




Science Progression Map



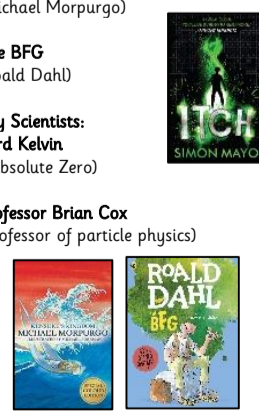
Reception (Understanding the world):		Early Learning Goal:			
<ul style="list-style-type: none"> - Explore the natural world around them. (park, city, countryside) - Describe what they see, hear and feel whilst outside. - Recognise some environments that are different from the one in which they live. - Understand the effects of changing seasons on the natural world around them. 		<ul style="list-style-type: none"> - Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps. - 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 changes in matter. 			
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p style="text-align: center; color: #00aaff; font-weight: bold;">Summers (A and B)</p> <p>-Identify and name a variety of common wild and garden plants, including deciduous (oak/maple/willow) and evergreen trees (conifer/pine/Christmas)</p> <p>-Identify and describe the basic structure of a variety of common flowering plants, including trees.</p>	<p style="text-align: center; color: #00aaff; font-weight: bold;">Pendower (A and B)</p> <p>-Observe and describe how seeds and bulbs grow into mature plants. (sunflower, bean, daffodil)</p> <p>-Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p style="text-align: center; color: #00aaff; font-weight: bold;">Porthcurnick (A)</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> <p>-Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>			
Vocabulary					
<p>Plant, leaf, grow, weed, change, living, water, healthy, similar to, different from, healthy, pollen, flower, roots, stem, leaves, evergreen, deciduous, trunk, bark</p>	<p>seed, disperse, wind, pollination, bulb, hydroponics, water, warmth, nutrients, warmth, light, water, dry, wet, moist, growth, germination, seed, bean, leaves, stem, roots</p>	<p>plants, growth, light, warmth, air, soil, water, investigate, seedlings, research, seedlings, research, height, root, stem, leaves, flowers, petals, buds, fruits, seeds, classify, light level, temperature, wilting, yellowing</p>			
Books and Key Scientists					
<p>The Tiny Seed (Eric Carle)</p> <p>Bloom (Anne Booth & Robyn Owen Wilson)</p> <p>The Little Gardener (Emily Hughes)</p> <p>Key Scientists: Jane Colden (Botanist)</p> 	<p>Jack and the Beanstalk (Richard Walker)</p> <p>Ten Seeds (Ruth Brown)</p> <p>A Seed Is Sleepy (Dianna Aston)</p> <p>Key Scientists: Jeanne Baret (Introduced 70 plants to Europe)</p> 	<p>The Story of Frog Belly Rat Bone (Timothy Basil Ering)</p> <p>The Hidden Forest (Jeannie Baker)</p> <p>George and Flora's Secret Garden (Jo Elworthy)</p> <p>Key Scientists: William Gilbert (Theories on Magnetism)</p> <p>Andre Marie Ampere (Founder of Electro-Magnetism)</p> 			

Plants

Science Progression Map

Animals, including humans	Summers (A and B)	Pendower (A and B)	Porthcurnick (A)	Porthcurnick (A)	Portholland (A)	Porthluney (A)
	-Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.	-Notice that animals, including humans, have offspring which grow into adults.	-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.	-Describe the simple functions of the basic parts of the digestive system in humans.	-Describe the changes as humans develop to old age.	-Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
	-Identify and name a variety of common animals that are carnivores , herbivores and omnivores .	-Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).	-Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	-identify the different types of teeth in humans and their simple functions.		-Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
	-Describe and compare the structure of a variety of common animals (fish , amphibians , reptiles , birds and mammals , including pets).	-Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.		-construct and interpret a variety of food chains, identifying producers, predators and prey.		-Describe the ways in which nutrients and water are transported within animals, including humans.
	-Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.					
	Vocabulary					
compare, describe, similar, different, baby, adult, changes, growing, measure, record, data, gather, predict, centimetre, millimetre, touch, sight, smell, taste, hear, sense, behaviour, habitat, living things, damp, shady, dry, vertebrate, invertebrate, backbone	egg, chick, hatch, baby, adult, grow, change, feathers, observe, record, young, old, adult, basic needs, water, food, air, breathing, survival, heart, beating, healthy, exercise, fruit, vegetables, bread, rice, potatoes, pasta, milk, dairy, food high in fat, sugar, meat, fish, egg, beans	carbohydrates, proteins, dairy, fats, sugars, vitamins, minerals, fibre, growth, repair, health, energy, vertebrate, invertebrate, bone, skeleton, skull, ribcage, pelvis, femur, muscles, joints, tendons, contract, relax, biceps, triceps, teeth, incisors, molars, canines, jaw, evidence,	herbivore, carnivore, omnivore, nutrition, diet, food chain, data, table, bar chart, digestion, chew, saliva, digestive system, nutrition, mouth, teeth, saliva, oesophagus (gullet), stomach, small intestine, large intestine, rectum, anus, faeces (poo)	scatter and line graphs, bar charts, causal relationships, support/refute, gestation, life cycle, sperm, egg, foetus, nutrition, uterus, development, healthy, comparison, centile, adolescence, adolescent, puberty, teenager, reproduction	blood, blood vessels, arteries, veins, capillaries, heart, pumps, oxygen, carbon dioxide, lungs, nutrients, water, circulatory system, exercise, diet, lifestyle, health	
Books and Key Scientists						
<p>The Most Important Animal of All (Penny Worms & Hannah Bailey)</p> <p>The Big Book of Beasts (Yuval Zommer)</p> <p>Gorilla (Anthony Browne)</p> <p>Key Scientists: Carl Hagenbeck (first zoo enclosure)</p> 	<p>Handa's Surprise (Eileen Brown)</p> <p>Once There Were Giants (Martin Waddell and Penny Dale)</p> <p>Tadpole's Promise (Jeanne Willis and Tony Ross)</p> <p>Key Scientists: David Attenborough (Naturalist and Nature Documentary Broadcaster)</p> 	<p>Funnybones (Janet and Allan Ahlberg)</p> <p>I Will Never Not Ever Eat a Tomato (Lauren Child)</p> <p>Goldilocks and the Three Bears (Samantha Berger)</p> <p>Key Scientists: Marie Curie (Radiation / X Rays)</p> 	<p>Gut Garden (Katie Brosnan)</p> <p>Look Inside: What Happens When You Eat? (Emily Bone and Stefano Tognetti)</p> <p>Your Brilliant Body: Your Growling Guts and Dynamic Digestive System (Paul Mason)</p> <p>Key Scientists: Washington Sheffield (Toothpaste)</p> 	<p>Humans Body Odyssey (Werner Holzwarth)</p> <p>Crocodiles Don't Brush Their Teeth (Colin Fancy)</p> <p>Wolves (Emily Gravett)</p> <p>Key Scientists: Dame Anne McLaren (IVF)</p> <p>Ivan Pavlov (Digestive System Mechanisms)</p> <p>Joseph Lister (Discovered Antiseptics)</p> 	<p>Pig-Heart Boy (Malorie Blackman)</p> <p>Skellig (David Almond)</p> <p>A Heart Pumping Adventure (Heather Manley)</p> <p>Key Scientists: Marie Maynard Daly (Cholesterol)</p> <p>Tu Youyou (Treatment for Malaria)</p> <p>Professor Dame Sarah Gilbert (Covid)</p> 	





Science Progression Map

Everyday materials	Summers (A and B)	Pendower (A and B)	Porthurnick (B)	Portholland (A)
	<p>-Distinguish between an object and the material from which it is made.</p> <p>-Identify and name a variety of everyday materials, including 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>-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> <p>-Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</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>	<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>-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>
	Uses of everyday materials			Properties and Changes of Materials
Vocabulary				
rough/smooth, flat/bumpy, sharp/blunt, wood, metal, plastic, glass, rock, materials, properties, sharp/blunt useful	material, properties, absorbency, waterproof, strong, weak, hypothesis, absorbency, resist, melting, particles, changing shape, twist/twisting, squash/squashing, bend/bending, stretch/stretching, material, properties, rigid, flexible, stiff, strong, tear, rip, weight, grams, concertina		solid, liquid, state, matter, particle, grain, category, classify, group, evidence, question, discuss, gas, state, particles, evidence, proof, explain, solidifying, freezing, melting, condensing, evaporating, particles, thermometer, temperature, Celsius, Fahrenheit, degrees, ice, rain, clouds, vapour, Evaporation, condensation, precipitation, transpiration, cycle, particle	variables, accuracy, precision, enquiry, solid, liquid, gas, dissolve, soluble, solute, solution, line graph, enquiry, soluble, insoluble, filter, sieve, magnet/ism, evaporation, solution, soluble, insoluble, new material, gives off gas, mixture, reversible, irreversible, evaporation, sieving, filtering, magnets, heating, burning, cooking, reaction
Books and Key Scientists				
<p>Iggy Peck Architect (Andrea Beaty)</p> <p>Let's Build a House (Mick Manning)</p> <p>The Building Boy (Ross Montg)</p> <p>Key Scientists: Charles Macintosh (Waterproof garments)</p> 	<p>The Tin Forest (Helen Ward)</p> <p>Traction Man (Mini Grey)</p> <p>Three Little Pigs (Lesley Sims)</p> <p>Key Scientists::</p> <p>John Boyd Dunlop (Tyres)</p> <p>John McAdam (Tarmac)</p> 			<p>Itch (Simon Mayo)</p> <p>Kensuke's Kingdom (Michael Morpurgo)</p> <p>The BFG (Roald Dahl)</p> <p>Key Scientists: Lord Kelvin (Absolute Zero)</p> <p>Professor Brian Cox (Professor of particle physics)</p> 

Science Progression Map

Seasonal changes	<p>Summers (A and B)</p> <ul style="list-style-type: none"> - Observe changes across the four seasons. -Observe and describe weather associated with the seasons and how day length varies. 					
	Vocabulary					
	rain, snow, storm, thunder, lightning, cloudy, clothing, warm, cold, forecast, rainfall, precipitation, wind, direction, gauge, patterns, data, temperature, thermometer, shadow, sun, earth, spin, day, night, light, dark					
	Books and Key Scientists					
<p>The Weather Girls (AKI Delphone Mach)</p> <p>Tree: Seasons Come, Seasons Go (Patricia Hegarty)</p> <p>Hello Spring (Jo Lindley)</p> <p>Key Scientists: Joseph Henry (Weather Forecasting)</p> 						
Living things and their habitats		<p>Pendower (A and B)</p> <ul style="list-style-type: none"> -Explore and compare the differences between things that are living, dead, and things that have never been alive. -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, including micro-habitats. -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>Portholland (B)</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 dangers to living things. 	<p>Portholland (B)</p> <ul style="list-style-type: none"> -Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. -Describe the life process of reproduction in some plants and animals. 	<p>Porthluney (B)</p> <ul style="list-style-type: none"> -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. -Give reasons for classifying plants and animals based on specific characteristics.
	Vocabulary					
		living, dead, never been alive, categories, classification, needs air, feeds, grows, reproduces, microhabitat, damp/wet/dry, dark/light, features, habitat, savannah, rainforest, tundra, food chain, predator, habitats, dependence, seasons, shady		alive, dead, never been alive, movement, reproduction, sensitivity, nutrition, excretion, respiration, growth, habitat, local, natural, man-made, observation, record, vertebrate, invertebrate, arachnid, question, classify, sort, group, similar, different, branching database, identify, variety, question, explore, key		classification, kingdom, phylum, class, order, family, genus, species, Linnaeus, opinion, similarities, differences, support, refute
	Books and Key Scientists					

Science Progression Map

	<p><i>The Gruffalo</i> (Julia Donaldson)</p> <p><i>Meerkat Mail</i> (Emily Gravett)</p> <p><i>No Place Like Home</i> (Jonathon Emmett)</p> <p>Key Scientists: Jane Goodall (English primatologist)</p> <p>Linda Brown Buck (Reptile's noses)</p> 		<p>The Vanishing Rainforest (Richard Platt)</p> <p>The Morning I Met a Whale (Michael Morpurgo)</p> <p>Journey to the River Sea (Eva Ibbotson)</p> <p>Key Scientists: James Brodie of Brodie (Reproduction of Plants by Spores)</p> <p>Eva Crane (Bee's behaviour)</p> 		<p>Beetle Boy (M G Leonard)</p> <p>Insect Soup (Barry Louis Polisar)</p> <p>Fur and Feathers (Janet Halfmann)</p> <p>Key Scientists: Carl Linnaeus (Identifying, Naming and Classifying Organisms)</p> <p>Libbie Hyman (Invertebrates and Vertebrates)</p> 
		<p>Porthcurnick (B) and RECAP in A</p> <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 from rocks and organic matter. 			
	Vocabulary				
		<p>rock, sandstone, limestone, chalk, granite, slate, marble, classification, observation, petrologist, man-made rocks, brick, tile, concrete, igneous, sedimentary, metamorphic, permeable, impermeable, acid, erosion, marble, chalk, limestone, slate, granite, sandstone, identification key, fossil, ichthyosaur, plesiosaur, ammonite, sediment, minerals, mould, cast</p>			
	Books and Key Scientists				
		<p>The Pebble in My Pocket (Meredith Hooper)</p> <p>Stone Girl, Bone Girl (Laurence Anholt)</p> <p>The Street Beneath My Feet (Charlotte Guillain & Yuval Zommer)</p> <p>Key Scientists: Mary Anning (Discovery of Fossils)</p> <p>Inge Lehmann (Earth's Mantle)</p> <p>Kusala Rajendran (Earthquakes)</p> 			

Rocks

Science Progression Map

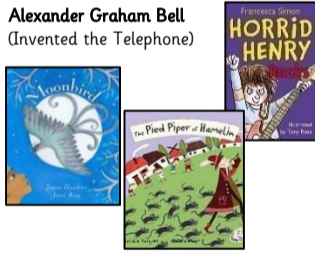
Light		<p style="text-align: center; color: red;">Porthcurnick (B)</p> <ul style="list-style-type: none"> -Recognise that they need light in order to see things and that dark is the absence of light. -Notice that light is reflected from surfaces. -Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. -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 size of shadows change. 			<p style="text-align: center; color: red;">Porthluney (A)</p> <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. 	
	Vocabulary					
			light, white light, visible light, colour, spectrum, refraction, energy, reflector, reflect, predict, investigate, reflective materials, reflect, mirror, reflection, image, concave, convex, transparent, translucent, opaque, shadow			light, light source, dark, reflect/reflective, mirror, shadow, block, absorb, direct/direction, transparent, opaque, translucent, straight, bend, rainbow, colours
	Books and Key Scientists					
		<p>The Owl Who Was Afraid of the Dark (Jill Tomlinson)</p> <p>The Dark (Lemony Snicket)</p> <p>The Firework-Maker's Daughter (Philip Pullman)</p> <p>Key Scientists: Lewis Howard Latimer (Lightbulb)</p> <p>Garrett Morgan (Traffic lights)</p> 			<p>Letters from the Lighthouse (Emma Carroll)</p> <p>The Gruffalo's Child (Julia Donaldson)</p> <p>The King Who Banned the Dark (Emily Haworth-Booth)</p> <p>Key Scientists: Thomas Young (Wave Theory of Light)</p> <p>Ibn al-Haytham (Alhazen) (Light and our Eyes)</p> 	
Forces and magnets		<p style="text-align: center; color: red;">Porthcurnick (A) and RECAP in B</p> <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 or repel each other and attract some materials and not others. -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. -Describe magnets as having two poles. -Predict whether two magnets will attract or repel each other, depending on which poles are facing. 		<p style="text-align: center; color: red;">Porthluney (B)</p> <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. -Identify the effects of air resistance, water resistance and friction, that act between moving surfaces. -Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 		
	Vocabulary					

Science Progression Map



		force, push, pull, theory, fair test, investigate, measure, gravity, contact, magnet, magnetism, fair test, magnetic, non-magnetic, attract, attraction, theory, repel, attraction, repulsion, poles, north, south		support, fall, Earth, gravity, air resistance, friction, balancing force, weight, Newtons, resistance force, variables, friction, moving surfaces, causal relationships, levers, pulleys, transfers, mechanisms		
Books and Key Scientists						
		<p><i>The Iron Man</i> (Ted Hughes)</p> <p><i>Mrs Armitage: Queen of the Road</i> (Quentin Blake)</p> <p><i>Mr Archimedes' Bath</i> (Pamela Allen)</p> <p>Key Scientists: Jan Ingenhousz (Photosynthesis)</p> <p>Joseph Banks (Botanist)</p> <p>George Washington Carver (Crop rotation)</p> 		<p>The Enormous Turnip (Katie Daynes)</p> <p>Leonardo's Dream (Hans de Beer)</p> <p>The Aerodynamics of Biscuits (Clare Helen Welsh)</p> <p>Key Scientists: Galileo Galilei (Gravity and Acceleration)</p> <p>Isaac Newton (Gravitation)</p> 		
States of matter			<p style="text-align: center; color: red;">Porthcurnick (B)</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>			
	Vocabulary					
				<p>solid, liquid, state, matter, particle, grain, category, classify, group, evidence, question, discuss, gas, state, particles, evidence, proof, explain, solidifying, freezing, melting, condensing, evaporating, particles, thermometer, temperature, Celsius, Fahrenheit, degrees, evaporation, condensation, precipitation, particle, state, liquid, gas, solid, ice, rain, clouds, vapour, particle</p>		
Books and Key Scientists						
			<p>Charlie and the Chocolate Factory (Roald Dahl)</p> <p>Once Upon a Raindrop: The Story of Water (James Carter)</p> <p>Sticks (Diane Alber)</p> <p>Key Scientists: Anders Celcius (Celcius Temperature Scale)</p> <p>Daniel Fahrenheit (Fahrenheit Temperature Scale / Invention of the Thermometer)</p> 			

Science Progression Map

Sound				<p>Portholland (A) and RECAP in B</p> <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 features of the object that produced it. -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. 		
	Vocabulary					
				<p>sound, listen, hear, ears, noise, loud, quiet, silent, vibrations, transmit, medium, air, water, solid, vibrations, source, sound waves, particles, travel, volume, loudness, amplitude, pitch, soundwave, frequency, sound waves, sign language, investigation, fair-test, factor (variable), prediction, results, resources, planning, muffle</p>		
	Books and Key Scientists					
			<p>Horrid Henry Rocks (Francesca Simon)</p> <p>Moonbird (Joyce Dunbar)</p> <p>The Pied Piper of Hamelin (Natalia Vasquez)</p> <p>Key Scientists: Aristotle (Sound Waves)</p> <p>Gaillieo Galilei (Frequency and Pitch of Sound Waves)</p> <p>Alexander Graham Bell (Invented the Telephone)</p>			




Science Progression Map

Electricity				<p>Portholland (B) and RECAP in A</p> <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 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. -Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. -Recognise some common conductors and insulators, and associate metals with being good conductors. 		<p>Porthluney (B) and RECAP in A</p> <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 bulbs, the loudness of buzzers and the on/off position of switches. -Use recognised symbols when representing a simple circuit in a diagram.
	Vocabulary					
				<p>electricity, circuit, switch, battery, plug, mains, appliance, device, wire, crocodile clip, bulb, buzzer, connection, power, cell, electrocute, danger, flow, current, conductor, insulator</p>		<p>electricity, electrical circuit, complete circuit, circuit symbol, components, cell, battery, positive/negative, connect/connection, loose connection, wire, crocodile clip, bulb, bright/dim, switch, buzzer, volume, motor, fast(er)/slow(er), voltage, current, conductor, insulator, metal/non-metal, enquiry question, investigation, findings</p>
	Books and Key Scientists					
			<p>Until I Met Dudley (Roger McGough)</p> <p>Oscar and the Bird: A Book about Electricity (Geoff Waring)</p> <p>Electrical Wizard: How Nikola Tesla Lit Up the World (Elizabeth Rusch)</p> <p>Key Scientists: Thomas Eddison (First Working Lightbulb)</p> <p>Joseph Swan (Incandescent Light Bulb)</p> <p>Sir Charles Kao (Fibreoptics)</p> 		<p>Goodnight Mister Tom (Michelle Magorian)</p> <p>Blackout (John Rocco)</p> <p>Hitler's Canary (Sandi Toksvig)</p> <p>Key Scientists: Alessandro Volta (Electrical Battery)</p> <p>Nicola Tesla (Alternating Currents)</p> 	
Earth and Space					<p>Portholland (B) and RECAP in A</p> <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. 	

Science Progression Map

Vocabulary						
				Earth, planets, Sun, solar system, Moon, celestial body, sphere/spherical, rotate/rotation, spin, night & day, orbit, opinion/fact, , support/refute, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, 'dwarf' planet, orrery		
Books and Key Scientists						
				<p>The Skies Above My Eyes (Charlotte Guillain & Yuval Zommer)</p> <p>George's Secret Key to the Universe (Lucy and Stephen Hawking with Christophe Galfard)</p> <p>The Way Back Home (Oliver Jeffers)</p> <p>Key Scientists: Mae Jemison (Astronaut)</p> <p>Claudius Ptolemy and Nicolaus Copernicus (Heliocentric vs Geocentric Universe)</p> <p>Neil de Grasse Tyson (Declassification of Pluto)</p> 		
Evolution and inheritance					<p style="color: red; text-align: center;">Porthluney (A)</p> <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>	
	Vocabulary					
					offspring, characteristics, vary/variation, inherit/inheritance, environmental variation, suited/suitable, environment, adaptation, natural selection, fossils, theory, opinion, cladogram	
Books and Key Vocabulary						

Science Progression Map

						<p>One Smart Fish (Christopher Wormell)</p> <p>The Molliebird (Jules Pottle)</p> <p>Our Family Tree (Lisa Westberg Peters)</p> <p>Key Scientists: Charles Darwin and Alfred Russel Wallace (Theory of Evolution by Natural Selection)</p> <p>Jane Goodall (Chimpanzees)</p> <p>Mary Leakey (Fossils)</p> 
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