

Unity Federation Knowledge Organiser Have Faith, FLOURISH, Fly High

Barn Owl Class (Year 2/3/4) -Summer 1 2021, Mrs Lucking



Science

- To identify common trees wild and garden flowers in our local area.
- To understand what plants need to survive.
- To name and understand the functions of the main parts of a plant.
- To understand how plants transport water.
- To understand how plants make food.
- To recognise the parts and function of parts of a flower.
- To understand the life cycle of a plant.
- To know that plants disperse seeds in different ways.

Working Scientifically

- Observations over time.
- Designing a fair test.
- Making predictions.
- Recording results in labelled diagrams, tables and charts.
- Measurements over time.

English

Phase 3-5 phonics. Year 2/3/4 spelling rules.

<u>Grammar:</u> Nouns, adjectives, verbs, adverbs, noun and adverbial phrases

Reading:

Weekly whole class reading and comprehension skills

Texts we will be exploring:









Writing

We will be writing:

Nature diaries, fiction, postcards, instructions, poetry

Computing

Animation – life cycles

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<u>Art</u>

Georgia O Keefe – tones and tints

Nature sketches - nature diaries

Printing

PE - planned and delivered by Premier Sport

Implementation:

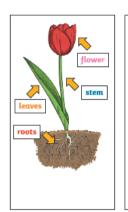
Key words I will learn:

Key Vocabulary				
roots	These anchor the plant into the ground and absorb water and nutrients from the soil.			
stem	This holds the plant up and carries water and nutrients from the soil to the leaves. A trunk is the stem of a tree.			
leaves	These make food for the plant using sunlight and carbon dioxide from the air.			
flowers	These make seeds to grow into new plants. Their petals attract pollinators to the plant.			
nutrients	These substances are needed by living things to grow and survive. Plants get nutrients from the soil and also make their own food in their leaves.			
evaporation	When a liquid turns into a gas.			

Key Vocabula	ry			
fertilisation	When the male and female parts of the flower have mixed in order to make seeds for new plants.			
petal	The brightly coloured part of the flower that attracts insects to pollinate the plant.			
stamen	The male parts of the flower. The stamen is made up of the anther and the filament. The filament's job is to hold up the anther. The job of the anther is to make the pollen.			
carpel (pistil)	The female parts of the flower. Made up of the stigma, style and ovary. The job of the style is to hold up the stigma. The stigma collects the pollen when a pollinator brushes by it. The ovary contains the ovules, which are the part of the flower that gets fertilised and eventually becomes the new seed.			
sepal	Leaf-like structures that protect the flower and petals before they open out.			
pollination	When pollen (a fine powdery substance produced by a flowering plant) is moved from the male anther of a flower to the female stigma.			
pollinator	Animals or insects which carry pollen between plants. Examples include birds, bees and bats.			
germination	When a seed starts to grow.			
seed dispersal	A method of moving the seeds away from the parent plant so that the seeds have the best chance of survival.			

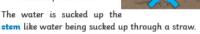
Key Word	Definition		
transpiration	Water escaping through plant leaves.		
photosynthesis	The chemical reaction in plants that allows them to make their own food		
carbon dioxide	A colourless, odourless gas, it is taken in by plants.		
pollination	The process of moving pollen from one flower to another.		
dispersal	The spreading of a plant's seeds over a wide area.		
xylem	A tube that transports water from the roots, through the stems, to the leaves.		
phloem	A tube that transports food and nutrients from the roots, through the stem, to the leaves.		
glucose	A sugar made during photosynthesis.		

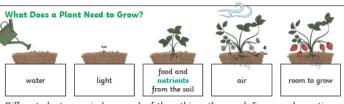
Key facts I will learn.



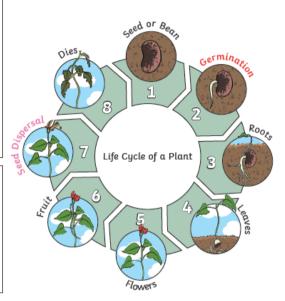
How Water Moves through a Plant

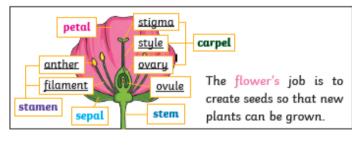
- The roots absorb water from the soil.
- The stem transports water to the leaves.
- 3. Water evaporates from the leaves.
- This evaporation causes more water to be sucked up the stem.

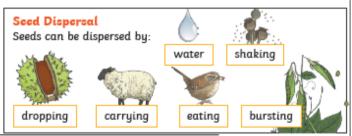


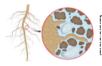


Different plants vary in how much of these things they need. For example, cacti can survive in areas with little water, whereas water lilies need to live in water.







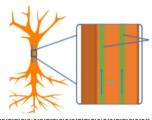


ROOT HAIRS

These are tiny strands on roots which absorb the water and nutrients from the soil

XYLEM and PHLOEM

This diagram shows how the phloem work. They are a bit like veins – they go right from the roots, through the stem, to leaves. They transport water. Phloem are similar, but they move the food and nutrients.



TRANSPIRATION

Water escapes from the leaves, which forces the plant to suck more water up via the xylem to replace what it has lost.

PARTS OF A FLOWER

All these parts are vital. The petal is bright and pretty to attract insects. The anther makes pollen and is held up by the filament. The stigma is sticky to stop the pollen dropping, and this sits on a tall style to make sure the insect can find it!

