



Portfields Primary School Medium Term Plan



Year Group – 2

Subject - **Science**

Topic - **Plants**

Term – **Summer 1**

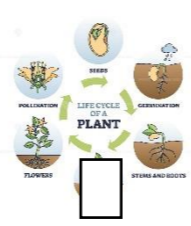
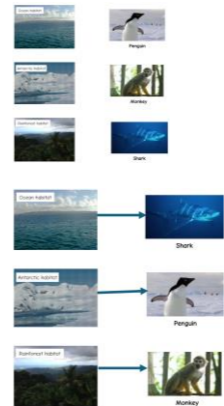

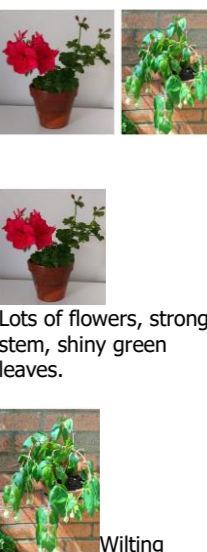
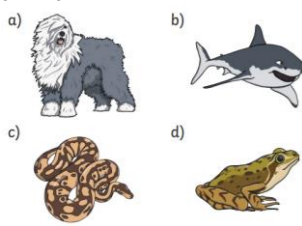

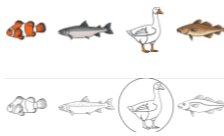
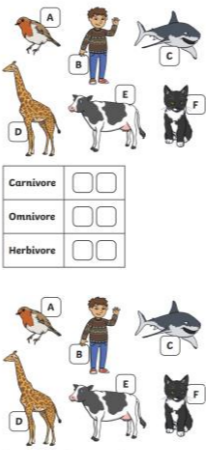

National Curriculum	Key Questions	Substantive Knowledge	Key Vocabulary	Real-Life Links
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> observe and describe how seeds and bulbs grow into mature plants find out and describe how plants need water, light and a suitable temperature to grow and stay healthy 	<ul style="list-style-type: none"> What things do plants need to stay healthy and grow? What does a seed need to begin to grow? What is a life cycle? Do all plants have the same life cycle? Are all plants the same? What happens if a plant does not get sunlight? Where can plants grow? What type of habitat can a specific plant grow in? 	<ul style="list-style-type: none"> Know what plants need to stay healthy Know that plants can grow from seed or bulbs. Understand seeds and bulbs germinate and grow into seedlings. Know that seedlings grow into mature plants Understand plants need light, water, space, suitable temperature in order to grow Know that plants can germinate without sunlight but will eventually die Understand that plants have different features which make them suited to their habitat 	test, scientists, healthy, not healthy, food, food store, seed coat, conditions, baby plant, water, soil, test, observe, observations, compare, grow, healthy, unhealthy, strong, weak, droop, wilt, adapted, species, leaves, roots, stem, spikes, waxy, fleshy, equator, rainforest, desert, mountains, Arctic, oxygen, shallow.	<ul style="list-style-type: none"> School allotment Growing fruit/veg in the garden Forest school Bury Field
Notes and guidance (non-statutory)	Technical Questions			
<p>Pupils should use the local environment throughout the year to observe how different plants grow. Pupils should be introduced to the requirements of plants for germination, growth and survival, as well as to the processes of reproduction and growth in plants. Note: Seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them. Pupils might work scientifically by: observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy</p>	<p>What is nutrition? <i>Nutrition is what all living things need to grow and stay healthy. Animals (including humans) get their nutrition from eating food.</i></p> <p>What is germination? <i>This is when a plant starts to grow from its seed, as a tiny shoot bursts out and begins to grow bigger. This happens when the conditions are right (the plant has everything it needs).</i></p> <p>What is seed dispersal? <i>It is when the seeds move away from the plant, so that they can grow into new plants.</i></p> <p>Are all plants the same? <i>Just like people, plants are all different and they all need different amounts of things.</i></p> <p>If a plant does not get sunlight what will happen once they germinate? <i>Most seeds can germinate without light. Once they have started to grow, they need sunlight to continue to grow and stay healthy. Without sunlight they will eventually die.</i></p> <p>Can plants move? <i>Sunflowers move their flowers so they can face the sun. A Venus flytrap closes its trap when a fly lands on it. When the touch-me-not plant (its proper name is Mimosa pudica) is touched, its leaves curl and droop.</i></p>	Disciplinary Knowledge	Technical Vocabulary	Inventors and Makers
		<ul style="list-style-type: none"> To plan a fair test to investigate what plants need to stay healthy Observe & record the growth of a variety of plants as they change over time from a seed or bulb Set up a comparative test to show that plants need light & water to stay healthy Identify parts of a seed Order the life cycle of a plant Suggest what plants need to grow and stay healthy Identify what changes happen to a plant if it does not have what it needs Observe similar plants at different stages of growth 	Seed, germination, sunlight, water, temperature, roots, shoot, leaves, Life cycle, conditions, flowers, fruit, seed dispersal.	

Lesson Breakdown

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6
<p><u>Learning Objective</u> LO: To design and set up a test to find out what plants need to stay healthy.</p> <p><u>Success Criteria</u> I can identify when a plant is healthy. I can give my ideas about what plants need to stay healthy. I can suggest ways to find out what plants need to stay healthy.</p> <p><u>Star Knowledge</u></p>	<p><u>Learning Objective</u> LO: To look closely at the parts of a seed that will grow into a plant.</p> <p><u>Success Criteria</u> I can identify the parts of a seed that will grow into a plant. I can explain what a seed needs to begin to grow. I can explain what 'germination' means.</p> <p><u>Star Knowledge</u></p>	<p><u>Learning Objective</u> LO: To describe the life cycle of a plant</p> <p><u>Success Criteria</u> I can explain how a plant changes as it grows. I can put the stages of a plant's life cycle in order. I can say which stage of its life cycle a plant is in.</p> <p><u>Star Knowledge</u></p>	<p><u>Learning Objective</u> LO: To explain what plants need to grow and stay healthy.</p> <p><u>Success Criteria</u> I can observe and explain what has happened to the plants in our test. I can suggest what has caused the plants to look like they do. I can suggest what things a plant needs to stay healthy based on my observations.</p> <p><u>Star Knowledge</u></p>	<p><u>Learning Objective</u> LO: To describe what happens if plants do not get all the things they need.</p> <p><u>Success Criteria</u> I can say what a plant looks like if it has not had everything it needs. I can identify a healthy plant and an unhealthy plant. I can suggest what a plant needs to be healthy again.</p> <p><u>Star Knowledge</u></p>	<p><u>Learning Objective</u> LO: To explain how plants are suited to their habitats.</p> <p><u>Success Criteria</u> I can say how plants have different features that make them suited to where they live. I can identify plants that live in hot, dry, cold or wet places. I can explain how I know which type of habitat each plant grows in.</p>

<p>Plants can grow in nearly every habitat on earth.</p> <p>All living things grow.</p>	<p>Plants make new plants by using their seeds or bulbs.</p> <p>Plants do not need to eat food like we do because they make their own food. Their leaves catch sunlight to help to do this.</p> <p>Plants also get some nutrients from soil.</p>	<p>Seed dispersal is when the seed moves away from its plant. Seeds can be dispersed in many different ways. Moved by the wind or by animals eating the fruit and dropping the seed in their poo!</p> <p>Different types of plants can have slightly different life cycles.</p>	<p>Plants need water, air, light, the right temperature and space to grow well.</p>	<p>Most seeds can germinate without light. Once they have started to grow, they need sunlight to grow well and will eventually die without it.</p>	<p>Star Knowledge Plants that grow in hot, dry places usually have small, fleshy leaves that hold water</p> <p>Plants that grow in cold places move to follow the sun with their flowers, so that they get enough sunlight</p> <p>Plants that grow in very wet, warm places (such as rainforests) have large, waxy leaves with pointy tips that the rain can easily run off.</p>
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Summer 1 – Plants– Flashback Four

Lesson 1		Lesson 2		Lesson 3		Lesson 4		Lesson 5		Lesson 6																			
	<p>Last Topic Y2 Living things L1 Which basic need to survive is missing?</p> <p>food, water, air, shelter, suitable temperature, room to grow.</p> <p>Sunlight</p>	<p>Last Lesson Y2 Plants L1 What else do plants need to stay healthy?</p> <p>water, light, air and space</p> <p>Soil</p>	<p>Last Topic Y2 Living things L2 Where do animals and plants live?</p> <p>A habitat</p>	<p>Last Lesson Y2 Plants L2 What is seed dispersal?</p> <p>It is when the seeds move away from the plant, so that they can grow into new plants</p>	<p>Last Topic Y2 Living things L3 Which habitat would a fox live in?</p> <p>woodland, ocean, rainforest, desert, arctic</p> <p>Woodland</p>	<p>Last Lesson Y2 Plants L3 Which part of the plant life cycle is missing?</p>  <p>Leaves</p>	<p>Last Topic Y2 Living things L4 Match the habitat with the animal</p> 	<p>Last Lesson Y2 Plants L4 Why does this plant look like this?</p>  <p>No sunlight</p>	<p>Last Topic Y2 Living things L5 What word is this the description of?</p> <p>Living things in a habitat depend on each other. This means they need each other to stay alive.</p> <p>dependency</p>	<p>Last Lesson Y2 Plants L5 Which plant is healthy? How do you know?</p>  <p>Lots of flowers, strong stem, shiny green leaves.</p> <p>Wilting stem, dull dry crispy leaves.</p>	<p>Last Topic Y2 Living things L6 What is a producer?</p> <p>Each food chain starts with a green plant. Green plants are called producers because they produce their own food.</p>																		
<p>Last Year Y1 Animals L1 Write the name of each animal:</p> 	<p>Previous Key Stage</p>	<p>Last Year Y1 Animals L2 Match the animal to the correct group:</p> <p>Mammal, fish, reptile, bird, amphibian</p> 	<p>Previous Key Stage</p>	<p>Last Year Y1 Animals L3 Which animal is the odd one out?</p> 	<p>Previous Key Stage</p>	<p>Last Year Y1 Animals L4 Sort these animals by what they eat:</p>  <table border="1"> <tr><td>Carnivore</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Omnivore</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Herbivore</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table> <table border="1"> <tr><td>Carnivore</td><td>C</td><td>F</td></tr> <tr><td>Omnivore</td><td>A</td><td>B</td></tr> <tr><td>Herbivore</td><td>D</td><td>E</td></tr> </table>	Carnivore	<input type="checkbox"/>	<input type="checkbox"/>	Omnivore	<input type="checkbox"/>	<input type="checkbox"/>	Herbivore	<input type="checkbox"/>	<input type="checkbox"/>	Carnivore	C	F	Omnivore	A	B	Herbivore	D	E	<p>Previous Key Stage</p>	<p>Last Year Y1 Animals L5 What group would the animal belong to? Read the description:</p> <p>Mammals, reptiles, fish, amphibians, birds</p> <p>1) live in water as a baby and on land as an adult/smooth, slimy skin</p> <p>2) scales on skin/breathe air</p> <p>1 = amphibian 2 = reptile</p>	<p>Previous Key Stage</p>	<p>Last Year Y1 Animals L6 Match the animal to its habitat:</p>  <p>arctic ocean woodland desert</p> <p>woodland arctic desert ocean</p>	<p>Previous Key Stage</p>
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