

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."

Year Group: Year 1&2 Term: Summer 1 (Cycle A) Topic: Plants

National Curriculum Links (Ref: NC 2014)

Pupils in KS1 should be taught to:

- 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.

Working scientifically (KS1 objectives)

- ask simple questions and recognise that they can be answered in different ways
- ②observe closely, using simple equipment
- ②perform simple tests
- 2identify and classify
- ②use observations and ideas to suggest answers to questions
- • gather and record data to help in answering questions

Knowledge and skills objectives	Activity	Differentiation
Lesson 1	Display an image of a flowering plant and a tree on the whiteboard. Activate	SEN/LA: Label the parts of a flowering plant and
I can identify and describe the	children's prior knowledge of plants by asking the following questions:	a tree, using a word bank for support
basic structure of common		
flowering plants, including trees.	Name the parts of a flowering plant.	MA: Label the parts of a flowering plant and a
	Name the parts of a tree.	tree with no word bank.
Working Scientifically	What do you know about plants already?	
I can ask simple questions and	What do all plants need to survive?	HA: Label the parts of a flowering plant and a
recognise that they can be		tree and explain what each part of the flowering
answered in different ways.	Introduction:	plant is for.
	Discuss with the children that all plants need light, water, air and warmth to survive.	
I can use observations and ideas to	Plants are important for our environment because they release oxygen for us to	
suggest answers to questions.	breathe. Plants grow from seeds or bulbs. Some plants can be eaten, such as lettuce,	



A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



I can observe closely, using simple equipment.

Resources

Variety of flowering plants Magnifying glasses Label the parts of a flower and a tree activity sheet tomatoes and cucumber. All fruit and vegetables grow on plants and farmers grow many of the plants we eat. However, some plants can be harmful to people, so we must be careful when picking fruit and berries. Always ask an adult before eating parts of a plant.

Task 1:

Today we will be looking at parts of a flowering plant and a tree. Different parts of a flowering plant have a function (job) which helps the plant to stay alive. Explain that the main parts of a flowering plant are the roots, stem, leaves, petals and flower. Display an image which shows where each part of the plant can be found.

Split children into mixed ability pairs. Give each pair an image of a flowering plant and a tree. Children have two minutes to label the parts, using a word bank to help them. As a class, check their answers and address misconceptions.

Task 2:

Next ask the children what they think each part of the flowering plant is for e.g. why do plants need roots? Children discuss with their partner and feedback answers. Ensure children can explain the following for each part of a flowering plant:

Roots hold the plant in the soil and absorb (soak up) water and nutrients (food). The stem carries water and nutrients from the roots to the rest of the plant. The leaves absorb sunlight which the plant turns into energy to help it grow. The brightly coloured petals attract insects such as bees and butterflies. They survive by drinking the nectar and carry the pollen to other flowers so that more plants can grow.

The flower contains seeds which will be dispersed (spread) by animals and the wind. The seeds land on the ground and a new plant starts to grow.

Ensure the children can discuss the following functions for the parts of a tree: Roots and leaves (see above)

Challenge:

Draw a sketch of one of the flowering plants on your table and label each part. Can you use a magnifying glass to observe more closely and make your observational drawing as realistic as possible?

Plenary

Consolidate the parts of a flowering plant and a tree. Watch the following video and then discuss what we have learnt today:

https://www.bbc.co.uk/teach/class-clipsvideo/science-ks1-ks2-ivys-plant-workshopparts-of-a-plant/zvdkpg8



suggest answers to questions.

SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."

CA	THO	LIC	
AW			ACA?
ZSH		1	EMY
BHITA		1,5	U.S.
41		T	

in their books:

	The trunk supports the tree and functions like the stem of a flower (it carries water and nutrients). Branches are smaller stems of the trunk where the leaves grow. They also carry water and nutrients. After some trees have blossomed, fruit will grow which contains seeds for new trees. Some trees have cones which contain seeds. Children quiz their partner by asking questions e.g. why does a plant need roots? What are the petals for? Why are insects attracted to the flower? Task 3: Provide children with a flowering plant on each table. Give out magnifying glasses so they can look at them more closely. Can they identify and name the parts of a plant we have talked about today? Discuss how the shape of the leaves and colour of the petals are all different and unique. Why do you think that is? (some plants have grown flatter, larger leaves to absorb more sunlight, the petals are all different colours to attract as many different insects as possible. Some insects prefer nectar from certain flowers).	
Lesson 2	Starter questions:	SEN/LA: Sort the deciduous and evergreen trees
I can identify and name a variety	Name the parts of a flowering plant. What is their function (job)?	and label them.
of deciduous and evergreen trees.	What are the parts of a tree?	
	What do all plants need to survive?	MA: Sort the deciduous and evergreen trees and
	Discuss with talk partners before discussing as a whole class.	label them. They write a sentence to explain the
Working Scientifically:	Introduction:	difference between deciduous and evergreen
	Explain that today we will be looking at different types of trees. Watch the video	trees.
I can identify and classify.	about deciduous and evergreen trees:	
	https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-	HA: Sort the deciduous and evergreen trees and
I can use observations and ideas to	are-plants-the-same-all-year-round/zdvct39	label them, then answer the following questions



A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Resources

Variety of deciduous and evergreen leaves.
Tree finder sheet
Tree sorting activity

Ask the children these questions:

What is a deciduous tree? What time of year deciduous trees start to lose their leaves? Why do deciduous trees lose their leaves? What is an evergreen tree? Why don't evergreen trees lose their leaves in Winter?

Describe the annual cycle of a deciduous tree, linking it to what the children know about the seasons:

Spring – new buds form and blossom appears, leaves start to grow Summer – fruit grows on some trees and cones grow on others. The fruit and cones contain seeds from which new plants can grow.

Autumn – the leaves turn brown, orange, red and yellow, then the tree loses its leaves Winter – the tree lies dormant (it's sleeping) to save energy over Winter before the whole growing cycle starts again

Deciduous trees lose their leaves in Autumn. This is because they protect the more delicate parts of themselves such as the trunk and the branches. The leaves get blown off or damaged in the bitter (cold) conditions.

Evergreen trees don't lose their leaves and are green all year round. This is because they have a waxy coat on their trunks and branches. Their leaves can handle the cold and their thinner shape prevents (stops) water loss.

Task 1

Children go for a tree hunt on the school grounds. In pairs, children identify the leaves they have collected by matching them to the photos on the tree hunt activity sheet. Discuss which was the most common. Invite the children to share any leaves they collected that were not on the tree hunt activity sheet.

Task 2

Children sort the leaves into two groups: deciduous or evergreen. They should be able to discuss the characteristics of the leaves e.g. evergreen leaves are usually thin and pointy, deciduous leaves are broader (flatter) and rounder.

What is a deciduous tree? Why do they change in Winter? What is an evergreen tree? How are they prepared for Winter? How can you tell the difference between a deciduous and evergreen tree?

Challenge:

Complete the deciduous and evergreen tree quiz.

Plenary

Ask the children the following questions: What is a deciduous tree? What is an evergreen tree? How can we tell the difference between them? Name some common trees.



A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Lesson 3

I can identify and name a variety of wild plants and garden plants.

Working Scientifically:

I can identify and classify.

I can use observations and ideas to suggest answers to questions.

I can observe closely, using simple equipment.

I can ask simple questions and recognise that they can be answered in different ways.

Variety of garden and wild plants for the children to look at Magnifying glasses Wild and garden plant worksheets <u>Starter activity</u>: Recap learning from previous lessons using the retrieval challenge grid.

Explain that today we will be identifying and naming wild plants and garden plants. Discuss what makes plants 'wild'. Point out that if a wild plant grows in a garden it can be called a weed. Ask the children to name any weeds they are familiar with e.g. dandelions, nettles, brambles. Weeds are 'pests' (annoying things which attack other plants). They grow very quickly and smother other plants to get the most light, nutrients and water. They often have defence systems that protect them from being eaten by animals or picked by people e.g. thorns or leaves that sting.

Show images of wild plants and garden plants. Discuss the shape, size and distinguishing features of these plants. Is there a way to tell if a plant is wild or if it comes from a garden?

Task 1

Provide children with a variety of plants and allow them time to observe more closely using a magnifying glass. Can they identify and name the parts of a flowering plant that we looked at in lesson 1?

Task 2

Children look at the wild and garden plants images. Partner A chooses a plant and partner B has to guess which plant it is by asking yes/no questions e.g. is it a garden plant? Does it have pointy leaves? Does it have purple flowers?

<u>SEN/LA:</u> Sort the garden plants and wild plants and label them.

MA/HA: Sort the images of the garden plants and wild plants by drawing them in the correct box and labelling them (links to observational drawing techniques practised in art lessons).

Challenge:

Children generate their own questions about plants e.g. why do some wild flowers have thorns? When do flowering plants start to grow in the garden? Why do some plants grow from bulbs?

Plenary

Children complete the 'speak like a scientist' activity to review all vocabulary learnt in this unit.



A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."



Resources

Applied Write Opportunities:

N/A – Not enough time to complete applied write (only three science lessons due to May bank holiday and 4 week term for Summer 1).

Enrichment Opportunities:

Visit Quarry Bank Mill to look at trees and plants in the local area.

Key Vocabulary

Tier 2: seed, bulb, cone, fruit, roots, stem, flower, petals, leaves, bud, trunk, branches, blossom grow, wild, garden, deciduous, evergreen, water, sunlight, nutrients, pest, weed, survive

Tier 3: identify, classify, record, compare, explain, discuss, observations, questions