



## TLA ~ Year 3 Science Progression



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cornerstones Title	<b>Predator</b>	<b>Gods &amp; Mortals</b>	<b>Scrumdiddlyumptious</b>	<b>Mighty Metals</b>	<b>Through the Ages</b>	<b>Rocks, Relics &amp; Rumbles</b>
Unit title	Animals including humans	Plants living things and habitats	Animals including humans	Forces and Magnets	Light and Sound.	Materials
Programme of study	<p>Identify that animals, including humans, need the right types and amounts of nutrition, and that they cannot make their own food; they get nutrition from what they eat. (A)</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement. (B)</p>	<p>Identify and describe the functions of different parts of flowering plants : roots, stem/trunk, leaves and flowers. (A)</p> <p>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. (B)</p> <p>Investigate the way in which water is transported in plants (C)</p> <p>Explore the part that flowers play in the lifecycle of flowering plants including pollination, seed formation and seed dispersal (D)</p>	<p>Identify that animals, including humans, need the right types and amounts of nutrition, and that they cannot make their own food; they get nutrition from what they eat. (A)</p>	<p>Compare how things move on different surfaces. (A)</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (B)</p> <p>Observe how magnets attract or repel each other and attract some materials and not others. (C)</p> <p>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. (D)</p> <p>Describe magnets as having two poles. (E)</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing. (F)</p>	<p>Recognise that they need light in order to see things and that dark is the absence of light. (A)</p> <p>Notice that light is reflected from surfaces. (B)</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (C)</p> <p>Recognise that shadows are formed when the light, from a light source, is blocked by an opaque object. (D)</p> <p>Find patterns in the way that the size of shadows change? (E)</p>	<p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (A)</p> <p>Describe, in simple terms, how fossils are formed when things that have lived are trapped within rock. (B)</p> <p>Recognise that soils are made from rocks and organic matter. (C)</p>
Skills	<p>Explain the importance and characteristics of a healthy, balanced diet.</p> <p>Describe how humans need the skeleton and muscles for support,</p>	<p>Investigate how water is transported in plants.</p> <p>Investigate the conditions needed for plants to grow e.g. light, nutrients, air, space and water.</p>	<p>Explain the importance and characteristics of a healthy, balanced diet.</p>	<p>Explain that an object will not move unless a push or pull force is applied.</p> <p>Compare and group materials based on their magnetic properties.</p>	<p>Be able to measure the reflectivity of different materials.</p> <p>Be able to group materials into reflective and non-reflective.</p>	<p>Compare and group rocks based on their appearance and simple physical properties.</p>

	protection and movement.	<p>Be able to dissect a single plant's flower and identify its features such as the male and female parts as well as roots, stem, leaves and flowers.</p> <p>Describe how pollination, seed formation and seed dispersal are linked to new plants being grown.</p>		<p>Be able to show that magnets have two poles (north and south) and that opposite poles attract each other whilst like poles repel each other.</p> <p>Compare and group materials based on their magnetic properties.</p>	<p>Be able to name sources of light.</p> <p>Be able to measure and record the length of shadows over a period of time.</p>	<p>Describe how fossils are formed, using words, pictures or a model.</p> <p>Investigate soils from the local environment, making comparisons and identifying features.</p>
Knowledge	<p>Know about the importance of a nutritious, balanced diet</p> <p>Know humans need to stay hydrated.</p> <p>Know animals, including humans, have to get nutrition from what they eat and cannot make their own food.</p> <p>Know about the skeletal and muscular system of a human.</p>	<p>Know that water is transported within plants.</p> <p>Know the plant life cycle, especially the importance of flowers.</p> <p>Know the function of different parts of flowering plants and trees.</p>	<p>Know about the importance of a nutritious, balanced diet</p> <p>Know humans need to stay hydrated.</p> <p>Know animals, including humans, have to get nutrition from what they eat and cannot make their own food.</p>	<p>Know an object will not move unless a pushing or pulling force is applied.</p> <p>Know that some forces require direct contact whereas other forces can act from a distance e.g. magnetic force.</p> <p>Know that magnets have two poles (north and south) and that opposite poles attract each other whilst like poles repel each other.</p> <p>Know that some materials have magnetic properties.</p> <p>Know that magnetic materials are attracted to magnets. All magnetic materials are metals but not all metals are magnetic. Iron is a magnetic metal.</p>	<p>Know darkness is the opposite of brightness and is the absence of visible light.</p> <p>A light source gives out light and can be natural or artificial.</p> <p>Light can be absorbed, reflected or both.</p> <p>A smooth and shiny material reflects light and a rough dull material absorbs light.</p> <p>Know that sunlight contains UV light which can damage our eyes and skin.</p> <p>Know that not all sunglasses protect the eye.</p> <p>Know that shadows are formed when light is blocked by an opaque object.</p> <p>Know how shadow length changes over the course of a day.</p>	<p>Know there are three different rock types: sedimentary, igneous and metamorphic.</p> <p>Know that fossils formed millions of years ago and are the remains of a once-living organism, preserved as rock.</p> <p>Know that soils are made from tiny pieces of eroded rock, air and organic matter.</p> <p>Know which soils are naturally occurring. (clay, sand, silt)</p> <p>Know different areas have different soil types.</p>
Progression	<p>1. Pre unit assessment and Prior learning/foundational knowledge</p> <p>2. LO: identify what makes a healthy, balanced diet and why its important to stay hydrated.</p>	<p>1. Pre unit assessment and Prior learning/foundational knowledge</p> <p>2. LO: know the requirements for life in a variety of plants</p>	<p>1. Pre unit assessment and Prior learning/foundational knowledge</p> <p>2. LO: identify what makes a healthy balance diet.</p>	<p>1. Pre unit assessment and Prior learning/foundational knowledge</p> <p>2. LO: identify how things move on different surfaces – pushes and pull.</p>	<p>1. Pre unit assessment and Prior learning/foundational knowledge</p> <p>2. LO: know and name different sources of light. Know that darkness is the absence of light.</p>	<p>1. Pre unit assessment and Prior learning/foundational knowledge</p> <p>2. LO: observe, describe, compare and group rocks.</p> <p>3. LO: know the 3 main types of rocks.</p>

	<p>3. LO: investigate the importance of a healthy balanced diet and staying hydrated. <b>Retrieval point</b></p> <p>4. LO: know that animals inc humans get nutrition from what they eat through food chains. <b>Retrieval point</b></p> <p>5. LO: identify that humans need the skeleton for support, protection and movement. <b>Investigation</b> – Do people with longer Femurs jump further?</p> <p>6. LO: identify that humans need muscles for support, protection and movement. <b>Retrieval point</b></p>	<p>3. LO: identify and describe the function of different parts of flowering plants <b>Retrieval point</b></p> <p>4. LO: investigate how water is transported through plants – <b>Investigation</b> How does water travel through a plant?</p> <p>5. LO: observe and gather information from dissecting a flower. <b>Retrieval point</b></p> <p>6. LO: Know the life cycle of a plant including seed dispersal. <b>Retrieval point</b></p>	<p>3. LO: understand the importance of staying hydrated. <b>Retrieval point</b></p> <p>4. LO: gather information and reason about what makes a healthy meal</p> <p>5. LO: complete practical enquiries – designing a healthy meal (link to DT) <b>Investigation.</b> <b>Retrieval point</b></p>	<p>3. LO: investigate how forces act on different objects Investigation <b>Retrieval point</b></p> <p>4. LO: investigate and observe how magnets attract and repel – objects and each other.</p> <p>5. LO: know that some forces require direct contact and some can act at a distance <b>Retrieval point</b></p> <p>6. LO: know that magnetic materials are attracted to magnets.</p> <p>7. LO: group, compare and sort magnetic materials. Investigation <b>Retrieval point</b></p>	<p>3. LO: investigate how light can be absorbed, reflected or both – grouping materials accordingly. <b>Retrieval point</b></p> <p>4. LO: identify how shadows are formed</p> <p>5. LO: investigate how shadows are formed and how they change over the day <b>Investigation.</b> <b>Retrieval point</b></p> <p>6. LO: recognise that the sun is dangerous and can damage our eyes. <b>Retrieval point</b></p>	<p>4. LO: Describe how fossils are formed <b>Retrieval point</b></p> <p>5. LO: observe and know what soils are made from.</p> <p>6. LO: know different soils come from different areas and that some are naturally occurring.</p> <p>7. LO: investigate soils from the local area. <b>Investigation</b> <b>Retrieval point</b></p>
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Working Scientifically	Questioning	Measurement	Investigation	Observation
Year 3	Ask questions about the world around them and explain that they can be answered in different ways.	Take measurements in standard units, using a range of simple equipment.	Set up and carry out some simple, comparative and fair tests, making predictions for what might happen.	Make increasingly careful observations, identifying similarities, differences and changes and making simple connections.