

Year 3

Science

# Working Scientifically - Plants

## Key Vocabulary and Phrases

ask questions	Use the question words <b>What, where, when why, how</b>
variable	Something that you are able to change or adapt for example, temperature, position, size
compare and contrast	Look at two or more objects and describe similarities (what is the same) and differences (what is different)
sort and group	Organise plants by their features (e.g. colour, size, shape).
observe and describe changes over time	Observe closely the changes of an object (in this case seeds and the growth of plants), and describe the similarities and differences from the start time to the end time.
measure	length using centimetres, mass using grams volume using millilitres Time using second, minutes and hours
diagram	A labelled picture
record	Drawings, diagrams, photos, charts and tables, writing and numbers to show what I have found out.

## What I could investigate

Do plants need room to grow?



How does water transport within plants?



## Equipment I could use

Magnifying glasses for observing closely



Sorting ring to sort seeds



How do seeds disperse?

A diary and calendar to record changes over time



Camera, pencil and paper to record what I find out.



## How I could record my findings

### Table For FAIR TESTING/PATTERN SEEKING

What I Change (Height of slope)	What I measure (Distance travelled)

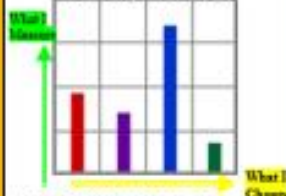
Use this to record your information. You can transfer it into some of the other forms as well. It could be all numerical or words

### Pictures For EXPLORING



Use this if you want to tell the story of what you did or what you observed, e.g. bread going mouldy

### Bar Chart For FAIR TESTING



Use this if you have only 1 set of numerical (continuous) data and the other is words, e.g. type of material and volume of water it can hold

### Venn Diagram For CLASSIFYING/GROUPING



Use this to show how objects are grouped together and any that could be in either group. You can use more than 2 circles or groups, e.g. animals that live on land or on water, with those that do both in the middle

Think about how you could change the one variable.

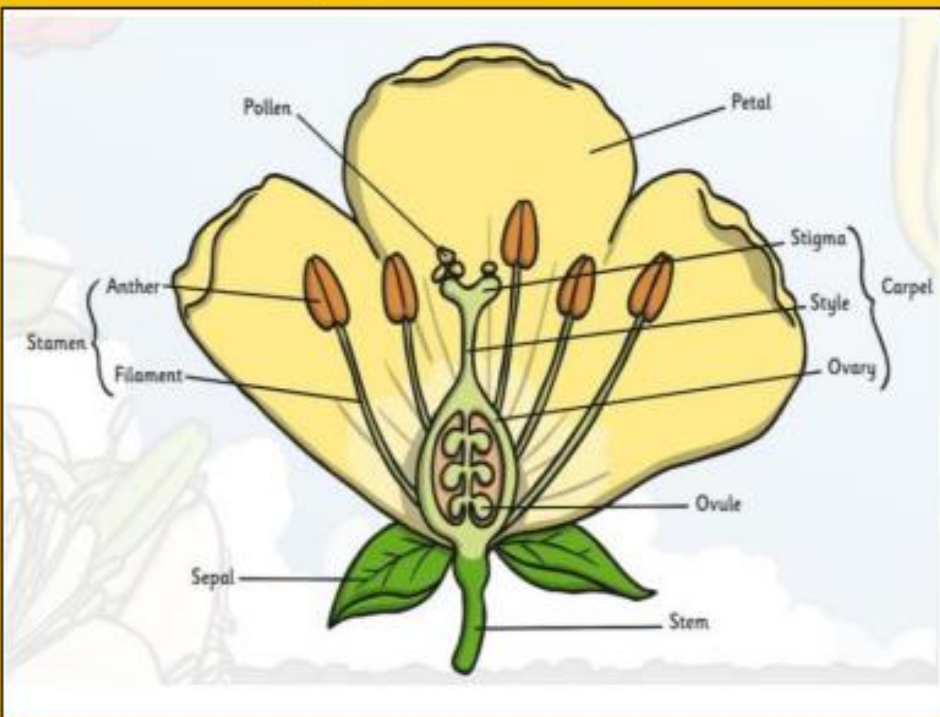


**What We Need to Know**

Functions of the main parts of a plant	<p>Flowers: They have colour and smell to attract insects</p> <p>Leaves: They change carbon dioxide and water into food for the plant and oxygen.</p> <p>Stem: Hold the plant up and carry water from the roots</p> <p>Trunk: The main woody stem of a tree</p> <p>Roots: Hold the plant in the ground and soak up water and minerals.</p>
How plants grow and survive	Plants need light, water, air and nutrients from soil to survive. They also need room to grow which varies from plant to plant.
Parts of a flower	<ul style="list-style-type: none"> <li>• Petal</li> <li>• Sepal</li> <li>• Carpel</li> <li>• Pollen</li> <li>• Stamen</li> <li>• Stem</li> <li>• Ovule</li> </ul>

**Key Vocabulary and Phrases**

Petal	The colourful part at the end of a stem
Stamen	The male part of a flower containing pollen
Carpel	The female part of a flower containing pollen
Fertilisation	When pollen and egg join together to make a seed
Seed Dispersal	Spreading seeds over a wide area
Seed Formation	The way the seed develops and takes shape
Pollen	A powdery yellow substance from the male part of a flower
Pollination	The transfer of pollen to the plant to allow fertilisation.
Nectar	A sweet liquid in flowers that attracts insects



**How do seeds disperse?**

birds	Birds eat seeds but they do not digest them properly so they drop them out in their poo
wind	Some seeds are light enough to be carried in the wind
water	Some seeds travel along rivers and water courses.
explosion	Some seeds burst out of their pods.

**How does pollen get from one plant to another?**

Insects	The insect goes to the first flower looking for nectar. Pollen gets stuck to it, when it goes to another flower the pollen gets stuck to that flower.
Wind	Pollen is blown from one flower to another.