



Knowledge Organiser

Science: Light

Year 3/4

Theme: Cause and Effect

Summer Term B

Prior core knowledge

Explore and comment on how colours change
Know that light helps us to see and begin to explore light and dark (linked to day and night)



Core knowledge for this unit

What is darkness?

The absence of light

Where does light come from?

Light comes from two sources: natural light such as the sun and artificial light such as lightbulbs

How do you see in the dark?

You cannot. Objects can only be seen when there is some light present

What properties do reflective materials have?

Reflective objects are shiny so that they reflect light

How does light travel?

Light can only travel in straight lines. It can pass through objects which are transparent

How is a shadow formed? A shadow is formed when an opaque object is placed in front of a light source

How can we protect our eyes from light?

Never look directly at the sun and wear sunglasses where possible

Vocabulary

Light source	An object that gives out light either artificially or naturally
Natural	Something that exists from nature and isn't made by humans
Artificial	Something this is made or produced by human beings
Reflection	Throwing back of light, heat or sound from a surface and a change in direction
Opaque	A material that does not allow light pass through it and an object cannot be seen through it
Transparent	A material that allows light to travel through it and objects can be seen clearly
Translucent	A material that allows some light to travel through it but objects cannot be seen clearly
Shadow	A dark shape that is formed when an object blocks a light source



Knowledge Organiser

Science: Plants

Year 3/4

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Summer Term B

Prior core knowledge

Recognise evergreen and deciduous trees through the seasons

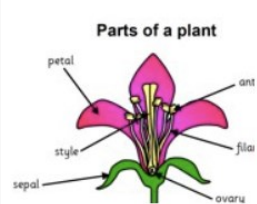
Identify the key parts of a flower/ plant

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

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



Core knowledge for this unit

What are the 4 main parts of the flowering plant?

Roots, stem/trunk, leaves and flowers

What are the 3 things a plant needs to grow?

Light, water and warmth

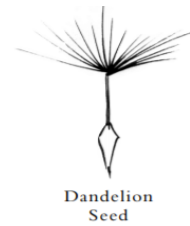
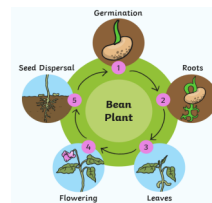
What part of the plant transports water from the roots to the leaves?

The stem

What are the five processes in the life cycle of a plant?

Germination, roots, leaves, flowering, seed dispersal

What are the way



Dandelion Seed



Sycamore Seed

seeds can be dis-

Vocabulary

Root	The part of a plant which attaches it to the ground and transports water and nourishment
Stem	The main body or stalk of a plant that supports the plant
Pollinator	Something, such as an insect, that helps carry pollen in order to pollinate new plants
Seed dispersal	The way the seeds get from the parent plant to a new place
Conditions	The circumstances or factors that affect the way in which something lives
Transportation	The action of moving something from one place to another
Pollination	The transfer of pollen from one plant to another
Germination	The development of a plant from a seed