Year 1 – Plants



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| National Curriculum Outcomes: Knowledge* Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
* Identify and describe the basic structure of a variety of common flowering plants, including trees
 | National Curriculum Outcomes: Working Scientifically* Asking simple questions and recognising that they can be answered in different ways
* Observing closely, using simple equipment
* Performing simple tests
* Identifying and classifying
* Using their observations and ideas to suggest answers to questions
* Gathering and recording data to help in answering questions
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| Children might work scientifically by:Observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants. Describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants, including trees. Pupils might keep records of how plants have changed over time, for example the leaves falling off trees and buds opening. Compare and contrast what they have found out about different plants. (*Taken from the National Curriculum*) |
| Links to prior learning**EYFS:** Children talk about the features of their own immediate environment and how environments might vary from one another. They explain why some things occur and talk about changes (Understanding the World) | Links to future learning**Year 2:** 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**Year 3:** Identify and describe the functions of different parts of flowering plants (stem/trunk, roots, leaves and flowers). Explore the requirements of plants for life and growth 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**Year 4:** Recognise that living things can be grouped in a variety of different ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment**Year 5:** Describe the life process of reproduction in some plants and animals**Year 6:** Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics |
| Key VocabularyPlant, wild, flower, stem, trunk, leaf, leaves, root, deciduous, evergreen*Plus the names of some common plants that will be familiar to children, such as daisy, dandelion, sunflower, grass, oak tree, willow conifer (use plants which children will be familiar with from the school grounds)* | Common Misconceptions* Children may think that plants without flowers are not plants, particularly in the case of grass and trees
* Children may think that all trees are the same
* Depending on their own experiences, children may have a very limited idea of what a plant is and what flowers look like
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| Important Scientists**Beatrix Potter** – English Author & Botanist | STEM Career Links**Botanist** (studies plants)**Gardener** (creates and maintains gardens and green spaces)**Horticulturist** (an expert in garden cultivation and management) | Links to real life* How does our outdoor area look different in different seasons?
* Which flower/plant is our favourite to look at?
* Which parts of plants can we eat?
* Which plant is your favourite to eat?
* Which herb is your favourite to smell?
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| Key knowledge/facts that the children need to knowName some garden plants - sunflower, pansy, rose Name some wild flowers - daisy, buttercup, dandelion, nettles, brambles.Name some trees - oak, ash, birch, maple, beech(Note, these are examples, if children learn different ones they will still be at the expected standard, as long as there is variety)Know the difference between evergreen and deciduous Identify and name parts of the plant - roots, stem, leaves, petals, flowersIdentify and name parts of the tree - crown, leaves, twigs, branches, roots, trunk |
| Suggested Enquiry Activities |
| Identifying and Classifying* What is this plant’s name?
* How many different kinds of plants are in our outdoor area?
* Which foods that we eat come from plants?
* What is the name of the parts of the plant?
* Can you sort the parts of the plant into the different groups?
* Children can classify leaves, flowers, and seeds, choosing their own criteria.
 | Simple Comparative Testing* Growing the seeds in different composts.
* Growing seeds in different materials
 | Observation over Time* ‘Adopt’ a tree. Explore how it changes over the year
* Grow some potatoes or other fruit/vegetables
* What will happen if we plant the seeds from our snacktime fruit? Observe how a bean grows in different materials – identifying the different parts
* Observe a tree through the year.
* Observe a trail/patch to identify how plants change through the year.
 | Pattern Seeking* Are all plants green?
* Plants growing at different times of the year – are they the same?
* Does the biggest bean make the biggest beanstalk/sunflower?
* Based on observations, encourage children to identify patterns e.g. after comparing the size of leaves on different plants, children may suggest “bigger plants have bigger leaves.”
 | Research using Secondary Sources* Find out about plants that grow at different times of the year
* Use secondary sources to name plants (including trees) based on observations of leaves, seeds, flowers, buds, and bark (Leafsnap UK on Apple App Store, SEEK INaturalist on google play and Apple App Store, textbooks, Woodland Trust resources).
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| **National Curriculum Statements** | **Outdoor Learning Activities** |
| * Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.
* Identify and describe the basic structure of a variety of common flowering plants, including trees.
 | Pupils use identification charts to name wild and garden plants, and deciduous and evergreen trees in the playground or local environment.Pupils observe trees in the playground or local environment over the year to see how they change.Pupils identify the parts of a range of plants in the playground or local environment.Pupils describe and make careful drawings of the parts of a range of plants in the playground or local environment.Pupils take photographs or collect samples of parts of plants in the playground to sort and group. |

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| Wow Factor Experiences* ‘Adopt’ a tree and visit it at different points in the year to see how the leaves have changed, how/if the size has changed or any other differences such as the appearance of blossom or an increase in insect life
* Grow your own fruit, vegetables or herbs then eat them! Potatoes, carrots, spring onions and cucamelons will grow well from scratch. Strawberries, blueberries and blackberries do well from established plants and tomatoes will grow very well if you’re lucky enough to have a greenhouse to put them in! (See the links below for organisations that will send out free growing kits)
* Explore a local park or nature reserve in different seasons and compare the different plants that can be seen and how these change over time. Take photographs for comparisons from trip to trip
* Make models of plants using a range of different materials such as recycled packaging, clay or pasta shapes
* Create leaf and bark rubbings
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| Maths Links* Measure the height of plants grown in the classroom or outdoor area
* Count and create a tally chart showing the different numbers of wildflowers in the school grounds in different seasons. This could also be turned into a bar chart
 | Literacy Links* Write a set of instructions for creating a healthy salad or fruit kebab
 | Broader Curriculum Links**Art:** Create art using natural objects**Design Technology:** Practise food preparation skills by making a healthy salad and/or fruit kebab |
| Story LinksTen Seeds – Ruth Brown The Enormous TurnipOliver’s Vegetables – Vivian French Jack and the Beanstalk |
| Helpful WeblinksAssessment exemplification (could also be useful with planning ideas) – <https://www.planassessment.com/product-page/examples-of-work-y1-plants-shanae>BBC Class Clips (useful videos) – <https://www.bbc.co.uk/bitesize/topics/zpxnyrd>Innocent Big Grow Initiative (Free growing kits) - <https://innocentbiggrow.com/>Online CPD on this topic (free) <https://www.reachoutcpd.com/cources/lower-primary/plants> Grow Your Own Potatoes Project (Free potato growing kits) – <https://www.growyourownpotatoes.org.uk/> STEM Learning’s online resource library for Plants in Year 1 - <https://www.stem.org.uk/resources/community/collection/12534/year-1-plants> |