



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

	EYFS	KS1		KS2			
	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Scientific Enquiry							
	<p><u>Pupils will:</u></p> <ul style="list-style-type: none"> ▪ Play and explore ▪ Have their own ideas and make links ▪ Choose ways to do things ▪ Be involved and concentrate ▪ Keep trying ▪ Enjoy achieving what they set out to do ▪ Explore the natural world around them, making observations and drawing pictures of animals and plants. ▪ Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. ▪ Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter 	<p><u>Pupils will be taught to:</u></p> <ul style="list-style-type: none"> ▪ Ask simple questions and recognise that they can be answered in different ways. ▪ Observe closely, using simple equipment. ▪ Perform simple tests. ▪ Identify and classify. ▪ Use their observations and ideas to suggest answers to questions. ▪ Gather and record data to help in answering questions. 	<p><u>Pupils will be taught to:</u></p> <ul style="list-style-type: none"> ▪ Ask relevant questions, using different types of scientific enquiries to answer them. ▪ Set up simple practical enquiries, comparative and fair tests ▪ Make systematic and careful observations and, where appropriate, take accurate measurements using standard units and a range of equipment, including thermometers and data loggers. ▪ Gather, record, classify and present data in a variety of ways to help in answering questions. ▪ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. ▪ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. ▪ Identify differences, similarities or changes related to simple scientific ideas and processes. ▪ Use straightforward scientific evidence to answer questions or to support their findings ▪ Use results to draw simple conclusions, make predictions for new values, suggest improvements, raise further questions and predictions for setting up further tests. 	<p><u>Pupils will be taught to:</u></p> <ul style="list-style-type: none"> ▪ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. ▪ Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. ▪ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. ▪ Use test results to make predictions to set up further comparative and fair tests. ▪ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. ▪ Identify scientific evidence that has been used to support or refute ideas or arguments. 			

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School
Science Curriculum Map 2022 - 2023

EYFS	KS1		KS2			
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn Term 1						
<p>Seasons & Weather</p> <p>Learn about the seasonal changes that happen in Autumn and Winter</p> <p><i>Autumn, Winter, snow, dark, season</i></p> <p>Linked Text: Skip through the Seasons by Stella Blackstone</p>	<p>Everyday Materials</p> <p>1. Identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock</p> <p>2. Distinguish between an object and the material it is made from</p> <p>3. Describe the properties of everyday materials</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties</p> <p>4. Identify objects that are natural and those that are manmade</p> <p>5. Predict and identify if an object will float or sink</p> <p>6. Explore which materials are best for different objects</p> <p><i>Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/t ears, rough, smooth, shiny, dull, see t through, not see t through</i></p> <p>Linked Text: The Adventures of a Plastic Bottle: A Story About Recycling Alison Inches</p>	<p>Animals inc. Humans – Growth</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>1. Describe the needs of animals for survival</p> <p>2. Describe the needs of humans, for survival</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p> <p>3. Explore the importance of eating the right food</p> <p>4. Describe what a healthy, balanced diet looks like</p> <p>5. Investigate the impact of exercise on our bodies</p>	<p>Forces and Magnets</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance</p> <p>1. Explore contact and non-contact forces</p> <p>5. Understand that magnetic forces can act at a distance</p> <p>Compare how things move on different surfaces</p> <p>2. Compare how things move on different surfaces</p> <p>Describe magnets as having two poles</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing</p> <p>3. Explore different types of magnets</p> <p>6. Explore the everyday uses of magnets</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>Sound</p> <p>Identify how sounds are made, associating some of them with something vibrating</p> <p>1. Identify how sounds are made</p> <p>Recognise that vibrations from sounds travel through a medium to the ear</p> <p>2. Explore how vibrations from sounds travel through a medium to the ear</p> <p>3. Explore sound insulation</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it</p> <p>4. Explore volume</p> <p>Find patterns between the pitch of a sound and features of the object that produced it</p> <p>5. Explore pitch</p> <p>Recognise that sounds get fainter as</p>	<p>Properties of Materials</p> <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> <p>1. Exploring properties of materials</p> <p>3. Explore the hardness of materials</p> <p>Compare and group together everyday materials based on evidence from comparative and fair tests, including their conductivity of heat</p> <p>Give reasons, based on evidence from comparative and fair test, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>2. Explore thermal conductors and thermal insulators</p> <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>4. Discover materials that become soluble in water</p> <p>5. Investigate the solubility of materials</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>6. Explore how mixtures could be separated by filtering, sieving, evaporating or magnets</p> <p><i>Thermal/electrical insulat or/conduct or, change of st ate, mixt ure, dissolve, solution, soluble, insoluble, filt er, sieve</i></p>	<p>Animals inc. Humans (The Body)</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>1. Understand the function of the heart and its role in the circulatory system</p> <p>2. Identify and compare blood vessels</p> <p>3. Explore blood</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans</p> <p>4. Learn how the body transports water and nutrients</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their body's function</p> <p>5. Investigate what affects your heart rate</p> <p>6. Learn about the impact of drugs and alcohol on the body</p> <p><i>Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide,</i></p>

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

	<p>Seasonal Changes</p> <p>Observe changes across the four seasons</p> <p>Observe and describe weather associated with <u>Autumn</u> and how day length varies</p> <ol style="list-style-type: none"> Understand the there are four seasons Understand the changes that take place in Autumn <p><i>Weather (sunny, rainy, windy, snowy et c.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length, monsoon, thunderstorm</i></p> <p>Linked Text: Leaf Many by Lois Ehlert</p>	<p>6. Investigate the importance of hygiene</p> <p><i>exercise, heart beat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)</i></p> <p>Linked Text: Funnybones by Janet & Allan Ahlberg</p>	<p>Observe how magnets attract or repel each other and attract some materials and not others</p> <p>4. Explore the properties of magnets and everyday objects that are magnetic</p> <p><i>Force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole</i></p> <p>Linked Text: Mrs Armitage Queen of the Road by Quentin Blake</p>	<p>the distance from the sound source increases</p> <p>6. Explore sounds from near and from far</p> <p><i>Sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation</i></p> <p>Linked texts: Sonam and the Silence Eddie Ayres & Ronak Taher</p>	<p><i>reversible/non-reversible change, burning, rusting, new material</i></p> <p>Linked texts: The Iron Man by Ted Hughes</p>	<p><i>nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs and lifestyle</i></p> <p>Linked Texts: Pigheart Boy by Malorie Blackman</p>
--	---	---	--	--	---	--

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

EYFS	KS1			KS2		
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn Term 2						
<p>Living Things and their Habitats (Nocturnal Animals)</p> <p>Learn about living things that are animals</p> <p>Know where animals live and what they need</p> <ol style="list-style-type: none"> Learn about living things that are animals Know where animals live and what they need <p><i>Linked Text: Owl Babies by Martin Waddell</i></p>	<p>Everyday Materials Continued <i>(Based on the 3 Little Pigs)</i></p> <ol style="list-style-type: none"> Build a structure strong enough to withstand wind Build a waterproof structure Understand the properties of glass and its uses transparent, Understand that materials are used to create a variety of furniture Explore a variety of fabrics and understand their different properties Explain the uses of materials and why they are suitable 	<p>Animals inc. Humans – Life Cycles</p> <p>Notice that animals, including humans, have offspring which grow into adults</p> <ol style="list-style-type: none"> Learn how to order the stages of the human life cycle Describe the stages of life from adulthood to old age Learn how to match offspring to their parent Explore the life cycle of a chicken Describe the life cycle of a butterfly Explore the life cycle of a frog <p><i>Offspring, reproduction, growth, child, young/old stages (examples – chick/hen, baby/child/adult, caterpillar/butterfly)</i></p> <p><i>Linked texts: The Gruffalo (Julia Donaldson) Meerkat Mail (Emily Gravett) Tadpole's Promise (Jeanne Willis and Tony Ross)</i></p>	<p>Animals inc. Humans</p> <p>Identify those 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> <ol style="list-style-type: none"> Explore the 5 key food groups Learn about the nutrition in the food we eat <p><i>Linked Text: Oliver's Vegetables Oliver Jeffers</i></p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</p> <ol style="list-style-type: none"> Learn about the different types of skeletons Learn about the human skeleton 	<p>Electricity</p> <p>Identify common appliances that run on electricity</p> <ol style="list-style-type: none"> Explore electrical appliances and electrical safety <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <ol style="list-style-type: none"> Learn about electrical components in a series circuit <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> <ol style="list-style-type: none"> Investigate electrical circuits Investigate how electrical components can change within a circuit <p>Recognise some common conductors and insulators, and associate metals with being good conductors</p> <ol style="list-style-type: none"> Explore conductors and insulators <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> <ol style="list-style-type: none"> Learn about electrical switches <p><i>Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive,</i></p>	<p>Changes of Materials</p> <p>Describe how to recover a substance from a solution</p> <ol style="list-style-type: none"> Use evaporation to recover the solute from a solution <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p> <ol style="list-style-type: none"> Recognise and describe reversible changes <p>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible</p> <ol style="list-style-type: none"> Observe chemical reactions and describe how we know new materials are made Investigate rusting reactions <p>...including changes associated with burning</p> <ol style="list-style-type: none"> Investigate burning reactions <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>Living Things and their Habitats</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> <ol style="list-style-type: none"> Classify living things Describe the work of Carl Linnaeus Identify different classes of vertebrates Explore soil habitats Describe different types of fungi <p>Give reasons for classifying plants and animals based on specific characteristics</p> <ol style="list-style-type: none"> Explore the kingdoms of life <p><i>Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering and non-flowering</i></p> <p><i>Linked Texts: The Bacteria Book: Gross Germs, Vile</i></p>

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

<p>Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see through, not see through</p> <p style="color: red;">Linked Text: The Three Little Pigs</p>		<p>3. Learn about animals and their skeletons</p> <p>4. Explore the role of muscles</p> <p><i>Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, move, skull, ribs, spine, muscles, joints</i></p>	<p><i>negative, connect /connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol</i></p> <p style="color: red;">Linked Text: Electrical Wizard by Elizabeth Rusch</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 the action of acid on bicarbonate of soda</p> <p>6. Investigate chemical reactions – acids and bicarbonate of soda</p> <p><i>Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve reversible/non-reversible change, burning, rusting, new material</i></p> <p style="color: red;">Linked Text: George's Marvellous Medicine by Roald Dahl</p>	<p style="color: red;">Viruses, and Funky Fungi Steve Mould</p>
---	--	--	---	--	---

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

EYFS	KS1		KS2			
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Spring Term 1						
<p>Animals inc. Humans</p> <p>Learn about living things that are animals</p> <p>Know where animals live and what they need</p> <p><u>Food</u></p> <p>Learn about your diet and how to stay healthy</p> <p>Learn about chickens and eggs, cows and milk, wheat and flour (CNY), fruit and vegetables</p> <p><u>Animals</u></p> <p>Drawing pictures of the natural world, including animals and plants</p> <p>Aquafresh Shine Bright Dental Health session</p> <p>Linked Text:</p>	<p>Animals inc. Humans</p> <p><u>All About Animals</u></p> <p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>1. Discover animal families</p> <p>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p> <p>2. Learn about the differences between mammals and birds</p> <p>3. Learn about the differences between amphibians, reptiles and fish</p> <p>5. Explore the difference between wild animals and pets</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>1. Discover the types of food living things eat</p> <p>6. Explain the characteristics of an animal</p> <p><i>Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves</i></p> <p>Linked Text: Superworm by Julia Donaldson</p> <p>Seasonal Changes (Ongoing)</p>	<p>Living Things and their Habitats</p> <p>1. Explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>2. Identify and name a variety of plants and animals in their habitats, including micro-habitats</p> <p>3. Design a suitable microhabitat where living things could survive</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food</p> <p>4. Find out what animals eat to survive in their habitats</p> <p>5. Understand a food chain</p> <p>6. Understand the journey food makes from the farm to the supermarket</p> <p><i>Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed, names of local habitats e.g., pond, woodland etc., names of</i></p>	<p>Light</p> <p>Recognise that they need light in order to see things and that dark is the absence of light</p> <p>1. Identifying the difference between light sources and non-light sources</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>2. Explore the light that comes from the sun and how to stay safe</p> <p>Notice that light is reflected from surfaces</p> <p>3. Explore materials which are reflective</p> <p>Recognise that shadows are formed when the light from a light source is blocked by an opaque object</p>	<p>States of Matter</p> <p>Compare and group materials together, according to whether they are solids, liquids or gases</p> <p>1. Compare and group the 3 states of matter</p> <p>2. Explore how particles behave in solids, liquids and 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>3. Investigate melting points</p> <p>4. Explore freezing and boiling points</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p> <p>5. Explore evaporation and condensation</p>	<p>Earth and Space</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>1. Explore the solar system and its planets</p> <p>6. Design a planet using knowledge gained</p> <p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>2. Understand the heliocentric model of the solar system</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</p> <p>3. Explain the Earth's movement in Space</p> <p>4. Explain the Earth's rotation and night and day</p> <p>Describe the movement of the</p>	<p>Electricity</p> <p>Use recognised symbols when representing a simple circuit in a diagram</p> <p>1. Describe the parts of an electric circuit</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>2. Explore voltage and its effect on an electrical circuit</p> <p>3. Apply knowledge to identify and correct problems in a circuit</p> <p>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p>4. Investigate what affects the output of a circuit</p> <p>5. Build a set of traffic lights</p> <p>6. Apply knowledge of conductors and insulators</p> <p><i>Circuit, complete circuit, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, switch, voltage</i></p>

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

	<p>Observe changes across the four seasons</p> <p>Observe and describe weather associated with Winter and how day length varies</p> <p><i>Weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, daylength, monsoon, thunderstorm</i></p> <p>Linked Text: <i>Tree: Seasons Come, Seasons Go</i> by Patricia Hegarty and Britta Teckentrup</p>	<p><i>micro-habitats e.g. under logs, in bushes etc.</i></p> <p>Linked Text: <i>Meerkat Mail</i> by Emily Gravett</p>	<p>4. Discover how shadows are formed</p> <p>Find patterns in the way that the size of shadows change</p> <p>5. Investigate how shadows change throughout the day</p> <p>6. Investigate how you can change the size of a shadow</p> <p><i>Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous</i></p> <p>Linked Text: <i>The Dark</i> by Lemony Snicket</p>	<p>6. Understand the water cycle</p> <p><i>Solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle</i></p> <p>Linked Text: <i>Once Upon a Raindrop: The Story of Water</i> by James Carter</p>	<p>Moon relative to the Earth</p> <p>5. Explain the movement of the Moon</p> <p><i>Earth, Sun, Moon, (Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune) spherical, solar system, rotates, star, orbit, planets</i></p> <p>Linked Text: <i>The Skies Above My Eyes</i> by Charlotte Guillain & Yuval Zommer</p>	<p>- NB Children do not need to understand what voltage is but will use volts and voltage to describe different batteries. The words cells and batteries are now used interchangeably</p> <p>Linked Text: <i>Goodnight Mister Tom</i> by Michelle Magorian</p>
--	--	---	--	---	---	--

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

EYFS	KS1		KS2			
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Spring Term 2						
<p>States of Matter</p> <p><u>Food</u> Learn about ingredients & measuring (Easter/Lent)</p> <p><u>Linked Text:</u></p>	<p>Animals inc. Humans – All About Me</p> <p><u>All About Me</u></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> <ol style="list-style-type: none"> Discover the basic parts of the human body Learn about eyes and sight Learn about ears and hearing Explore the tongue and taste Explore the sense of touch Discover how your nose smells <p><i>Senses, touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue</i></p> <p><u>Linked Text: Titch by Pat Hutchinson</u></p> <p>Seasonal Changes (Ongoing)</p> <p>Observe changes across the four seasons</p>	<p>Living Things and their Habitats</p> <p><u>Habitats from around the World</u></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> <ol style="list-style-type: none"> Learn about habitats Appreciate that environments are constantly changing Explore the rainforests and its problems Describe life in the ocean Discover the Arctic and Antarctic habitat Create a model of a habitat (homework task) <p><i>Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed, names of local habitats e.g., pond, woodland et c., names of micro-habitats e.g. under logs, in bushes et c.</i></p>	<p>Rocks and Soils</p> <p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <ol style="list-style-type: none"> Explore the formation and properties of igneous rocks Explore the formation and properties of sedimentary and metamorphic rocks Weathering and the suitability of rocks for different purposes (non-statutory) Explore how water contributes to the weathering of rocks <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <ol style="list-style-type: none"> Understand how fossils are formed <p>Recognise that soils are made from rocks and organic matter</p> <ol style="list-style-type: none"> Explore different types of soil 	<p>States of Matter continued</p>	<p>Living Things and their Habitats (Life Cycles & Reproduction)</p> <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <ol style="list-style-type: none"> Understand the life cycles of mammals Understand the life cycles of insects and amphibians Understand the life cycle of birds and reptiles Research and present the life cycle of a creature <p>Describe the life process of reproduction in some plants and animals</p> <ol style="list-style-type: none"> Understand the life process of a plant Know about the life and work of Jane Goodall and David Attenborough <p><i>Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings</i></p> <p><u>Linked Text: The Explorer by Katherine Rundell</u></p>	<p>Light</p> <p>Recognise that light appears to travel in straight lines</p> <ol style="list-style-type: none"> Explore how light travels <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> <ol style="list-style-type: none"> 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>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> <ol style="list-style-type: none"> Explore reflection and explain how it can be used to help us see Investigate how we see objects <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>

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

	<p>Observe and describe weather associated with <u>Spring</u> and how day length varies</p> <p>3. Understand the changes that take place in winter</p> <p><i>Weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length, monsoon, thunderstorm</i></p> <p>Linked Text: Ferdie's Springtime Blossom by Julia Rawlinson</p>	<p>Linked Text: Dear Greenpeace by Simon James</p>	<p><i>Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil</i></p> <p>Linked Text: A Pebble in My Pocket by Meredith Hooper</p>			<p>4. Investigate how shadows can change</p> <p>5. Investigate how we can show why shadows have the same shape as the object that casts them</p> <p><i>As for year 3 plus straight lines, light rays.</i></p> <p>Linked Text: The Viewer by Gary Crew</p>
--	---	--	--	--	--	---

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

EYFS	KS1		KS2			
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Summer Term 1						
<p>Animals inc. Humans</p> <p><u>Insects</u> Learn about insects and invertebrate and where they live</p> <p>Drawing pictures of the natural world, including animals</p> <p><i>Linked Text: Beetle in the Bathroom by Brian Moses</i></p> <p>Plants Learn about living things which are plants, where plants come from and how to look after them</p> <p>Drawing pictures of the natural world, including plants</p> <p><i>Linked Text: Jasper's Beanstalk by Nick Butterworth</i></p> <p>Materials and their Properties</p> <p><u>Shadows & reflections</u></p>	<p>Plants</p> <p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <ol style="list-style-type: none"> Identify the basic parts of a plant and tree Understand that different plants can grow in the same environment Know the difference between deciduous and evergreen trees <p>Identify and describe the basic structure of a variety of common flowering plants, including trees.</p> <ol style="list-style-type: none"> Understand that seeds grow into plants Know that fruit trees and vegetables are varieties of plants Record the growth of a plant <p><i>Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud</i></p>	<p>Uses of Everyday Materials</p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <ol style="list-style-type: none"> Identify different materials and their uses Understand how to select the right materials to build a bridge Find out about Charles Macintosh and explore how materials are suitable for different purposes Discover which materials change shape when making a road with John McAdam <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p> <ol style="list-style-type: none"> Explore and test the stretchiness of materials 	<p>Plants</p> <p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <ol style="list-style-type: none"> Identify and describe the functions of different parts of a flowering plant and how they are used in photosynthesis Investigate the way in which water is transported within plants <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> <ol style="list-style-type: none"> Compare the effect of different factors on plant growth Investigate the way in which water is transported within plants Compare the effect of different factors on plant growth <p>Explore the part that flowers play in the life cycle of flowering plants, including</p>	<p>Animals inc. Humans</p> <p>Describe the simple functions of the basic parts of the digestive system in humans</p> <ol style="list-style-type: none"> Identify the organs in the digestive system Describe the functions of the main organs in the digestive system <p>Identify the different types of teeth in humans and their simple functions</p> <ol style="list-style-type: none"> Identify the types of human teeth and their functions Investigate the effects of different liquids on the teeth <p>Construct and interpret a variety of food chains, identifying producers, predators and prey</p> <ol style="list-style-type: none"> Understand food chains Explore food webs <p><i>Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain</i></p> <p><i>Linked Text: Yum Yum by Mick Manning</i></p>	<p>Forces</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> <ol style="list-style-type: none"> Explore gravity and the life and work of Isaac Newton <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <ol style="list-style-type: none"> Examine the connection between air resistance and parachutes Explore factors which affect and object's ability to resist water Investigate the effects of friction on different surfaces <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect</p> <ol style="list-style-type: none"> Investigate mechanisms – levers and pulleys <p><i>Force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears</i></p> <p><i>Linked Text: Clockwork by Philip Pullman</i></p>	<p>Evolution and Inheritance</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <ol style="list-style-type: none"> Understand how offspring vary and are not identical to their parents <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</p> <ol style="list-style-type: none"> Learn about animal adaptations Learn about plant adaptations <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> <ol style="list-style-type: none"> Explore what we can learn from fossils Explore the theory of evolution

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

<p>Know about materials which act like a mirror</p> <p>Linked Text: The Day I Met My Shadow by Melissa Brun</p>		<p>4. Understand that materials can change their shape by twisting, bending, squashing or stretching</p> <p><i>Names of materials – increased range from year 1</i></p> <p><i>Properties of materials - as for year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid, shape, push/pushing, pull/pulling, twist/twisting, squash/squashing. Bend/bending, stretch/stretching</i></p> <p>Linked Text: Centrally Heated Knickers – Micheal Rosen</p>	<p>pollination, seed formation and seed dispersal</p> <p>4. Explore the part that flowers play in the life cycle of flowering plants</p> <p>5. Understand the pollination process and the ways in which seeds are dispersed</p> <p><i>Photosynthesis, pollen, insect/wind pollination, seed formation, seed dispersal – wind dispersal, animal dispersal, water dispersal</i></p> <p>Linked Text: Where the Forest Meets the Sea by Jeanne Baker</p>			<p>6. Explore human evolution</p> <p><i>Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils</i></p> <p>Linked Text: The Mollie Bird by Jules Pottle</p>
---	--	--	---	--	--	--

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

EYFS	KS1		KS2			
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Summer Term 2						
<p>Materials and their Properties</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</p> <p>Now that things can change shape such as melting and changes in water</p> <p><i>Linked Text: Biscuit Bear by Grey & Cape</i></p>	<p>Plants continued</p> <p>Seasonal Changes (Ongoing)</p> <p>Observe changes across the four seasons</p> <p>Observe and describe weather associated with <u>Summer</u> and how day length varies</p> <p><i>Weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length, monsoon, khareef, thunderstorm</i></p> <p><i>Linked Text: Sun Up, Sun Down by Gail Gibbons</i></p>	<p>Plants</p> <p>Observe and describe how seeds and bulbs grow into mature plants</p> <ol style="list-style-type: none"> 1. Know the difference between seeds and bulbs 4. Describe the life cycle of a plant 5. Observe and record the growth of plants over time <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p> <ol style="list-style-type: none"> 2. Design an experiment to find out what plants need to grow 3. Describe what plants need to grow and stay healthy 6. Understand that plants adapt to suit their environment <p><i>As for year 1 plus - light, shade, sun, warm, cool, water, grow, healthy, germinate</i></p>	<p>Scientific Enquiry</p> <p>Asking relevant questions and using different types of scientific enquiries to answer them</p> <p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <ol style="list-style-type: none"> 1. How can a solar oven be made more effective: <ol style="list-style-type: none"> a. posing questions and writing predictions b. recording and presenting results 2. Cleaning coins <ol style="list-style-type: none"> a. writing a method and carrying out a practical test b. Writing a conclusion <p>Setting up simple practical enquiries, comparative and fair tests</p>	<p>Living Things and their Habitats</p> <p>Recognise that living things can be grouped in a variety of ways</p> <ol style="list-style-type: none"> 1. Explore different habitats 2. Research a habitat <p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</p> <ol style="list-style-type: none"> 3. Explore how animals can be classified 4. Create a classification key 5. Adaptions and classification within species 6. Explore and classify pond plants <p>Living Things and their Habitats - Conservation</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things</p>	<p>Animals inc. Humans</p> <p>Describe the changes as humans develop to old age</p> <ol style="list-style-type: none"> 1. Identify the key stages of a mammal's life cycle 2. Explore the gestation periods of mammals 3. Learn about foetal development 4. Investigate the hand span of different aged children 5. Learn about the changes experienced during puberty 6. Describe the changes humans may experience during adulthood and old age <p><i>Vocab to be decided alongside PSHE puberty topic</i></p> <p><i>Linked Text: Hair in Funny Places by Babette Cole</i></p>	<p>Catch-up / consolidation / filling the gaps</p>

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness



Holy Trinity C of E Primary School Science Curriculum Map 2022 - 2023

		<p>Linked Text: Mabel's Magical Garden by Paula Metcalf</p>	<p>5. Making a cake: fair testing, controls and variables</p> <p>Using straightforward scientific evidence to answer questions or to support their findings.</p> <p>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>6. Making a cake: fair testing, controls and variables and scientific enquiries</p> <p>Linked Text:</p>	<p>1. Describe ecosystems and how they are affected by changes in the seasons</p> <p>2. Understand human impact on the environment through deforestation</p> <p>3. Explore air pollution</p> <p>4. Understand water pollution</p> <p>5. Explore methods that can be used to conserve water</p> <p>6. Understand that humans can have a positive impact on nature</p> <p><i>Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate</i></p> <p>Linked Text: The Vanishing Rainforest by Richard Platt</p>		
--	--	---	--	--	--	--

A Church School community aspiring for all to live life to the full

Respect

Responsibility

Compassion

Courage

Forgiveness

Truthfulness