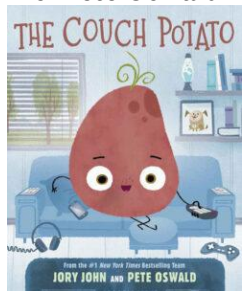
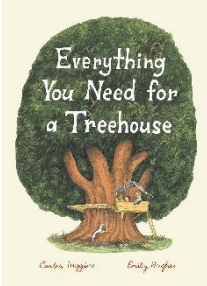

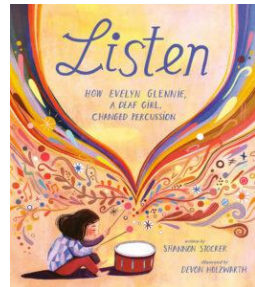
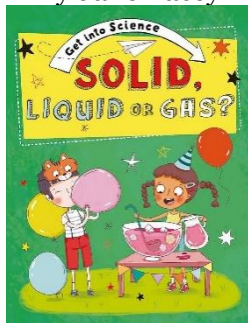
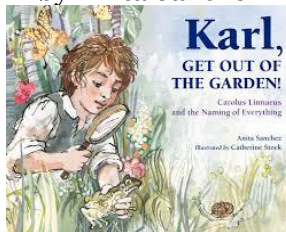


St Joseph's and St Gregory's Progression of Skills and Knowledge in Science

The document below sets out the way in which the Science curriculum will be covered at St Joseph's and St Gregory's Primary School. For information on EYFS please see the separate planning document.

Working scientifically Objectives						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	Animals Including Humans Amazing Me	Brilliant Builders	Forces and Magnets	Sound	Properties and Changes of Materials.	Living Things and Their Habitats
Accompanying text	<p>The Couch Potato by Jory John & Pete Oswald</p> 	<p>Everything you need for a tree house by Carter Higgins</p> 	<p>Magnet Max by Monica Lozano Hughes</p> 	<p>Listen: How Evelyn Glennie, a Deaf Girl, Changed Percussion By Shannon Stocker & Devon Holzwarth</p> 	<p>Get into Science: Solid, Liquid or Gas? By Jane Lacey</p> 	<p>Karl, get out of the garden. by Anita Sanchez</p> 
NC Objectives	<ul style="list-style-type: none"> Know that animals, including humans, have offspring which grow into adults (Year 2) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with 	<ul style="list-style-type: none"> Compare and group together a variety of everyday materials based on their simple properties. (Year 1) Describe the simple physical properties of a variety of everyday materials. (Year 1) 	<ul style="list-style-type: none"> Compare how things move on different surfaces. Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Observe how magnets attract and repel each other and attract 	<ul style="list-style-type: none"> Identify how sounds are made, associating some of them with something vibrating. Recognise that vibrations from sounds travel through a medium to the ear Find patterns between the pitch of a sound and 	<ul style="list-style-type: none"> Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution. Use knowledge of solids, liquids, and gases to decide how mixtures might be separated, 	<ul style="list-style-type: none"> Describe how living things are classified into broad groups according to observable characteristics and based on similarities and differences. Give reasons for classifying plants and animals

St Joseph's and St Gregory's Progression of Skills and Knowledge in Science

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	<p>each sense (Year 1)</p> <ul style="list-style-type: none"> Find out and describe the basic needs of animals, including humans, for survival (water, food and air). (Year 2) Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Year 2) 	<ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Year 2) Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Year 2) 	<p>some materials and not others.</p> <ul style="list-style-type: none"> Compare and group together a variety of everyday materials based on whether they are attracted to a magnet and identify some magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing. 	<p>features of the object that produced it</p> <ul style="list-style-type: none"> Find patterns between the volume of a sound and the strength of the vibrations that produced it Recognise that sounds get fainter as the distance from the sound source increases. 	<p>including through filtering, sieving and evaporating.</p> <ul style="list-style-type: none"> Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes result in the formation of new materials, and this kind of change is usually not reversible, including changes associated with burning and the action of acid on bicarbonate of soda. taking measurements, using a range of scientific equipment – thermometers recording data and results of increasing complexity - line graph reporting and presenting 	<p>based on specific characteristics.</p> <ul style="list-style-type: none"> recording data and results of increasing complexity - classification keys
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St Joseph's and St Gregory's Progression of Skills and Knowledge in Science

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					findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results - floor book page written x2	
Component Knowledge	Year 1 1. Name and locate parts of the human body, including those relating to the senses. 2. Identify and name different common animals including fish amphibians, reptiles, birds and mammals. 3. Describe and compare the observable features of animals from a range of groups.	Year 1 1. Recognise the difference between the name of an object and the material from which it is made. 2. Identify a range of everyday materials including wood, plastic, glass, metal, water and rock. 3. Describe the physical properties of everyday materials including	1. Magnets have 2 poles and work from a distance 2. Attract or repel? (prediction) 3. Investigate – Is it magnetic? (table) 4. How does the ping pong ball move down the slope?	1. How are sounds made? 2. Vibrations from sounds travel through a medium to the ear 3. Investigate the pitch of a sound and the object that made it 4. Patterns between volume of sound and strength of vibration 5. Investigate – What happens if I move further away from a sound?	1. Retrieval – solid, liquid and gas 2. Deepening knowledge 3. Investigate – dissolving, recovering, filtering, sieving and evaporating. 4. Reversible changes 5. Irreversible changes	1. Why classify things? 2. Similarities and differences between animals 3. Branching classification tree 4. Carl Linneaus and the 7 taxonomic levels 5. Classifying animals and explaining reasoning

St Joseph's and St Gregory's Progression of Skills and Knowledge in Science

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	<p>4. Recognise that animals can be grouped according to whether they are carnivores, herbivores and omnivores.</p> <p>5. Know the basic needs of animals for survival.</p> <p>Year 2</p> <p>1. Know about the basic needs of animals, including humans, for survival.</p> <p>2. Describe the importance of exercise, balanced diet and hygiene for humans.</p> <p>3. Describe the main changes as young animals, including humans, grow into adults.</p>	<p>hard/soft, stretchy/stiff, shiny/dull, rough/smooth, bendy/not bendy, waterproof/ not waterproof, absorbent/ not absorbent, opaque/ transparent.</p> <p>4. Understand how to group everyday materials according to their physical properties.</p> <p>Year 2</p> <p>1. Understand how everyday materials can be used for more than one thing.</p> <p>2. Understand how different everyday materials can be used for the same thing.</p> <p>3. Understand why the properties of</p>		<p>(table & line graph)</p>		
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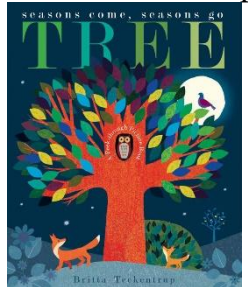

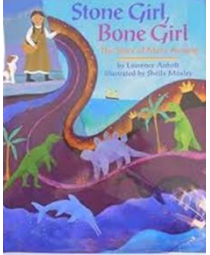
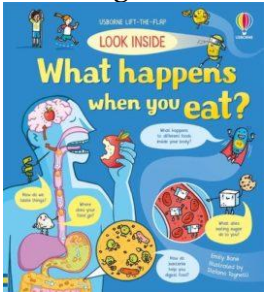
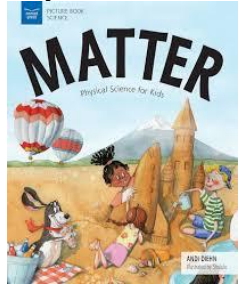

St Joseph's and St Gregory's Progression of Skills and Knowledge in Science

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		<p>materials make them suitable or unsuitable for particular purposes.</p> <p>4. Recognise that squashing, bending, twisting and stretching can change the shapes of solid objects made from some everyday materials.</p>				
Core Vocabulary	<p>head, nose, ear, neck, shoulder, arm, elbow, wrist, hand, back, chest, hip, leg, knee, ankle, foot, wing, beak, tail, fin sight, smell, touch, taste, hearing, (Yr1) survival, water, air, food reproduce, adult, baby, offspring, kitten, calf, puppy food chain, prey, predator, camouflage, protection exercise,</p>	<p>wood, plastic, glass, paper, metal, rock, hard, soft, rough, smooth, shiny, dull, bendy, stiff, (Yr1) brick, fabric, elastic, foil, property, solid, waterproof, absorbent, opaque, transparent, squash, bend, flexible, twist, stretch push, pull, roll, slide, bounce, (Yr2)</p>	<p>force, contact, surface, magnetic, attract, repel, poles,</p>	<p>vibration, wave, volume, pitch, tone,</p>	<p>hardness, transparency, conductivity (electrical, thermal) solubility, solution dissolve, filter, evaporate, sieve, reversible, irreversible,</p>	<p>characteristic, classification, cells, organism, plant, animal, similarities, differences</p>

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	hygiene, balanced diet, (Yr2)					
Autumn 2	Seasonal Changes - Wild Weather (only Year 1)	Exploring Changes	Rocks	Animals Including Humans	Properties and Changes of Materials.	Electricity
Accompanying text	Tree: Seasons Come, Seasons Go by Patricia Hegarty & Britta Teckentrup 	A Thing Called Snow by Yuval Zommer 	Stone Girl, Bone Girl by Laurence Anholt 	What happens when you eat? Emily Bone & Stefano Tognetti 	Matter: Physical Science for Kids by Andi Diehn 	Nikola Tesla by Maria Isabel Sanchez Vegara 
NC Objectives	<ul style="list-style-type: none"> Observed changes across the four seasons Observed and describe weather associated with the seasons and how day length varies. 	<ul style="list-style-type: none"> Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock. (Year 1) Describe the simple physical properties of a variety of everyday materials. (Year 1) Compare and group together a 	<ul style="list-style-type: none"> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties Describe in simple terms how fossils are formed when things that have lived are trapped within rock Recognise that soils are made 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Compare and group together everyday materials based on their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. Give reasons based on evidence from 	<ul style="list-style-type: none"> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including the brightness of

St Joseph's and St Gregory's Progression of Skills and Knowledge in Science

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		<p>variety of everyday materials based on their simple properties. (Year 1)</p> <ul style="list-style-type: none"> • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Year 2) • Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Year 2) 	<p>from rocks and organic matter.</p>		<p>comparative and fair tests, for the uses of everyday materials, including wood, metals and plastic.</p>	<p>bulbs, the loudness of buzzers and the on/off position of switches.</p> <ul style="list-style-type: none"> • Use recognised symbols when representing a simple circuit in a diagram. • planning different types of scientific enquiries to answer questions • recording data and results of increasing complexity - scientific diagrams • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results - floor book pages made into a display
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<p>Component Knowledge</p>	<p>Year 1</p> <ol style="list-style-type: none"> 1. Understand and describe the main changes across the seasons. 2. Understand weather associated with the seasons. 3. Understand how day length varies across the year. 	<p>Year 1</p> <ol style="list-style-type: none"> 1. Recognise the difference between the name of an object and the material from which it is made. 2. Identify a range of everyday materials including wood, plastic, glass, metal, water and rock. 3. Describe the physical properties of everyday materials including hard/soft, stretchy/stiff, shiny/dull, rough/smooth, bendy/not bendy, waterproof/ not waterproof, absorbent/ not absorbent, 	<ol style="list-style-type: none"> 1. Rocks come in a variety of shapes and sizes 2. What is soil made from? 3. How are fossils formed? 4. Match fossils to the organism that made it. 	<ol style="list-style-type: none"> 1. Functions of the mouth, oesophagus and stomach in digestion. 2. Functions of the intestines and how your body gets rid of what it doesn't need 3. Different teeth in humans and their functions. (display) 	<ol style="list-style-type: none"> 1. Compare and group materials 2. Investigate! - What should I use? Giving reasons for use of everyday materials 	<ol style="list-style-type: none"> 1. Symbols in a circuit 2. Create and draw simple circuits 3. Investigate! - How will the number of batteries affect the _____? 4. Investigate! 'If I change the ___what will happen to the_?'
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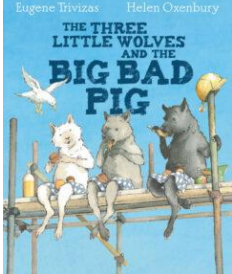
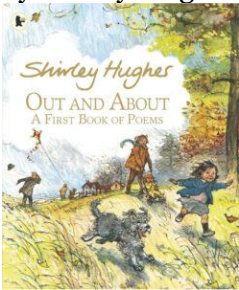
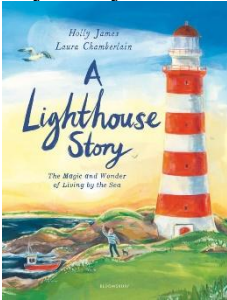
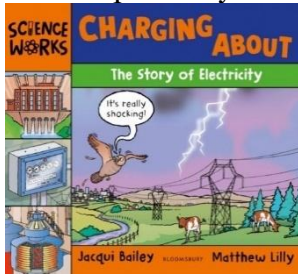
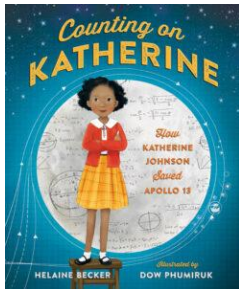
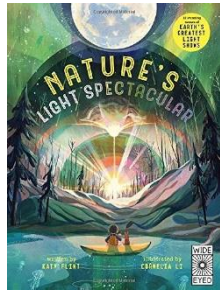
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		<p>opaque/ transparent.</p> <p>4. Understand how to group everyday materials according to their physical properties.</p> <p>Year 2</p> <p>1. Understand how everyday materials can be used for more than one thing.</p> <p>2. Understand how different everyday materials can be used for the same thing.</p> <p>3. Understand why the properties of materials make them suitable or unsuitable for particular purposes.</p> <p>4. Recognise that squashing, bending, twisting and stretching</p>				
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		can change the shapes of solid objects made from some everyday materials.				
Core Vocabulary	rain, snow, storm, thunder, lightning, cloudy, clothing, warm, cold, forecast	explore, changes, solid, liquid, gas, heat, melt, absorbency, water proof, properties, material, evaporate, particles	fossil, crystal, sandstone, granite, marble, pumice absorbent, crumble sedimentary, layer, sediment igneous, magma, lava, gas bubbles (tiny holes/spaces) metamorphic, change, squeeze, pressure,	mouth, tongue, teeth, oesophagus, stomach, small intestine, large intestine, nutrients, absorb, canine, incisor, molar	hardness, solubility, transparency, conductivity, electrical, thermal, comparative, fair, wood, metals, plastic	circuit - series, parallel voltage, volts, amps,
Spring 1	Everyday Materials - Brilliant Builders	Seasonal changes - Weather Patterns (Year 1 only)	Light	Electricity	Earth and Space	Light
Accompanying text	<p>The Three Little Wolves And The Big Bad Pig by Eugene Trivizas & Helen Oxenbury</p> 	<p>Out and About: A First Book of Poems by Shirley Hughes</p> 	<p>A Lighthouse Story By Holly James</p> 	<p>Charging About The Story Of Electricity by Jaqui Bailey</p> 	<p>Counting on Katherine by Helaine Becker & Dow Phumiruk</p> 	<p>Nature's Light Spectacular by Katy Flint</p> 

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<p>NC Objectives</p>	<ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made. (Year 1) • Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock, (Year 1) • Describe the simple physical properties of a variety of everyday materials. (Year 1) • Compare and group together a variety of everyday materials based on their simple properties. (Year 1) • Identify and compare the suitability of a 	<ul style="list-style-type: none"> • Observed changes across the four seasons • Observed and describe weather associated with the seasons and how day length varies. 	<ul style="list-style-type: none"> • Recognise that they need light in order to see things and that dark is the absence of light. • Notice that light is reflected from surfaces. • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. 	<ul style="list-style-type: none"> • Identify common appliances that run on electricity. • Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. • Identify whether a lamp will light or not in a simple series circuit, based on whether the lamp is part of a complete loop with a battery. • Recognise that a switch opens and closes the circuit and associate this with whether a lamp lights in a simple series circuit. • Recognise some common conductors and insulators, and associate metals 	<ul style="list-style-type: none"> • Describe the movement of the Earth, and other planets, relative to the Sun in the solar system • Describe the movement of the Moon relative to the Earth • Describe the Sun, Earth and Moon as approximately spherical bodies • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky • recording data and results of increasing complexity - scientific diagrams and labels 	<ul style="list-style-type: none"> • Recognise that light appears to travel in straight lines. • 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. • 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. • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. • planning different types of scientific enquiries to answer questions
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	variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Year 2)			with being good conductors.		<ul style="list-style-type: none"> reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results - floor book page
Component Knowledge	<p>Year 1</p> <ol style="list-style-type: none"> Recognise the difference between the name of an object and the material from which it is made. Identify a range of everyday materials including wood, plastic, glass, metal, water and rock. Describe the physical properties of everyday 	<p>Year 1</p> <ol style="list-style-type: none"> Understand and describe the main changes across the seasons. Understand weather associated with the seasons. Understand how day length varies across the year. 	<ol style="list-style-type: none"> Light is needed to be able to see. Darkness is the absence of light. How do we see things? (labelled diagram) Light from the sun is dangerous. How do I protect myself from the sun? (must include eyes) 	<ol style="list-style-type: none"> What uses electricity to work? Name parts of a simple circuit (cells, wires, bulbs, switches and buzzers) Construct a simple circuit identifying parts Investigate – will this lamp light? (explain why the lamp lights or not) How does a switch work? Conductors and insulators 	<ol style="list-style-type: none"> What is the solar system? What are the planets? What is the sun/moon? Relative sizes and shapes of planets, sun, moon and Earth. Heliocentric movements Geocentric movements The Earth's rotation creates day and night The movement of the moon changes what we see of it (phases) Scientific diagram 	<ol style="list-style-type: none"> How do we see things? Investigate – can light travel round corners? Investigate – do we need light to see? Investigate - A shadow is always the same shape as the object that cast it. How can light be made to change direction? Making a periscope

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	<p>materials including hard/soft, stretchy/stiff, shiny/dull, rough/smooth, bendy/not bendy, waterproof/ not waterproof, absorbent/ not absorbent, opaque/ transparent.</p> <p>4. Understand how to group everyday materials according to their physical properties.</p> <p>Year 2</p> <p>1. Understand how everyday materials can be used for more than one thing.</p> <p>2. Understand how different everyday</p>					
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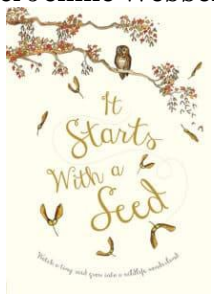
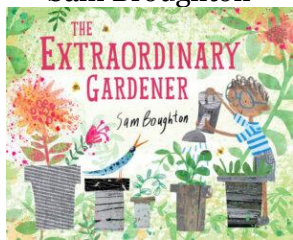
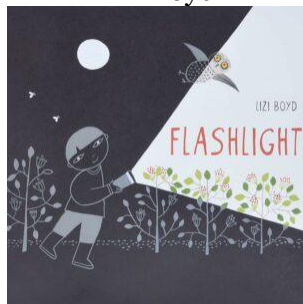
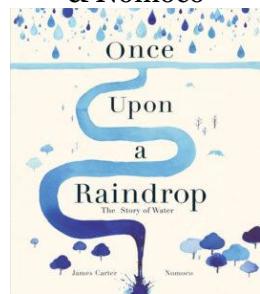

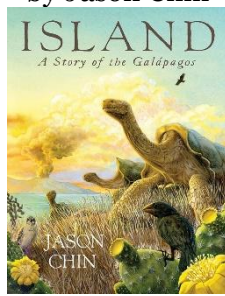
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	<p>materials can be used for the same thing.</p> <p>3. Understand why the properties of materials make them suitable or unsuitable for particular purposes.</p> <p>4. Recognise that squashing, bending, twisting and stretching can change the shapes of solid objects made from some everyday materials.</p>					
Core Vocabulary	<p>wood, plastic, glass, paper, metal, rock, hard, soft, rough, smooth, shiny, dull, bendy, stiff, (Yr1) brick, fabric, elastic, foil, property, solid, waterproof, absorbent, opaque, transparent, squash, bend, flexible, twist, stretch push, pull,</p>	<p>season, spring, summer, autumn, winter, month, year, day, night, sun, moon, light, dark,</p>	<p>light source, mirror, reflect, reflective, reflection shadow, blocked transparent, translucent, opaque,</p>	<p>insulation, appliance, battery power, main power, circuit, series, cell, battery, wire, bulb, switch, break in circuit conductor, insulator,</p>	<p>Earth, sun, moon, Mercury, Mars, Venus, Jupiter, Saturn, Uranus, Neptune, solar system, axis of rotation, day, night, phases of the moon,</p>	<p>refraction, reflection, spectrum, rainbow,</p>

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	roll, slide, bounce, (Yr2)					
Spring 2	Growing Things - Plants	Plants - Art and Nature	Light	States of Matter	Forces	Evolution and Inheritance
Accompanying text	<p>It Starts With a Seed by Laura Knowles & Jennie Webber</p> 	<p>The Extraordinary Gardener by Sam Broughton</p> 	<p>Flashlight by Lizi Boyd</p> 	<p>Once Upon a Raindrop: The Story of Water by James Carter & Nomoco</p> 	<p>https://www.myon.co.uk/reader/index.html?archive_code=gs_fo_mot_s07</p> 	<p>Island – A Story of the Galapagos by Jason Chin</p> 
NC Objectives	<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen Trees. (Year 1) Identify and describe the basic structure of a variety of common flowering plants. (Year 1) Observe and describe how 	<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Year 1) Identify and describe the basic structure of a variety of common flowering plants. (Year 1) Observe and describe how 	<ul style="list-style-type: none"> Recognise that shadows are formed when the light from a light source is blocked by an opaque object. Find patterns in the way that the sizes of shadows change. 	<ul style="list-style-type: none"> Compare and group materials together, according to whether they are solids, liquids or gases. Observe that some materials change state when heated or cooled, and measure and research the temperature at which this happens in degrees Celsius. 	<ul style="list-style-type: none"> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object and the impact of gravity on our lives. Identify the effects of air resistance, water resistance and friction, which act between moving surfaces. 	<ul style="list-style-type: none"> 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

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	<p>seeds and bulbs grow into mature plants. (Year 2)</p> <ul style="list-style-type: none"> Find out and describe how plants need water, light and warmth to grow and stay healthy. (Year 2) 	<p>seeds and bulbs grow into mature plants. (Year 2)</p> <ul style="list-style-type: none"> Find out and describe how plants need water, light and warmth to grow and stay healthy (Year 2) 		<ul style="list-style-type: none"> Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<ul style="list-style-type: none"> Recognise that some mechanisms, including levers, pulleys, and gears, allow a smaller force to have a greater effect. planning different types of scientific enquiries to answer questions taking measurements, using a range of scientific equipment - stop watches and timers recording data and results of increasing complexity – table reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results - scientific enquiry 	<ul style="list-style-type: none"> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago recording data and results of increasing complexity - bar chart (worms) identifying scientific evidence that has been used to support or refute ideas or arguments.
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					<p>recording (casual relationships)</p> <ul style="list-style-type: none"> identifying scientific evidence that has been used to support or refute ideas or arguments. 	
Component Knowledge	<p>Year 1</p> <ol style="list-style-type: none"> Name a variety of different plants (including deciduous and evergreen trees). Understand and describe how plants are suited to different habitats. Understand and describe the structure of plants including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches and stem. <p>Year 2</p>	<p>Year 1</p> <ol style="list-style-type: none"> Name various plants (including deciduous and evergreen trees). Understand and describe how plants are suited to different habitats. Understand and describe the structure of plants including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches and stem. <p>Year 2</p> <ol style="list-style-type: none"> Understand and describe the main 	<ol style="list-style-type: none"> How are shadows formed? How do shadows change size? (bar chart, oral presentation) 	<ol style="list-style-type: none"> Group materials as solids, liquids and gases Investigate – what happens if this is heated? Investigate – what happens if this is cooled? Evaporation Condensation How do evaporation and condensation fit in the water cycle 	<ol style="list-style-type: none"> Retrieval – gravity, magnetic force, and air resistance Gravity causes objects to fall to the Earth Investigate! Effects of air resistance Investigate! Effects of water resistance Investigate - Effects of friction Ways to increase the effect of a smaller force (pulleys, gears and levers) 	<ol style="list-style-type: none"> What are inheritance and variation? Adaptation using Islands book looking at birds. Investigation – Which shaped birds' foot is best for swimming? Investigation – camouflage worms – research animal adaptations. Evolutionary trees and common ancestors (horse and whale)

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	<ol style="list-style-type: none"> 1. Understand and describe the main changes as seeds and bulbs grow into mature plants. 2. Understand and describe the basic needs of plants for water, light and a suitable temperature to grow and stay healthy. 	<p>changes as seeds and bulbs grow into mature plants.</p> <ol style="list-style-type: none"> 2. Understand and describe the basic needs of plants for water, light and a suitable temperature to grow and stay healthy. 				
Core Vocabulary	seed, bulb, flower, root, stem, petal, deciduous, evergreen, soil, sun, water	deciduous, evergreen, tree, leaf, flower (blossom), petals, fruit, bulb, seed, roots, stem, trunk, branches (Yr1) growth, germinate, light, temperature (Yr2)	shadows, light source, blocked, opaque, patterns, size of shadows	temperature, freezing, heating, solid, liquid, gas, evaporation, condensation, particle,	air resistance, water resistance, friction, gravity lever, gear, pulley, Newtons,	offspring, characteristics, vary, variation, inherit, inheritance, environmental, adaptation, evolution
Summer 1	Wild and Wonderful Creatures	Living things and their habitats - Habitats and Homes (Year 2 only)	Plants	Living Things	Living Things and Their Habitats	Revision of KS2 Objectives
Accompanying text	Wild Animals of the World By Dieter Braun	The Most Important Animal of All by Penny Worms & Hannah Bailey	Mama Miti: Wangari Maathai and the Trees of Kenya by Donna Jo Napoli	Tiny, Floating Coral by Mary Auld	Grow: Secrets of our DNA By Nicola Davies	

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<p>NC Objectives</p>	<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and Mammals. (Year 1) Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Year 1) Describe and compare the structure of a variety of common animals (birds, fish, amphibians, 	<ul style="list-style-type: none"> Explore and compare the difference between things that are living, dead and things that have never been alive. (Year 2) Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of animals and plants, and how they depend on each other. (Year 2) 	<ul style="list-style-type: none"> Identify and describe the functions of different parts of the flowering plants: roots, stem/trunk/ leaves and flowers Explore the part flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal Explain the requirements of plants for life and growth (air, light, water, nutrients from soil, room to grow) and how they vary between plants 	<ul style="list-style-type: none"> Construct and interpret a variety of food chains, identifying producers, predators and prey 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. Identify and name a variety of plants and animals in their habitats, 	<ul style="list-style-type: none"> Describe the differences in the life cycles of different living things, e.g. Mammal, amphibian, insect bird. Describe the life processes of reproduction in some plants and animals. 	

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	<p>reptiles, mammals and invertebrates, and including pets) (Year 1)</p> <ul style="list-style-type: none"> Know that animals, including humans, have offspring which grow into adults. (Year 2) 		<ul style="list-style-type: none"> Investigate the way in which water is transported within plants. 	<p>including micro habitats.</p> <ul style="list-style-type: none"> Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Recognise that environments can change and that this can sometimes pose danger to living things. 		
Component Knowledge	<p>Year 1</p> <ol style="list-style-type: none"> Name and locate parts of the human body, including those relating to the senses. Identify and name different common animals including fish amphibians, 	<p>Year 2</p> <ol style="list-style-type: none"> Recognise whether things are alive, dead or have never lived. Identify different plants and animals and recognize that they are suited to their different habitats, 	<ol style="list-style-type: none"> What are the parts of a flowering plant? Seed formation, pollination and seed dispersal What does a plant need to live and grow? Investigate how water 	<ol style="list-style-type: none"> Food chains – producers, predators and prey Which animal lives in which habitat? (<i>why does this animal live here?</i>) Plants and animals in their habitats 	<ol style="list-style-type: none"> Life cycle of <ol style="list-style-type: none"> Dog – 3 stages Frog - 5 stages Lady Bird – 4 stages Owl – 3 stages Compare life cycles. Reproduction in plants Reproduction in humans 	


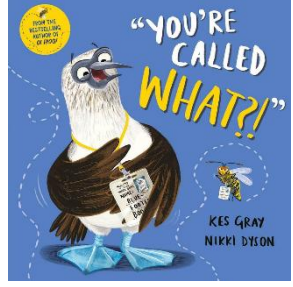
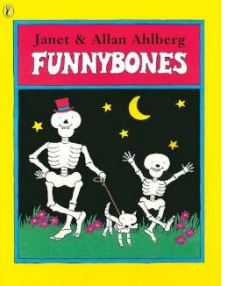
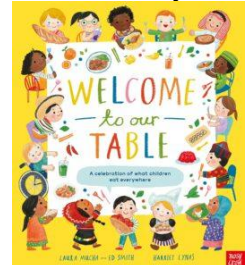
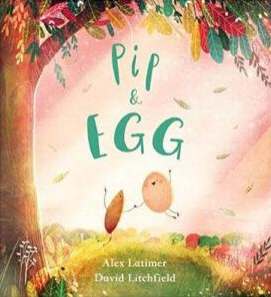
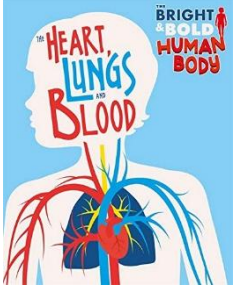
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	<p>reptiles, birds and mammals.</p> <p>3. Describe and compare the observable features of animals from a range of groups.</p> <p>4. Recognise that animals can be grouped according to whether they are carnivores, herbivores and omnivores.</p> <p>5. Know the basic needs of animals for survival.</p> <p>Year 2</p> <p>1. Know about the basic needs of animals, including humans, for survival.</p> <p>2. Describe the importance of exercise, balanced diet and</p>	<p>including micro-habitats.</p> <p>3. Recognise how different habitats provide for the basic needs of animals and plants.</p> <p>4. Understand that animals get their food from other animals and/or from plants.</p> <p>5. Recognise that a food chain is made of a series of plants and animals that eat each other and shows how energy is transferred from one organism to another via food.</p>	<p>travels in plants</p>	<p>4. Identify and group living things into vertebrates, invertebrates, amphibian, bird, fish, mammal and reptile.</p> <p>5. Environments change and pose danger to living things</p>		
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	<p>hygiene for humans.</p> <p>3. Describe the main changes as young animals, including humans, grow into adults.</p>					
Core Vocabulary	Living, dead, never lived, herbivore, carnivore, omnivore, food chains, environment, habitats	reproduce, lifecycle, living, dead, habitat, microhabitat, woodland, meadow, hedgerow, pond, (Yr2)	nutrition, air, water, transportation, nutrients, soil, reproduction, seed formation, seed dispersal, pollination, soils, organic matter,	producer, consumer, apex predator, vertebrates, invertebrates (+ 1 example of each) environment, habitat, classification key,	life cycle, difference, mammal, amphibian, insect, bird, life process, reproduction, plants, animals, observe, compare	
Summer 2	Living Things and their habitats - Food Chains	Animals including Humans - People and Their Pets (Year 1 only)	Animals Including Humans	Animals Including Humans	Animals Including Humans	Animals Including Humans
Accompanying text	<p>Tadpoles Promise By Jeanne Willis</p> 	<p>You're called what?! By Kes Gray</p> 	<p>Funnybones By Janet & Allan Ahlberg</p> 	<p>Welcome to our Table by Laura Mucha, Ed Smith & Harriet Lynas</p> 	<p>Pip & Egg by Alex Latimer & David Litchfield</p> 	<p>The Heart, Lungs and Blood by Izzi Howell</p> 

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<p>NC Objectives</p>	<ul style="list-style-type: none"> • Explore and compare the difference between things that are living, dead and things that have never been alive. (Year 2) • 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. (Year 2) • Identify and name a variety of plants and animals in their habitats, including micro habitats. (Year 2) 	<ul style="list-style-type: none"> • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Year 1) • Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, and including pets) (Year 1) • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Year 1) 	<ul style="list-style-type: none"> • Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get their nutrition from what they eat. • Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<ul style="list-style-type: none"> • Construct and interpret a variety of food chains, identifying producers, predators and prey. 	<ul style="list-style-type: none"> • Describe the changes as humans develop to old age. • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results - Oral presentation 	<ul style="list-style-type: none"> • Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies' function. • Describe the ways in which nutrients and water are transported within animals, including humans. • taking measurements, using a range of scientific equipment - stop watches and timers, distance measuring equipment. • recording data and results of
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	<ul style="list-style-type: none"> Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name the different sources of food. (Year 2) 					<p>increasing complexity – tables</p> <ul style="list-style-type: none"> using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results - scientific enquiry record and oral presentation
Component Knowledge	<p>Year 2</p> <ol style="list-style-type: none"> Recognise whether things are alive, dead or have never lived. Identify different plants and animals and recognize that they are suited to 	<p>Year 1</p> <ol style="list-style-type: none"> Name and locate parts of the human body, including those relating to the senses. Identify and name different common animals 	<ol style="list-style-type: none"> Why do we have a skeleton? Why do we have muscles? Animals cannot make their own food: they get nutrition from what they eat 	<ol style="list-style-type: none"> What is a food chain? Who is the producer, predator and prey? 	<ol style="list-style-type: none"> Stages of the human life cycle – embryo, foetus, baby, toddler, child, adolescent, adult, elderly. Changes in puberty (PSHE Link) Menstruation (PSHE Link) 	<ol style="list-style-type: none"> Blood travels round the body through arteries, veins and capillaries. Function of the blood. Structure and function of the heart.

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	<p>their different habitats, including micro-habitats.</p> <p>3. Recognise how different habitats provide for the basic needs of animals and plants.</p> <p>4. Understand that animals get their food from other animals and/or from plants.</p> <p>5. Recognise that a food chain is made of a series of plants and animals that eat each other and shows how energy is transferred from one organism to another via food.</p>	<p>including fish amphibians, reptiles, birds and mammals.</p> <p>3. Describe and compare the observable features of animals from a range of groups.</p> <p>4. Recognise that animals can be grouped according to whether they are carnivores, herbivores and omnivores.</p> <p>5. Know the basic needs of animals for survival.</p> <p>Year 2</p> <p>1. Know about the basic needs of animals, including humans, for survival.</p> <p>2. Describe the importance of</p>			<p>4. Investigate! Comparison of gestation periods of animals and compare with human.</p>	<p>4. Investigations – impact of exercise on heart rate.</p> <p>5. Using data to run further tests e.g. what about running made your heart rate increase? Time, distance, speed?</p> <p>6. How to keep your heart healthy.</p> <p>7. Diffusion (nutrients) and Osmosis (water)</p>
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		<p>exercise, balanced diet and hygiene for humans.</p> <p>3. Describe the main changes as young animals, including humans, grow into adults.</p>				
Core Vocabulary	Living, dead, never lived, herbivore, carnivore, omnivore, food chains, environment, habitats	amphibians, fish, reptiles, mammals, birds (+ 1 example of each) herbivore, omnivore, carnivore (Yr1)	skeleton, skull, bones, muscles, movement, support, protection,	Construct, interpret, food chains, producers, predators, prey, consumers	womb, foetus, embryo, gestation, baby, toddler, teenager, elderly growth, development, puberty, life process, reproduction, offspring,	function, circulatory system, heart, valve, blood vessel, vein, artery transport, oxygenated, deoxygenated, lifestyle, drug,