



Caring, Successful,
Happy Learners

Learning Organiser **Science**: There's No Place Like Home

Year 2
Autumn Term

British and School Values				Basic Skills (Reading & Communication)	Personal Development Positive mental and physical well being	Wonderful Words (Vocabulary & Quality Texts)	Memorable Experiences
respect	caring	safety	best				

Working Scientifically					
Questioning	Testing	Observing	Gathering & recording data	Identifying & classifying	Suggesting answers to questions
To explore the world around them and raise their own questions using scientific language with support.	To respond to suggestions about how to find out and communicate this with others.		To learn how to use simple equipment (eg. hand lenses, egg timer) to gather data.	To use simple features to compare objects, materials and living things and decide how to sort and group them. To compare results, looking for similarities and differences. With guidance, notice patterns and relationships.	

Key Substantive "sticky" Knowledge I know...	Key Disciplinary Knowledge & Skills I can...
<p>Plants</p> <ul style="list-style-type: none"> Plants may grow from either seeds or bulbs. These then germinate and grow into seedlings which then continue to grow into mature plants. These mature plants may have flowers which then develop into seeds, berries, fruits etc. 	<ul style="list-style-type: none"> Make close observations of seeds and bulbs. Classify seeds and bulbs. Research and plan when and how to plant a range of seeds and bulbs.

Learning Sequence			
	Substantive knowledge	Disciplinary knowledge objective	Activity
1	Plants may grow from either seeds or bulbs.	WS - To use simple features to compare objects, materials and living things and decide how to sort and group them.	Recap on prior learning... Look at examples of things that have grown from seeds and bulbs. Explore which plants develop into seeds/fruits etc... Whole class matching activity. *Photograph*
2		WS - To explore the world around them and raise their own questions using scientific language with support. Classify seeds and bulbs	What do we want to know? (Scribe for LJ wall) We need to do research – collate questions. *Record questions in mixed groups - mindmap*
3		WS - To learn how to use simple equipment (eg. hand lenses, egg timer) to gather data. Make close observations of seeds and bulbs.	Introduce process of an investigation. Look at range of seeds and bulbs. Plant range of seeds and bulbs in classroom – bags/clear pots/ window. Make prediction. *Scaffold*

		4	Seeds and bulbs germinate and grow into seedlings which then continue to grow into mature plants.	Re-revisit seeds and bulbs planting. Look closely at seeds and bulbs – begin their diary. Draw in books (starting point) – describe/label.
		5	These mature plants may have flowers which then develop into seeds, berries, fruits etc.	WS - To compare results, looking for similarities and differences. With guidance, notice patterns and relationships. Research and plan when and how to plant a range of seeds and bulbs. Re-revisit seeds and bulbs planting. Speech bubble for each group – ‘This week, it has grown...’ Watch video to research and explore which plants develop into seeds/fruits etc...

Prior Knowledge I remember	Wonderful Words Key Vocabulary		Planned Investigation, Experiences and Enrichment
	Known Vocabulary	New Vocabulary	
<ul style="list-style-type: none"> The name of the parts of a plant- root, stem, flower / fruit, leaf. That plants have the same parts but these can look different. Naming, sorting and identifying some common plants and trees. That plants and trees change throughout the year and give examples of these changes. 	<p>Leaves: More than one leaf.</p> <p>Flower/ blossom: The part of the plant that is often brightly coloured.</p> <p>Fruit: Fleshy part of a plant that grows under the ground.</p> <p>Trunk: Large main stem of a tree.</p> <p>Branch: Part of a tree that grows out from the trunk.</p> <p>Stem: The upright main stalk of a plant.</p> <p>Bark: The outer covering of a tree trunk.</p> <p>Bulb:</p>	<p>Germinate: When a seed begins to grow it shoots. Seeds need warmth and water to germinate.</p> <p>Temperature.</p> <p>Seedling: A young plant that has grown from a seed.</p> <p>Bud: Growth on a plant that develops into a stem, leaf or shoot.</p> <p>Nutrition Growth</p> <p>Root: The part of the plant that grows under the ground.</p>	<p>Do ___ seeds grow quicker than bulbs? (Comparative test)</p> <p>School garden area – planting, growing and caring for seeds.</p>

Key Substantive “sticky” Knowledge I know...	Key Disciplinary Knowledge & Skills I can...	Learning Sequence
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<p>Materials</p> <ul style="list-style-type: none"> All objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons. 	<ul style="list-style-type: none"> Classify objects made of one material in different ways e.g. a group of objects made of metal Classify in different ways one type of object made from a range of materials e.g. a collection of spoons made of different materials 		Substantive knowledge	Disciplinary knowledge objective	Activity
		1	All objects are made of one or more materials.		Recap on different common material names Share common materials and name. Recognise and sort objects into similar materials. What do they notice?
		2		WS - To use simple features to compare objects, materials and living things and decide how to sort and group them.	Sort materials into like properties i.e. shiny, soft, and hard and label by property and photograph.
		3		Know the properties of everyday materials. Classify objects made of one material in different ways e.g. a group of objects made of metal	Discussion to identify what various objects are made from. Recap properties and suggest why objects are made from specific materials. Whole class speech bubble.
		4	Some objects can be made from different materials e.g. plastic, metal or wooden spoons.	WS - To respond to suggestions about how to find out and communicate this with others. Classify in different ways one type of object made from a range of materials e.g. a collection of spoons made of different materials	Reveal an object (spoon) discuss what it could be made from and give reasons (record) Research what materials could be made from.
5		WS - To compare results, looking for similarities and differences. With guidance, notice patterns and relationships.	Write simple statements to compare and give reasons what a spoon is made from specific materials.		

Prior Knowledge I remember	Wonderful Words Key Vocabulary		Planned Investigation, experiences and Enrichment
	Known Vocabulary	New Vocabulary	
<ul style="list-style-type: none"> Materials have different properties. Vocabulary associated with properties of materials eg. shiny, rough Properties of common materials (metal, wood, fabric etc.) 	Material Object. Materials: Glass, paper, rock. Property vocabulary: Stretchy, stiff, dull, not bendy, waterproof, not	Property: A characteristic of something. Suitability: Having properties that are right for a specific purpose.	<ul style="list-style-type: none"> Find an object that exists in 3 or more different material forms. (Research)

<ul style="list-style-type: none">• Some materials come in different forms and can have different properties.• Classifying and sorting different materials.• Testing the properties of different materials.	waterproof, transparent, absorbent, not absorbent.	Strong, stiff, opaque, translucent, flexible, reflective, non-reflective.	
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