



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cycle A 2022/2023		Know that living things can be grouped in a variety of ways – Living things and their habitats	Know about the Sun, Earth, moon and the plants – Earth and Space	Know that some solids, liquids and gases change states – States of Matter. The Water cycle	Know about the life cycles of humans and various animals – Life cycle, including humans	Know exactly what happens to the food we eat – The Digestive system
		<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Use classification keys to group, identify and name living things Know how changes to an environment could endanger living things Group materials based on their state of matter (solid, liquid or gas) <p>Working Scientifically Research Research the effect of climate change on animals around the world</p> <p>Grouping Classify plants/ animals into either</p>	<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Know about and explain the movement of the Earth and other planets relative to the Sun Know about and explain the movement of the Moon relative to the Earth Know and demonstrate how night and day are created Describe the Sun, Earth and Moon (using the term spherical) <p>Working Scientifically</p>	<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Know the temperature at which materials change state Know about and explore how some materials can change state Know the part played by evaporation and condensation in the water cycle <p>Observation over time</p> <ul style="list-style-type: none"> Measure temperature changes in water over time <p>Working Scientifically Research</p> <ul style="list-style-type: none"> Research the water cycle and 	<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Know the life cycle of different living things e.g. mammal, amphibian, insect and bird Know the differences between different life cycles Know the process of reproduction in plants Know the process of reproduction in animals Create a timeline to indicate stages of growth in humans <p>Working Scientifically Research</p>	<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Identify and name the parts of the human digestive system Know the functions of the organs in the human digestive system Identify and know the different types of human teeth Know the functions of different human teeth Use and construct food chains to identify producers,



		producer, consumer or predator	<p>Research</p> <ul style="list-style-type: none"> Research the plants in our solar system, including length of orbit <p>Pattern seeking</p> <ul style="list-style-type: none"> Compare height with physical task e.g., distance a ball is thrown 	<p>how it works</p> <p>Grouping</p> <ul style="list-style-type: none"> Identify solids, liquids or gases 	<ul style="list-style-type: none"> Research changes in humans at different stages in our lives Research the life cycle of different animal groups <p>Grouping</p> <ul style="list-style-type: none"> Classify/group and animal based on its group and species <p>Pattern seeking</p> <ul style="list-style-type: none"> Compare height with physical task e.g., distance a ball is thrown 	<p>predators and prey</p> <p>Working Scientifically Research</p> <ul style="list-style-type: none"> Research the different body parts involved in digestion <p>Grouping and classifying</p> <ul style="list-style-type: none"> Classify plants/animals into either producer, consumer or predator
Cycle B 2023/2024	Know what a force is and how it impacts on the way things move - Forces	Know what electricity is and why it so important in our lives - Electricity	Know how we get to hear things and how sound is created - Sound	Know why we can see and the part our eyes have in helping us see - Light		Know about the function of the heart and the importance of blood in keeping us alive – Circulatory System
	Scientific Knowledge	Scientific Knowledge	Scientific Knowledge	Scientific Knowledge		Scientific Knowledge



	<ul style="list-style-type: none"> • Know what gravity is and its impact on our lives • Identify and know the effect of air and water resistance • Identify and know the effect of friction • Explain how levers, pulleys and gears allow a smaller force to have a greater effect <p>Working Scientifically Fair testing</p> <ul style="list-style-type: none"> • Shape of an object and the time it takes to travel through water <p>Pattern seeking</p> <ul style="list-style-type: none"> • Surface material on a ramp and the distance/speed it travels 	<ul style="list-style-type: none"> • Identify and name appliances that require electricity to function • Construct a series circuit • Identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers) • Predict and test whether a lamp will light within a circuit • Know the function of a switch • Know the difference between a conductor and an insulator; giving examples of each <p>Working Scientifically Fair testing</p> <ul style="list-style-type: none"> • Determine which materials are electrical 	<ul style="list-style-type: none"> • Know how sound is made, associating some of them with vibrating • Know how sound travels from a source to our ears • Know the correlation between pitch and the object producing a sound • Know the correlation between the volume of a sound and the strength of the vibrations that produced it • Know what happens to a sound as it travels away from its source <p>Working Scientifically Fair testing</p> <ul style="list-style-type: none"> • The affect of distance from the source on volume <p>Pattern seeking</p> <ul style="list-style-type: none"> • Compare how length 	<ul style="list-style-type: none"> • Know how light travels • Know and demonstrate how we see objects • Know why shadows have the same shape as the object that casts them • Know how simple optical instruments work e.g. periscope, telescope, binoculars, mirror, magnifying glass etc. <p>Working Scientifically Grouping and Classifying</p> <ul style="list-style-type: none"> • Group materials based on transparency <p>Pattern seeking</p> <ul style="list-style-type: none"> • Compare distance from light source and shadow 		<ul style="list-style-type: none"> • Identify and name the main parts of the human circulatory system • Know the function of the heart, blood vessels and blood • Know the impact of diet, exercise, drugs and lifestyle on health • Know the ways in which nutrients and water are transported in animals, including humans <p>Working Scientifically Fair testing</p> <ul style="list-style-type: none"> • Impact of exercise on the heart rate <p>Research</p> <ul style="list-style-type: none"> • Research how drugs affect the body <p>Pattern seeking</p> <ul style="list-style-type: none"> • Compare resting
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		<p>conductors or insulators</p> <p>Grouping and classifying</p> <ul style="list-style-type: none"> Classify/group materials into electrical conductors or insulators 	<p>and width of tubes affect pitch</p>			<p>heart rate of different people</p>
<p>Cycle C 2024/2025</p>		<p>Understand how electricity works and how its power can vary - Electricity</p>	<p>Understand how all living things are grouped and classified – classification of all living things, including micro-organisms</p>	<p>Know about materials that can or cannot be changed back to their original form once an action has been taken- Irreversible changes</p>	<p>Know how living things on Earth have changed over time – Evolution and inheritance</p>	
		<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Compare and give reasons for why components work and do not work in a circuit Draw circuit diagrams using 	<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Classify living things into broad groups according to observable characteristics and based on similarities 	<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Compare and group materials based on their properties (e.g. hardness, solubility, transparency, conductivity, [electrical & thermal], and response to magnets 	<p>Scientific Knowledge</p> <ul style="list-style-type: none"> Know how the Earth and living things have changed over time Know how fossils can be used to find out about the past Know about reproduction and offspring 	



		<p>correct symbols</p> <ul style="list-style-type: none"> • Know how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer <p>Working Scientifically Fair testing</p> <ul style="list-style-type: none"> • Effect of increasing voltage on the brightness of a bulb <p>Pattern seeking</p> <ul style="list-style-type: none"> • Compare brightness of bulb in series and parallel circuits 	<p>and differences</p> <ul style="list-style-type: none"> • Know how living things have been classified • Give reasons for classifying plants and animals in a specific way <p>Working Scientifically Observation over time</p> <ul style="list-style-type: none"> • Conditions needed for bread to go mouldy <p>Research</p> <ul style="list-style-type: none"> • Research the different types of micro-organisms <p>Pattern seeking</p> <ul style="list-style-type: none"> • Compare resting heart rate of different people 	<ul style="list-style-type: none"> • Know and explain how a material dissolves to form a solution • Know and show how to recover a substance from a solution • Know and demonstrate how some materials can be separated (e.g. through filtering, sieving and evaporating) • Know and demonstrate that some changes are reversible and some are not • Know how some changes result in the formation of a new material and that this is usually irreversible <p>Working Scientifically Fair testing</p> <ul style="list-style-type: none"> • Factors that affect the speed a solute 	<p>(recognising that offspring normally vary and are not identical to their parents)</p> <ul style="list-style-type: none"> • Know how animals and plants are adapted to suit their environment • Link adaptation over time to evolution • Know about evolution and can explain what it is <p>Working Scientifically Research</p> <ul style="list-style-type: none"> • Research Charles Darwin and his work <p>Pattern seeking</p> <ul style="list-style-type: none"> • Compare skulls/ body parts of animals as they have evolved 	
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				<p>dissolves in water, e.g., temperature</p> <p>Observation over time</p> <ul style="list-style-type: none">• Observe over time the separation of a solute and solvent via evaporation <p>Grouping</p> <ul style="list-style-type: none">• Classify/group materials as either soluble or insoluble		
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