

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y3	Rocks	Light	Forces and Magnets	Animals, including humans (Nutrition + Skeleton)	Plants	Plants
<b>Topic Take Aways</b>	<p>I can describe sedimentary and igneous rocks and explain the difference.</p> <p>I can describe how soil is made from a mixture of water, air, minerals and organic matter.</p> <p>I can describe how fossils are formed over a long period of time.</p> <p>I can compare and group rocks based on</p>	<p>I know dark is the absence of light.</p> <p>I know I need light to see.</p> <p>I know light can be reflected from a surface.</p> <p>I can explain how a shadow is formed and how I can change the shadow size.</p> <p>I can explain the danger of</p>	<p>I know that a force is a push or a pull.</p> <p>I know that magnetic forces can act at a distance.</p> <p>I know that magnets can attract or repel.</p> <p>I can sort materials on the basis of whether they are attracted to a magnet.</p>	<p>I know that a balanced diet means eating food from different food groups.</p> <p>I know animals need water, food and air to stay healthy and these are transported through the body.</p> <p>I know that humans and some animals have a skeleton and I</p>	<p>I know the function of roots, stem, leaves, and flowers.</p> <p>I know that plants need water, light, and nutrients from the soil, air and space to grow.</p> <p>I know that different plants need different amounts of these - for example a cactus needs little water.</p> <p>I know water is absorbed by the roots, travels up the stem and evaporates from the leaves, causing more water to be absorbed.</p> <p>I know the lifecycle of a plant and that the flower's purpose is to create seeds which are then dispersed and begin to grow into a new plant.</p>	

	<p>appearance and physical properties. I can explain my reasons for grouping the rocks.</p>	<p>direct sunlight and how to protect myself.</p>	<p>I know a magnet has 2 poles.  I can predict whether magnets will attract or repel each other, depending on which poles are facing.</p>	<p>can describe it.  I know that humans have muscles which work in pairs to move the bones.  I know the purpose of the skeleton is to protect organs, allow movement and support the body.</p>		
<b>Working Scientifically</b>	<p>I can explain my own ideas and explore different types of scientific enquiry to explore them.  Can I plan how to observe and decide if I need to take measurements?</p>	<p>Can I plan a fair test and explain why it was fair?  Can I take accurate measurements using different equipment and units of measure?</p>	<p>Can I plan how to observe and decide if I need to take measurements?  Can I explain what I have found and use their measurements to say whether</p>	<p>Can they describe what they have found using scientific language?  Can I make links between my results and other</p>	<p>Can I plan a fair test and explain why it was fair?  Can I record observations in different ways? - Labelled diagrams, charts etc.</p>	<p>Can I discuss differences, similarities or changes related to simple scientific ideas?  Can I make links between my results and other scientific evidence?</p>

			it helps to answer the question?	scientific evidence?		
Science Investigation	<p><u>Can I group rocks according to their physical properties?</u></p> <p>Children work as geologists to test the rocks. Which would be best for each purpose? (Water + pipettes for permeable, tanks with water for buoyancy, sandpaper / nails for durability)</p> <p>Record answers in table.</p>	<p><u>Can I find out if the position of the light source affects the size of the shadow?</u></p> <p>How could we test this? Let the children share some ideas. Then explain how we will be carrying out investigation and what the children will need to do. Children to complete the experiment planning sheet thinking about each stage. Make sure we consider what will make it a fair test.</p>	<p><u>Can I plan an investigation to explore the strength of different magnets?</u></p> <p>Which magnets are the strongest? How can we compare them? What could we do to test? How could we make sure it was a fair test?</p> <p>Plan and carry out experiment using paperclips and magnets.</p>	<p><u>Can I explore why bones are important?</u></p> <p>Use a thin rubber glove to represent a human hand. Observe how it is floppy without bones. Use straws to represent bones and how it is now supported. How else do bones help?</p>	<p><u>Can I plan and set up an investigation to see what plants need to grow well.</u></p> <p><b>Growing plants from seed.</b></p> <p>Children decide about what they will do to carry out their investigation and how they are going to be sure that all the other factors stay the same. Discuss the importance of a fair test and how we will have a control variable that we will make sure has all of the elements so that we can compare the results to this.</p>	<p><u>Can I investigate how plants get water?</u></p> <p>Cover a branch with a clear, sealed plastic bag. Leave for a week, children will observe it now looks misty and contains water. Where did it come from?</p> <p>Look at the movement of coloured water in a vase of white flowers or celery.</p>

		<p>Using torches and toy figures, children carry out investigation to see how the distance of the light source from the object affects the size of the shadow. Talk the children through the stages and model what the set up should look like. Children record results in table and then draw their own conclusions about how the distance affects the shadow size.</p>			<p>Use a planning sheet for them to think through each stage. Question, prediction and why, method, how we will measure? Take measurement of plant so we can compare at end. Children then work in pairs to set up their investigation. Give them a healthy plant. Have several different types of plant so we can compare at the end of the experiment if all plants need the same amount of the elements to survive? Look at plants every few days and take observations and</p>	
--	--	--	--	--	--	--

					measurements. At the end of the experiment children draw conclusions about what they found out and see if their prediction was correct.	
<b>Vocabulary</b>	permeable, impermeable, durable, buoyancy, fossils, soils, sandstone, granite, marble, pumice, crystals, absorbent	light, shadows, mirror, reflective, dark, reflection	magnetic, force, contact, attract, repel, friction, poles, push, pull	movement, muscles, bones, skull, nutrition, skeletons	air, light, water, nutrients, soil, reproduction, transportation, dispersal, pollination, flower	air, light, water, nutrients, soil, reproduction, transportation, dispersal, pollination, flower