

# Science Curriculum

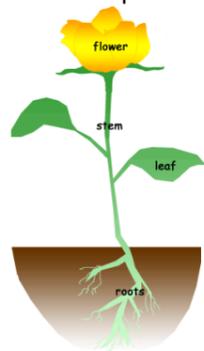
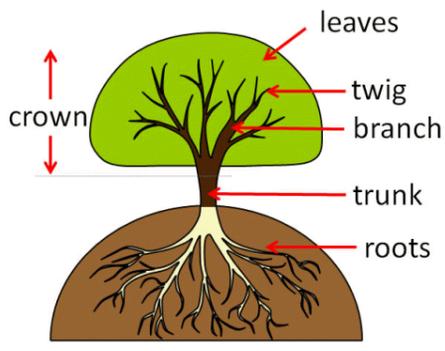
## KS1 Knowledge Organisers

## Knowledge Organiser

Science Strand: Plants Year: A Term: Autumn

Learning Objectives – Knowledge			
C1 - Year R/1	Key Driver	C2 - Year 1/2	Key Driver
To know and taste a range of fruit and vegetables that could be grown in a garden	N/H	To know how to identify a variety of common flowers and trees based on their properties.	N
To know and name a variety of common wild and garden plants	N	To know what a plant looks like and to identify their features and their purpose e.g. where are the roots and what is their job.	N
To know that plants have roots, stem, leaves and flowers	N	To know what a tree looks like and to identify their features and their purpose e.g. where is the trunk and what is its job.	N
To know that most plants grow from seeds	N	To know what plants need to grow (water, light, temperature).	N
To know the names of a variety of trees and discuss their similarities and differences	N	To know about the life cycle of a flowering plant (germination, growth, flowering, seed production).	N
To know what plants need to grow	N	To know how to make observations of a plant growing and identify changes.	N
To know how to observe the changes in a growing plant	N	To know the effect lack of water, light etc can have on the growth of a seed.	N
To know how to use simple equipment to make observations	N	To know how to record our findings using diagrams and scientific language.	N

Key Vocabulary	
Word	Meaning
plant	a living organism of the kind exemplified by trees, shrubs, herbs, grasses, ferns, and mosses
tree	a woody perennial plant, typically having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance from the ground
evergreen tree	an evergreen plant or tree, including most conifers and many broad-leaved plants, as some rhododendrons, hollies, etc.
deciduous	(of a tree or shrub) shedding its leaves annually
garden	a piece of ground adjoining a house, in which grass, flowers, and shrubs may be grown
stem	the main body or stalk of a plant or shrub, typically rising above ground but occasionally subterranean
roots	the part of a plant which attaches it to the ground or to a support, typically underground, conveying water and nourishment to the rest of the plant via numerous branches and fibres:
flowers	the seed-bearing part of a plant, consisting of reproductive organs (stamens and carpels) that are typically surrounded by a brightly coloured corolla (petals) and a green calyx (sepals).
trunk	the main woody stem of a tree as distinct from its branches and roots
leaf	a flattened structure of a higher plant, typically green and blade-like, that is attached to a stem directly or via a stalk
grow	(of a living thing) undergo natural development by increasing in size and changing physically
bark	the tough protective outer sheath of the trunk, branches, and twigs of a tree or woody shrub
wild flower	a flower of an uncultivated variety or a flower growing freely without human intervention
weed	a wild plant growing where it is not wanted and in competition with cultivated plants
change	make or become different
seed	the unit of reproduction of a flowering plant, capable of developing into another such plant
germination	the process by which an organism grows from a seed or a spore.

Useful Diagrams		
Diagram 1	Diagram 2	Diagram 3
<p>Parts of a plant</p> 	<p>Parts of a tree</p> 	<p>Seed germination</p> 

### Useful Websites or Resources

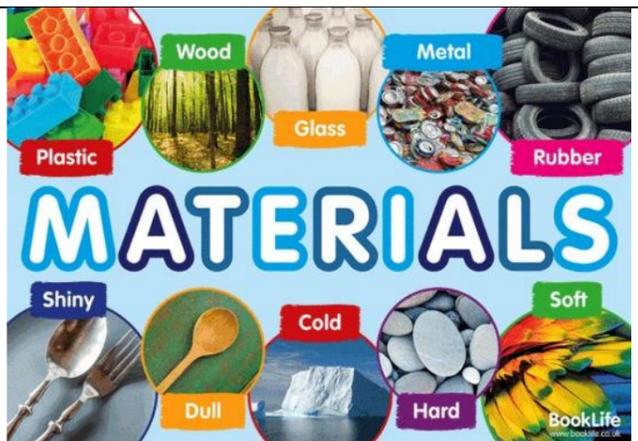
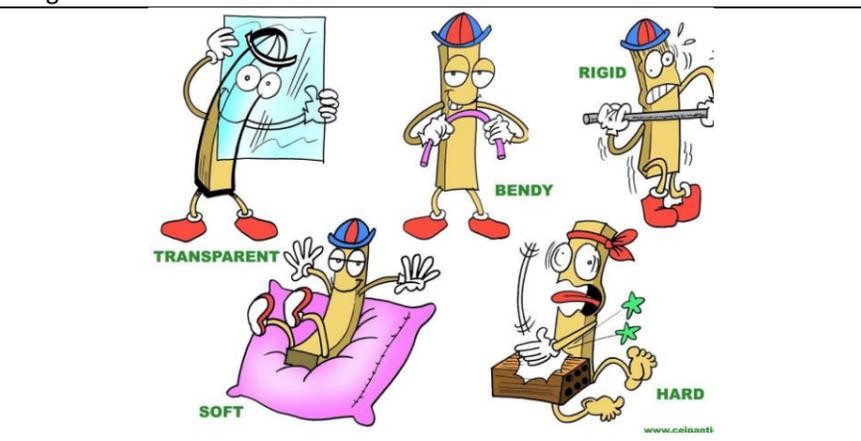
<https://www.bbc.co.uk/bitesize/topics/zpxnyrd>  
<https://www.educationquizzes.com/ks1/science/plants-what-makes-them-grow/>  
<https://www.youtube.com/watch?v=tkFPyue5X3Q> - Germination

**Knowledge Organiser**

**Science Strand:** Everyday Materials **Year:** A **Term:** Spring

Learning Objectives – Knowledge			
C1 - Year R/1	Key Driver	C2 - Year 1/2	Key Driver
To know and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.	N	To know how to identify the material an item is made from and discuss why it is the most suitable.	N
To know about and distinguish between an object and the material from which it is made.	N	To know how to describe the physical properties of everyday materials and group them together based on their properties.	N
To know and describe the simple physical properties of a variety of everyday materials.	N	To know how to compare the suitability of materials based on their properties.	N
To know how to compare and group together a variety of everyday materials on the basis of their simple physical properties.	N	To know how to ask simple questions and perform simple tests with everyday materials.	N
To know how to ask simple questions about the materials around them	N	To know how to record simple data in tables and charts.	N
To know how to plan a simple investigation to test the suitability of a material for a purpose	N	To know how to make predictions by using our knowledge of properties of materials.	N
To know how to use our senses and simple equipment to make observations	N	To know to test the suitability of a material for a purpose (e.g. waterproof)	N
To know how to gather and record data to answer simple questions	N	To know how to use scientific vocabulary to describe what has been found out through simple investigations.	N

Key Vocabulary	
object	a thing that can be used, seen and touched
material	materials are the matter that objects are made from
hard	not easily broken or bent
soft	easy to mold, cut, compress or fold: not hard or firm to touch
stretchy	able to stretch or be stretched easily
shiny	reflecting light, typically because very clean or polished
dull	lacking brightness, vividness or sheen
rough	having an uneven or irregular surface; not smooth or level
smooth	having an even and regular surface; free from perceptible projections, lumps or indentations
bendy	capable of bending; soft and flexible
waterproof	it keeps water out. It keeps things dry.
absorbent	able to soak up liquid easily
transparent	a material or article allowing light to pass through so that objects behind can be distinctly seen
opaque	not able to be seen through, not transparent
wood	the hard material that forms the main substance of the trunk or branches of a tree

Useful Diagrams		
Diagram 1	Diagram 2	Diagram 3
		

Useful Websites or Resources
<p>BBC bitesize <a href="https://www.bbc.co.uk/bitesize/topics/zrsgk7/articles/z9pgcdm">https://www.bbc.co.uk/bitesize/topics/zrsgk7/articles/z9pgcdm</a></p> <p><a href="https://www.bbc.co.uk/bitesize/topics/zrsgk7/articles/z9w26sg">https://www.bbc.co.uk/bitesize/topics/zrsgk7/articles/z9w26sg</a></p> <p><a href="http://www.educationquizzes.com/ks1/science/">www.educationquizzes.com/ks1/science/</a></p>

## Knowledge Organiser

Science Strand: Humans Year: A Term: Summer

Learning Objectives – Knowledge			
C1 - Year R/1	Key Driver	C2 - Year 1/2	Key Driver
To know the names of the basic parts of the human body.	N	To know the human life cycle.	N
To know the names of the five senses and which part of the body it is associated with.	N	To know what humans need to survive.	N
To know about the sense of smell and taste.	N	To know the names of parts of the human body.	N
To know what humans need to survive.	N/H	To know the job roles of parts of the human body (ribs, skull, muscles, bones, skin, brain, heart, lungs) and link body parts to the senses.	N
To know the names and talk about immediate and extended family.	N	To know the effect exercise has on the body.	N
To know what is needed to stay healthy (e.g. exercise, food, vitamins).	N/H	To know how to ask simple questions and make predictions based on previous experiences and knowledge.	N
To know about the different food groups and the importance of eating a well balanced diet.	N/H	To carry out Plan, Do, Review to investigate or make observations.	C
To know how to plan a simple investigation.	N	To know how to record data using simple charts and tables.	C/N
To know how to carry out a simple investigation and record the results.	C/N	To know how to talk about what has been found and identify patterns and relationships.	N
To know the importance of exercise.	N/H	To know the importance of a healthy, balanced diet.	N/H

Key Vocabulary	
human	a human being.
senses	a faculty by which the body perceives an external stimulus; one of the faculties of sight, smell, hearing, taste, and touch.
bones	any of the pieces of hard whitish tissue making up the skeleton in humans and other vertebrates.
muscle	a band or bundle of fibrous tissue in a human or animal body that has the ability to contract, producing movement in or maintaining the position of parts of the body.
skeleton	an internal or external framework of bone, cartilage, or other rigid material supporting or containing the body of an animal or plant.
exercise	activity requiring physical effort, carried out to sustain or improve health and fitness.
predict	say or estimate that (a specified thing) will happen in the future or will be a consequence of something.
record	set down in writing or some other permanent form for later reference.
healthy	in a good physical or mental condition; in good health.
diet	the kinds of food that a person, animal, or community habitually eats.
family	a group of one or more parents and their children living together as a unit
survive	continue to live or exist
life cycle	the series of changes in the life of an organism including reproduction.
organ	a part of an organism which is typically self-contained and has a specific vital function.

Useful Diagrams		
Diagram 1	Diagram 2	Diagram 3

Useful Websites or Resources
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<https://wordwall.net/resource/235893/english/body-parts>  
<https://wordwall.net/resource/3643985/body-parts>