

Forest Park Progression map - Science								
	N	R	Y1	Y2	Y3	Y4	Y5	Y6
Autumn 1			Animals including humans	Plants	Plants	Living things and their habitats	Living things and their habitats	Living things and their habitats
Autumn 2			Animals including humans	Animals including humans	Animals including humans	Animals including humans	Forces	Living things and their habitats
Spring 1			Materials	Everyday materials	Forces and magnets	States of matter	Space	Animals including humans
Spring 2			Materials	Revision unit Quiz of units so far, including Y1 seasons	Revision unit Quiz of units so far	Revision unit Quiz of units so far Finish environmental impacts from Aut 1 Revisit Y3 light Revisit Y3 rocks	Revision unit Quiz of units so far Revisit Y4 sound Revisit Y4 electricity	Evolution and inheritance
Summer 1			Revision	Living things and their habitats	Rocks and soil	Electricity	Animals including humans	Electricity
Summer 2			Plants	Living things and their habitats	Light	Sound	Changes of materials	Light
Working scientifically								
Working Scientifically			<ul style="list-style-type: none"> • I can ask simple scientific questions. • I can make observations. • I can follow steps for a simple test. • I can identify and compare things. • I can suggest what I have found out. • I can use my observations to answer questions. 	<ul style="list-style-type: none"> I can ask simple scientific questions and recognise that they can be answered in different ways. • I can use simple equipment to make observations. • I can carry out simple tests. • I can identify and classify things. • I can gather and record data. • I can suggest what I have found out. • I can use simple data to answer questions. 	<ul style="list-style-type: none"> I can ask relevant scientific questions. • I can suggest ways to explore a scientific question. • I can make a prediction. • I can set up a test to compare two things. • I can set up a fair test. • I can make careful and accurate observations. • I can use different equipment to make measurements. • I can use diagrams to show what I have done. • I can record data in tables. 	<ul style="list-style-type: none"> I can ask relevant scientific questions. • I can plan a simple enquiry to explore a scientific question. • I can make a prediction with a reason. • I can set up a test to compare more than two things. • I can set up a fair test and explain why it is fair. • I can make careful and accurate observations, including the use of standard units. • I can use different equipment (including 	<ul style="list-style-type: none"> I can plan different types of scientific enquiry. • I am aware of variables to control in an enquiry. • I can make a prediction with a reason, using previous scientific knowledge. • I can measure using a range of equipment. • I can measure accurately and precisely. • I can draw scientific diagrams and labels, and tables. • I can present data in scatter graphs, bar and line graphs. 	<ul style="list-style-type: none"> I can choose which type of scientific enquiry to use. • I can control variables in an enquiry. • I can use test results to make predictions and set up a further test. • I can measure carefully using a range of equipment and choose which equipment to use. • I can measure accurately and precisely, taking repeat readings when appropriate. • I can draw scientific diagrams and labels,

					<ul style="list-style-type: none"> I can use observations and knowledge to answer scientific questions. I can report my findings verbally. I can report my findings in writing. I can draw conclusions from my results. 	<p>data loggers) to make measurements.</p> <ul style="list-style-type: none"> I can use scientific diagrams and classification keys. I can use tables and bar charts to present my data. I can use observations and my knowledge to answer scientific questions and generate further questions. I can report my findings in different ways, including oral presentations and written explanations. I can draw conclusions from my results and suggest improvements. 	<ul style="list-style-type: none"> I can report findings from enquiries in a range of ways. I can explain a conclusion from an enquiry. I can describe causal relationships in an enquiry. I can read, spell and pronounce scientific vocabulary accurately. 	<p>classification keys and tables.</p> <ul style="list-style-type: none"> I can present data using a range of graphs. I can choose how to report my findings most effectively. I can explain a conclusion from an enquiry, drawing on my prior knowledge. I can state whether evidence supports or refutes an argument or theory. I can discuss the reliability of my results. I can use scientific vocabulary
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Knowledge

Biology	N	R	Y1	Y2	Y3	Y4	Y5	Y6
<p>Animals including humans</p>	<p>Observe animals closely through a variety of means e.g. magnifiers & photographs</p> <p>Talk about things they have seen outside including animals</p>	<p>Describe what they see, hear, smell & feel (senses)</p> <p>Name and describe some animals</p> <p>Understand the key features of the life cycle of</p>	<p>identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals</p> <p>identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>describe and compare the structure of a</p>	<p>notice that animals, including humans, have offspring which grow into adults</p> <p>find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>describe the importance for humans of exercise, eating the</p>	<p>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</p> <p>identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>	<p>describe the simple functions of the basic parts of the digestive system in humans</p> <p>identify the different types of teeth in humans and their simple functions</p> <p>construct and interpret a variety of food chains, identifying producers, predators and prey.</p>	<p>describe the changes as humans develop to old age.</p>	<p>identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>describe the ways in which nutrients and</p>

	Identify familiar animals	<p>several living things e.g. plants, caterpillar, human.</p> <p>Be able to show care and concern for living things</p> <ul style="list-style-type: none"> · Encourage children to observe how animals behave differently as the seasons change 	<p>variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</p> <p>identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p>	<p>right amounts of different types of food, and hygiene.</p>				<p>water are transported within animals, including humans.</p>
Plants	<p>Plant seeds and care for growing plants (concept of growth and decay)</p> <p>Draw pictures of plants</p> <p>Observe plants closely through a variety of means e.g. magnifiers & photographs</p>	<p>Describe what they see, hear & feel whilst outside (senses)</p> <p>Understand the key features of the life cycle of a plant</p> <p>Name & describe some plants</p>	<p>identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>identify and describe the basic structure of a variety of common flowering plants, including trees</p>	<p>observe and describe how seeds and bulbs grow into mature plants</p> <p>find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p>identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</p> <p>investigate the way in which water is transported within plants</p>			

		Understand the effect of changing seasons on the natural world around them (weather and seasonal features)			explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.			
Living things and their habitats	<p>Begin to understand the need to respect & care for the natural environment & all living things</p> <p>Talk about what they see, using a wide vocabulary</p> <p>Understand the key features of the life cycle of a butterfly Observe some of the differences within seasons</p>	<p>Describe what they see, hear, smell & feel whilst outside – focused observation of the natural world</p> <p>Discuss how we care for the natural world around us.</p> <p>After close observation, draw pictures of the natural world, including animals and plants.</p>		<p>explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>describe how animals obtain their food from plants and other animals, using the idea</p>		<p>recognise that living things can be grouped in a variety of ways</p> <p>explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</p> <p>recognise that environments can change and that this can sometimes pose dangers to living things.</p>	<p>describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>describe the life process of reproduction in some plants and animals.</p>	<p>describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>give reasons for classifying plants and animals based on specific characteristics.</p>



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		Know some of the key changes that signify a season.		of a simple food chain, and identify and name different sources of food.				
Evolution								<p>recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>
Physics			Y1	Y2	Y3	Y4	Y5	Y6
Materials	<p>Use all their senses in hands-on exploration of natural materials</p> <p>Explore collections of</p>	<p>Observe & interact with natural processes, such as ice melting, a sound causing a</p>	<p>distinguish between an object and the material from which it is made</p> <p>identify and name a variety of everyday materials, including</p>	<p>identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for different uses</p>				

	<p>materials with similar and/or different properties</p> <p>Talk about what they see, using a wide vocabulary</p> <p>Explore how things work e.g. wheels, water walls, cogs, pegs & boards</p> <p>Explore collections of materials with similar and/or different properties</p>	<p>vibration, light travelling through transparent material, an object casting a shadow, a magnet attracting an object & a boat floating on water.</p> <p>Begin to link cause and effect using relevant vocabulary and ask questions about variables within these processes e.g. how could we stop the ice from melting?</p> <p>Model the vocabulary needed to name specific</p>	<p>wood, plastic, glass, metal, water, and rock</p> <p>describe the simple physical properties of a variety of everyday materials</p> <p>compare and group together a variety of everyday materials on the basis of their simple physical properties</p>	<p>compare how things move on different surfaces.</p> <p>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p>				
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		features of the natural world, both natural & man-made.						
Seasonal change			<p>observe changes across the 4 seasons</p> <p>observe and describe weather associated with the seasons and how day length varies.</p>					
Light					<p>recognise that they need light in order to see things and that dark is the absence of light</p> <p>notice that light is reflected from surfaces</p> <p>recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>recognise that shadows are formed when the light from a light source is blocked by a solid object</p> <p>find patterns in the way that the size of shadows change.</p>			<p>recognise that light appears to travel in straight lines</p> <p>use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</p> <p>explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes</p> <p>use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</p>

<p>Forces and magnets</p>	<p>Explore & talk about different forces they can feel e.g. stretch, snap, rigid, magnetic repulsion, water pushing up when pushing a boat under it</p>				<p>compare how things move on different surfaces</p> <p>notice that some forces need contact between 2 objects, but magnetic forces can act at a distance</p> <p>observe how magnets attract or repel each other and attract some materials and not others</p> <p>compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials</p> <p>describe magnets as having 2 poles</p> <p>predict whether 2 magnets will attract or repel each other, depending on which poles are facing.</p>		<p>explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</p>	
<p>Electricity</p>						<p>identify common appliances that run on electricity</p> <p>construct a simple series electrical circuit, identifying and naming its basic parts, including</p>		<p>associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>compare and give reasons for variations in</p>



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						<p>cells, wires, bulbs, switches and buzzers</p> <p>identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p> <p>recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>recognise some common conductors and insulators, and associate metals with being good conductors.</p>		<p>how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p>use recognised symbols when representing a simple circuit in a diagram.</p>
Earth and space							<p>describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>describe the movement of the Moon relative to the Earth</p> <p>describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>use the idea of the Earth's rotation to explain day and night, and the</p>	



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							apparent movement of the sun across the sky.	
Chemistry			Y1	Y2	Y3	Y4	Y5	Y6
Rocks					<p>compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>recognise that soils are made from rocks and organic matter.</p>			
Sound						<p>identify how sounds are made, associating some of them with something vibrating</p> <p>recognise that vibrations from sounds travel through a medium to the ear</p> <p>find patterns between the pitch of a sound and features of the object that produced it</p> <p>find patterns between the volume of a sound and the strength of the</p>		

						<p>vibrations that produced it.</p> <p>recognise that sounds get fainter as the distance from the sound source increases</p>		
States of matter	<p>Characteristic s of liquids & solids e.g. cooking eggs, melting chocolate, putting salt onto ice cubes</p>					<p>compare and group materials together, according to whether they are solids, liquids or gases</p> <p>observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</p> <p>identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>		
Properties and changes of materials						<p>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</p>		



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							<p>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p>	
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