



St Mark's C of E Primary School: Medium Term Planning

Science: Cycle B Spring Term

KS1

Unit Focus **Uses of Everyday Materials & Seasonal Changes**

Rationale: This unit was not covered in Cycle A. It needs to be taught in Cycle B so that Year 2 will have the necessary knowledge to progress onto identifying properties of rocks, and states of matter in Year 3. The units have been organised so the children will be taught the Year 1 content in the first half of the year and then move onto the Year 2 content in the second part of the year. Seasonal changes will be covered for both winter and spring at this term.

- NC Objectives:
- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
 - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
 - observe changes across the four seasons
 - observe and describe weather associated with the seasons and how day length varies.

Seasonal Changes

Seasonal Changes			
	Learning Objective What is being learned rather than what is being done	Resources Any links to resources.	End-point knowledge What knowledge should children have gained by the end of the lesson? This will be the focus of retrieval activities and monitoring.
1	LO: To observe changes in the weather across winter.	Grammarsaurus https://grammarsaurus.co.uk/portal/	Vocabulary: weather, temperature - Talk about weather in autumn i.e. cold, snowy, frost, fog - Talk about observe how the temperature changes - Talk about the types of clothing worn in winter
2	L.O. To observe the signs of the changes in winter.	Grammarsaurus https://grammarsaurus.co.uk/portal/	Vocabulary: daylight hours, weather, observe - Talk about the changes from autumn to winter i.e. evergreen/ deciduous, animals hibernate, - Talk about how the length of the day is the shortest

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- Compare winter to other seasons

Uses of Everyday Materials- Year 2

3.	L.O. Identify an object and the material it is made from.	Grammarsaurus https://grammarsaurus.co.uk/portal/	Vocabulary: rubber, rock, fabric, paper and brick <ul style="list-style-type: none"> - Name a variety of materials such as wood, metal, plastic, glass, <u>rubber</u>, <u>rock</u>, <u>fabric</u>, <u>paper</u> and <u>brick</u>. (Underlined materials indicate not covered previously.) - Name an object and the material/ materials it is made from - Talk about what an object is made from - Recognise that not all of the same objects are made from the same material depending on its purpose i.e. spoon, cup - Sort objects depending on their material i.e. Venn diagrams - Recognise some objects are made from more than one material i.e. classroom chair is plastic and metal. - Answer simple questions about what they have found out
4	L.O. Investigate and identify suitability of different everyday materials.	Grammarsaurus https://grammarsaurus.co.uk/portal/	Vocabulary: hard, soft, bumpy, fragile, strong, heavy, light, suitability <ul style="list-style-type: none"> - Identify and compare the suitability of a variety of everyday materials to protect Humpty Dumpty - Perform a simple test using equipment. - Answer simple questions about what they have found out.
5	L.O. Investigate the properties of everyday materials	Grammarsaurus https://grammarsaurus.co.uk/portal/	Vocabulary: changeable, unchangeable, stretching, squashing, bending, twisting <ul style="list-style-type: none"> - investigate how we can change materials. - identify materials that can be changed by stretching squashing, bending and twisting. - identify why it might be useful for some materials to change shape. - identify why it might be useful for some materials to be unchangeable
6	L.O. Sort objects and explain the process of recycling	Grammarsaurus https://grammarsaurus.co.uk/portal/	Vocabulary: recycle <ul style="list-style-type: none"> - Compare the uses of everyday materials - Sort materials by if they can be recycled or can not - Investigate how recycled materials can be changed.

Seasonal Changes- 2 lessons

7	LO: To observe changes in the weather across spring	Grammarsaurus https://grammarsaurus.co.uk/portal/	Vocabulary: spring, change, season, weather, temperature - Talk about weather in spring i.e. warmer days, sun, rain, - Talk about observe how the temperature changes - Look closely and record results of the weather and temperature over a week. - Talk about the types of clothing worn in spring
8	L.O. To observe the signs of the changes in spring	Grammarsaurus https://grammarsaurus.co.uk/portal/ Twinkl https://www.twinkl.co.uk	Vocabulary: spring, change, season, daylight - Talk about the changes from winter to spring - Talk about how the length of the day changes - Compare to other seasons i.e. blossom, new life

LKS2- Spring

Unit Focus **Animals Including Humans**

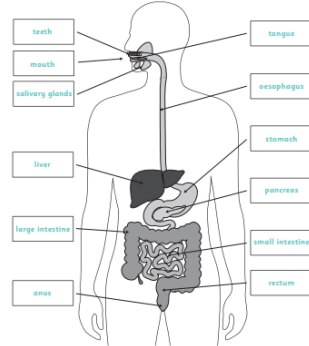
Rationale: This unit was not covered in Cycle A. The units have been organised so the children will be taught the Year 3 content will be taught in the first half of the term and then move onto the Year 4 content in the second part of the term. Children will then have the acquired knowledge to the Year 5 unit.

NC Objectives:

- Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat Primary Resources
- Identify that humans and some other animals have skeletons and muscles for support, protection and movement Primary Resources
- Describe the simple functions of the basic parts of the digestive system in humans
- Identify the different types of teeth in humans and their simple functions
- Construct and interpret a variety of food chains, identifying producers, predators and prey.

Animals Including Humans- Year 3 Unit			
1	LO: To understand where our skeleton is and its function	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- skeleton, bones, vertebrate, invertebrate, spine, skull, pelvis, rib <ul style="list-style-type: none">- Explain how the skeleton is important- Explain how the skeleton protects, supports and helps us move- Name some of the main bones which will help understand the skeleton such as spine, skull, pelvis, ribs
2	L.O. To investigate how our bones help us	Grammarsaurus https://grammarsaurus.co.uk/portal/ https://www.twinkl.co.uk	Vocabulary- protects, supports, movement <ul style="list-style-type: none">- Investigate how the skeleton protects, supports and helps us move.- Plan a simple investigation based on a chosen question.- Carry out a simple investigation and record data- Communicate my results
3	L.O. To understand the purpose of muscles	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- muscles <ul style="list-style-type: none">- Identify how humans use muscles- Understand that we need muscles for support, protection and movement

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4.	L.O. To sort and compare skeletons, recognising similarities and differences.	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- skeleton, bones, vertebrate, invertebrate <ul style="list-style-type: none"> - Identify similarities and differences between the skeletons of different animals. - identify differences between the skeletons of different animals. - Group animals based on whether they are a vertebrate or an invertebrate.
5.	L.O. To recognise and sort the types of nutrition we need	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- nutrition, healthy, unhealthy, diet, balanced, carbohydrates, fats, sugars, proteins, fibre, dairy <ul style="list-style-type: none"> - Explain the need for a healthy balanced diet - Identify foods from the main five food groups - Understand that animals including humans can not make their own food
Animals Including Humans- Year 4 Unit			
1.	L.O. Name the basic parts of the digestive system and describe its function	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- digestion, large intestines, small intestines, stomach, oesophagus, peristalsis, saliva, <ul style="list-style-type: none"> - name twelve main parts of the digestive system - describe their basic functions - label a diagram - use scientific vocabulary for a description.
			
2.	L.O. Identify different teeth and explain their function	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- canines, incisor, molars, <ul style="list-style-type: none"> - Name the different types of teeth found in humans - relate the shape of the teeth to their function.
3. / 4.	L.O. Investigate and present results of	Grammarsaurus https://grammarsaurus.co.uk/portal/	Vocabulary- canines, incisor, molar Plan a simple investigation based on a chosen question: which drink causes the most tooth decay?

	which drink causes the most tooth decay	(Downloaded on Teams)	<ul style="list-style-type: none"> - Carry out a fair, simple investigation and record data - Make accurate observations - Communicate their results - Explain what tooth decay is and how to look after our teeth.
5	L.O. Construct and explain a food chain	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- prey, predator, producer, herbivore, carnivore, omnivore, food chain <ul style="list-style-type: none"> - construct and interpret a variety of food chains - use the terms herbivore, carnivore and omnivore accurately and identify animals in each of these groups - construct food chains and be able to identify the producer, prey and predator in each chain.

UKS2- Spring

Unit Focus **Evolution and Inheritance**

Rationale: This unit was not covered in Cycle A. Building on what they learned about fossils in the topic on rocks in year 3, pupils will find out more about how living things on earth have changed over time.

NC Objectives:

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

Evolution and Inheritance- Year 6 Unit

1.	L.O. Identify how plants are adapted to their environment	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- adaptation, environment, organism <ul style="list-style-type: none">- Explain what adaptation is- Explain how cacti are adapted to live in hot/dry conditions- Explain the features and adaptations of other plants.
2.	L.O. Identify how animals are adapted to their environment	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- adaption, environment, species <ul style="list-style-type: none">- Explain how animals adapt to different environments- relating to diet and habitats- Understand how adaption might lead to evolution i.e. if a more suited animal arrives the original species will have to adapt to survive.
3.	L.O. Explain natural selection and how it may lead to evolution.	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- adaption, natural selection, species, evolve, evolution <ul style="list-style-type: none">- Explain what natural selection is and give examples (moth).- Understand how adaptation and natural selection lead to species changing (evolving) over time in order to survive.
4.	L.O. Explain Charles Darwin's theories on evolution	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- adaption, natural selection, evolution <ul style="list-style-type: none">- Research Darwin and explain his ideas of evolution.- Explain how adaptations lead to evolution

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			- Identify scientific evidence that has been used to support or refute arguments
5.	L.O. Explain natural selection and how it may lead to evolution.	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- adaption, natural selection, evolution - Explain how adaptations lead to evolution - Plan and investigate to answer a question (Comparing which beak is best to pick up a seed)
6.	.	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- adaption, natural selection, evolution - Explain how adaptations lead to evolution - Plan and investigate to answer a question (Comparing teeth to a diet)
7.	L.O. Recognise genetic traits and characteristics that are possible to inherit or those which aren't.	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- gene, inheritance, species - Understand genetic traits are passed on from parents to offspring. - List characteristics that are possible to inherit and characteristics that aren't.
8.	L.O. Understand that fossils can tell us about evolution	Grammarsaurus https://grammarsaurus.co.uk/portal/ (Downloaded on Teams)	Vocabulary- fossils, fossilisation, decompose, evolution, species - Living things have changed over time. - Fossils provide information about things that lived on the Earth millions of years ago. - Describe (briefly) the process of fossilisation - Fossils are often used to support Charles Darwin's theory. - Fossils provide snapshots that scientists use to decide how much (or how little) species have changed over time.

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