the musculoskeletal system	Describe how fossils are formed	Explain that light from light sources, or reflected light forms shadows and how shadows can change in size.
						Group and identify rocks according to their properties, based on first-hand observation	