
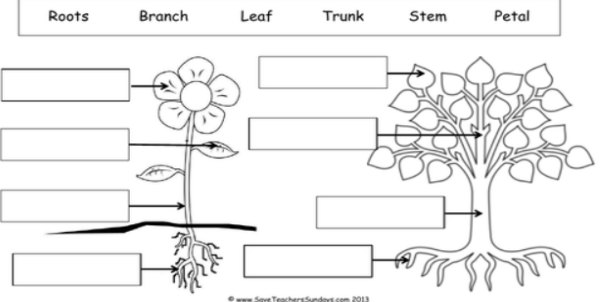


Science – Plants continued

Term 6	Learning Question & NC Link	Substantive Knowledge To know that...	Disciplinary Knowledge I can...	Vocabulary	Assessment opportunity	Equipment & resources	Lesson ideas
<p>Session 1</p> <p>Asking simple questions and recognising they can be answered in different ways</p>	<p>What are the basic parts of the plant? What is the function of each part of the plant?</p>	<p>To know the basic structure of plants (see vocab for parts to teach) and what part of the plant is above the ground and part below the ground.</p> <p>To know the function of what each part does e.g. the roots anchor the plant to whatever it is growing on. (Build upon this from year 1 – further embedding this knowledge)</p>	<p>To use their observations and ideas to suggest answers to questions.</p> <p>To be able to observe closely using simple equipment.</p>	<p>Seed, flower, roots, anther, stigma, petals, leaves, stem, fruit, branch, trunk, function, transport, sunlight, carbon dioxide.</p>	<p>Questions throughout the lesson. Record as pupil voice in science books. On post-its or in inverted commas.</p>	<p>Ipad/camera Science books Lab coat Science sign Science bag (Place a piece of science equipment in each week or something relevant to the lesson)</p>	<p>This is not a lesson plan – just possible/suggested ideas. Draw and label a plant – Use close observation skills to observe real plants if possible. Large flowers like lillies are especially good for this. Talk about the different parts. Recap basic parts of plants – roots, seeds, flowers, leaves. Place under the visualiser or have flowers on the tables for the children to look at.</p>   <p>You could dissect a flower as above.</p> <p>Does the plant have buds – what is a bud? What is a shoot? What other parts can they identify?</p> <p>Recap parts of a tree – trunk, leaves, roots, fruit.</p> <p>Complete a labelling activity e.g. EXT: What other parts can you label?</p> <p>What is the function of each part? https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/zvvhxbk#:~:text=The%20roots%20keep%20the%20plant,into%20food%20for%20the%20plant. The above link has some useful information and videos.</p> <p>Children could record some of the functions in their books too. e.g. Roots absorb minerals. ... Plants have different parts to them, just like you. ... The stem transports water around the plant. ... Leaves make food for the plant from carbon dioxide in the air and sunlight. Stems help support the plant and keep it upright. ... Petals attract insects to the plant.</p>
<p>Session 2</p> <p>Observing</p>	<p>Do plants need light to grow?</p>	<p>To know the basic needs of a plant. To know that plants need water, light and a suitable temperature to grow and stay healthy. To know and apply the scientific vocabulary to talk about what they have found out. To know what seeds and bulbs need to grow healthily.</p>	<p>To be able to observe and describe how seeds grow into mature plants. To be able to find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. To be able to perform a simple test.</p>	<p>Light, cress, survive, observe</p>	<p>Questions throughout the lesson. Record as pupil voice in science books. On post-its or in inverted commas.</p>	<p>Science books Lab coat Science sign Science bag Science books Lab coat Science sign Science bag Cress seeds or plants</p>	<p>Do plants need light to grow? – Investigation You could grow cress in the light and dark – cress grows quickly so is quite good to use or you could use a couple of small plants. Place a sample in a dark place and light place. Observe the changes over time. Should we still water the plants?</p> <p>Encourage the children to predict what they think will happen. They could draw their predictions and label to describe how it will grow/not grow. What colour will it grow?</p> <p>Compare the 2 samples after a few day/1 week.</p> <p>Refer to science poster – investigation over time.</p>

<p>Session 3</p> <p>Using their observations and ideas to suggest answers to questions.</p>	<p>Do plants need warmth to grow?</p>	<p>To know the basic needs of a plant. To know that plants need water, light and a suitable temperature to grow and stay healthy. To know and apply the scientific vocabulary to talk about what they have found out. To know what seeds and bulbs need to grow healthily.</p>	<p>To be able to observe and describe how seeds grow into mature plants. To be able to find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. To be able to perform a simple test.</p>	<p>Light, warmth, grow, temperature, healthy,</p>	<p>Questions throughout the lesson. Record as pupil voice in science books. On post-its or in inverted commas.</p>	<p>Science books Lab coat Science sign Science bag Cress seeds or small plants</p>	<p>Look at samples from last week's investigation – record observations in book and compare with their predictions. Draw a conclusion about if plants need light to grow? (Plants need light to grow healthily)</p> <p>Do plants need warmth to grow? – Investigation Will we still need to water the plant? Give it light?</p> <p>Repeat last week's investigation, drawing on the knowledge the children gained from carrying out the experiment last week. What did we do? What did we find out?</p> <p>Introduce today's investigation, again this will need to be over time. How can we find out if plants need warmth to grow? Where can we place the plant/cress samples? (fridge/sunny window)</p> <p>Record predictions in books using drawings, labels and/or brief explanation.</p>
<p>Session 4</p> <p>Gather and record data to help in answering questions</p>	<p>Where do plants grow best?</p>	<p>To know and describe the basic conditions for plant growth. To know that plants need water, light and a suitable temperature to grow and stay healthy. To know and apply the scientific vocabulary to talk about what they have found out. To know what seeds and bulbs need to grow healthily.</p>	<p>To be able to perform a simple test.</p>	<p>Over time, hydroponics, healthy, grow, soil, cress, survive, adapt.</p>	<p>Questions throughout the lesson. Record as pupil voice in science books. On post-its or in inverted commas.</p>	<p>Science books Lab coat Science sign Science bag Beans Clear containers Sand, soil, stones</p>	<p>Look at last week's investigation over time – what has happened to the plants/cress samples? Any change? Did they grow? How are they different?</p> <p>Draw a conclusion about if plants need warmth to grow. What have we learnt?</p> <p>Research where plants grow – e.g. desert, ponds and rivers, on rocks. What type of plants grow where and how do they survive – link to previous learning about animals and how they adapt to their surrounding in order to survive.</p> <p>Introduce today's question – Where do plants grow best?</p> <p>Refer back to the bean in the bag – did the bean grow? When plants grow in water we call this.... hydroponics.</p> <p>Using beans devise an investigation with your class where the children decide what different materials the bean will grow in e.g. sand, soil, stones, water etc.</p> <p>Suggestion – use plastic cups or bottles so that the children can see when the bean germinates and what changes happen along the way.</p> <p>Take a photo of the experiment that has been set up in the main teach for the children. Ask them to label and write about what they think will happen and why, using their previous knowledge of the experiments carried out so far.</p>
<p>Session 5</p> <p>Performing simple tests</p>	<p>Can you regrow vegetables?</p>	<p>To know the basic needs of a plant. To know that plants need water, light and a suitable temperature to grow and stay healthy. To know and apply the scientific vocabulary to talk about what they have found out. To know what seeds and bulbs need to grow healthily.</p>	<p>To be able to perform a simple test.</p>	<p>Sprout, root, shoot, leaves, healthy, vegetables, regrow,</p>	<p>Questions throughout the lesson. Record as pupil voice in science books. On post-its or in inverted commas.</p>	<p>Science books Lab coat Science sign Science bag Vegetable tops</p>	<p>Plants grow from seeds but can you regrow other parts of the vegetable. Get the children to make suggestions as to what will happen to the vegetables....Draw what they think the vegetable will look like when it regrows....will it look the same? Can you see any new growth? What is growing - the shoots, leaves or roots</p> <div data-bbox="1863 1297 2504 1474"> </div> <p>Instructions</p> <ol style="list-style-type: none"> 1 Carrot - Place the top cut-off end of a carrot in a shallow bowl of water. The green leaves will shoot from the top. Keep inside and place in a sunny spot. 2 Celery - Cut off the bottom 8cm of the stalk and place in a small bowl of water. After 3 or 4 days it will start to grow from the centre of the celery. Keep inside and place in a sunny spot. 3 Lettuce - Cut off the bottom of the head of lettuce and place it in a small bowl of water. It will start to regrow in around 3 days. Keep inside and place in a sunny spot. 4 Spring Onion - Use the white part of the onion, with any roots still intact. Place in a glass with water and it will start to grow. Keep inside and place in a sunny spot. <div data-bbox="2546 1255 2766 1432"> </div> <div data-bbox="2665 1453 2825 1663"> </div> <div data-bbox="2665 1684 2884 1852"> </div>

Notes

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