

Science Curriculum

Working Scientifically

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1 Review the length of the day across the year – half termly	<p>Key Knowledge and Skills: Everyday Materials (Childhood)</p> <p>-distinguish between an object and the material from which it is made -identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock -describe the simple physical properties of a variety of everyday materials -compare and group together a variety of everyday materials on the basis of their simple physical properties</p> <p>Essential Learning: Engage 1-2 Develop- 1, 3 Innovate- 1</p> <p>Resources -Raw natural materials -Simple products made from natural materials -Sticky notes -Photographs of objects -Spray bottles -Hoops - Tissue paper, soft and coloured plastic or cellophane, foil, rigid plastic, oilcloth, cotton fabric, nylon, newspaper</p> <p>WS Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>Key Knowledge and Skills: Human Senses (Childhood)</p> <p>- describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) -identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</p> <p>Essential Learning Engage- 1 Develop- 1, 2, 4</p> <p>Resources -Large pieces of paper (anchor charts) - Clean yoghurt pots Items to smell: coffee granules, mint leaves, orange slices, cotton wool, perfume and vinegar Clean pair of tights Elastic bands Sticky labels Pen Spoons Plastic cups Foods to taste: lemon, melon, orange, pear and raspberry Shoe boxes Materials to touch: metal cutlery, plastic wrap, fabric scraps, rubber gloves and sand - Blindfolds or hats Rings or blocks of different sizes Sandpapers of different grades Bottle filled with frozen water Bottle filled with water at room temperature Bottle filled with hand-hot (warm) water Several bottles filled with different volumes of water Tray Several of the same object Paper straws of different lengths Several objects of different colours Selection of toddler's insert jigsaws</p> <p>WS</p>	<p>Key Knowledge and Skills: Seasonal Changes (Bright Lights, Big City)</p> <p>-observe changes across the four seasons -observe and describe weather associated with the seasons and how day length varies.</p> <p>Essential Learning: Introductory Knowledge Engage 1, 2, 3, 4, 5, Develop 1,</p> <p>Resources -Large envelop -Twigs from deciduous and evergreen trees</p> <p>WS Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>Key Knowledge and Skills: Plants – Plant Parts (School Days)</p> <p>-identify and name a variety of common wild and garden plants, including deciduous and evergreen trees - identify and describe the basic structure of a variety of common flowering plants, including trees.</p> <p>Essential Learning: Introductory Knowledge Engage 1, 2, 3, Develop 1</p> <p>Resources: -Hand Magnifiers - Plant tags or lollipop sticks -Clipboards -Range of seeds, including coconuts, beans, corn, rice, peas, marigolds, chai and sunflowers -Range of bulbs, including seed onions, garlic, daffodils, tulips and crocuses</p> <p>WS Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>Key Knowledge and Skills: Animal Parts (School Days)</p> <p>-identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals -identify and name a variety of common animals that are carnivores, herbivores and omnivores -describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</p> <p>Essential Learning Introductory Knowledge Engage- 1, 2 Develop 2 Innovate- 1, 2</p> <p>Resources -Earthworms -Tray of damp soil -Shallow trays -Hand lenses or digital microscopes</p> <p>WS Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	

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2	<p><u>Key Knowledge and Skills: Human Survival (Movers and Shakers)</u></p> <ul style="list-style-type: none"> - notice that animals, including humans, have offspring which grow into adults -find out about and describe the basic needs of animals, including humans, for survival (water, food and air) -describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene <p><u>Essential Learning</u> Engage 1, 2 Develop- 1-3</p> <p><u>Resources</u> - Timers -Masking tape -Pencils -30cm rulers</p> <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p><u>Key Knowledge: Animal Survival (Movers and Shakers)</u></p> <ul style="list-style-type: none"> -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 microhabitats -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><u>Essential Learning</u> Introductory knowledge Engage- 1, 2, 4, 5 Innovate 1</p> <p><u>Resources</u> - Trays and nets Pooters -brushes -plastic spoons -Plastic containers -Hand lenses -White sheets -Clipboards -Spotting sheets -identification charts -tablets with identification apps</p> <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p><u>Key Knowledge: Uses of Materials (Coastline)</u></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 -find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching <p><u>Essential Learning</u> Engage 2 Develop 1</p> <p><u>Resources</u> <u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p><u>Key Knowledge and Skills: Plant Survival (Coastline)</u></p> <ul style="list-style-type: none"> - observe and describe how seeds and bulbs grow into mature plants -find out and describe how plants need water, light and a suitable temperature to grow and stay healthy <p><u>Essential Learning</u> Introductory Knowledge Engage- 1, 2 Develop- 2 Innovate- 3</p> <p><u>Resources</u> <u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p><u>Key Knowledge and Skills: Animal Survival (Magnificent Monarchs)</u></p> <ul style="list-style-type: none"> - notice that animals, including humans, have offspring which grow into adults - find out about and describe the basic needs of animals, including humans, for survival (water, food and air) <p><u>Essential Learning</u> Engage 3 Develop 1-4 Innovate 1-5</p> <p><u>Resources</u> - Range of information sources, such as books and the internet - 30 live mealworms -Plastic tubs with lids -Hand lenses or digital microscopes -Bran flakes -Potato pieces -Cardboard -Range of materials, such as wooden pallets, terracotta pots, bricks with holes, small logs, a large container such as a washing bowl, woody prunings, strips of wood, sticks, small pieces of bamboo cane, moss, dry leaves, straw, pine cones, soil, sand, pebbles, stones, coconut shells and yoghurt pots -Range of equipment, including saws, hammers, spades and glue guns -Range of joining materials, including glue gun sticks, string, hooks and nails -Range of animal foods, including nuts, seeds, mealworms and fats for birds and wet or dry cat food for hedgehogs -Range of safety equipment, including gardening gloves, goggles and kneelers</p> <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>

3	<p><u>Key Knowledge and Skills</u> <u>Animal Nutrition and the Skeletal System (Through the Ages)</u></p> <p>- nutrition, and that they cannot make their own food; they get nutrition from what they eat -identify that humans and some other animals have skeletons and muscles for support, protection and movement</p> <p><u>Essential Learning</u></p> <p>Introductory Knowledge Engage – 1-4 Develop 1-4</p> <p><u>Resources</u> -sticky labels -30cm lengths of cardboard tubes, such as postal tubes -Non-bendy plastic straws -Pieces of string slightly longer than the straws -Scissors -Water bottles -Range of invertebrates collected from outside or live animal feeds bought from a pet shop, such as earthworms, snails, centipedes, woodlice, grasshoppers and crickets -Hand lenses and digital microscopes</p> <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p><u>Key Knowledge and Skills</u> <u>Forces and Magnets (Rocks, Relics and Rumbles)</u></p> <p>-compare how things move on different surfaces -notice that some forces need contact between 2 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 2 poles predict whether 2 magnets will attract or -repel each other, depending on which poles are facing</p> <p><u>Essential Learning</u></p> <p>Introductory Knowledge Engage 1, 2, 4 Develop- 1, 2, 4 Innovate- 1-4</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> Sets of five different magnets (such as bar, horse shoe and neodymium magnets) labelled 1–5 using small pieces of masking tape (one set per group) Push/pull force meters Index cards Paperclips Squared paper Rulers and pencils <p><u>WS</u> Observing, measuring and recording Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p><u>Key Knowledge and Skills</u> <u>Plant Nutrition and Reproduction (Emperors and Empires)</u></p> <p>-identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers -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 -investigate the way in which water is transported within plants -explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</p> <p><u>Essential Learning</u></p> <p>Introductory Knowledge Engage – 1, 2 Develop – 1-4</p> <p><u>Resources</u> -Flowering tomato plants -Fresh tomatoes -Examples of taproots, such as carrots or parsnips -Examples of fibrous roots, such as grasses and garden turf -Microscopes or hand lenses -Graduated beakers -Red or blue food dye -Teaspoons -Celery sticks with -leaves -Rulers -Knives and chopping boards -Tomato, radish or rocket seeds for planting (optional) -Cut flowers, such as lilies, wild garlic, campanula, foxgloves and geraniums Jars of water -Range of non-fiction books about flowering plants and pollination -Raisins</p> <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests,</p>	<p><u>Key Knowledge and Skills</u> <u>Light and Shadows (Emperors and Empires)</u></p> <p>-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> <p><u>Essential Learning</u></p> <p>Introductory Knowledge Engage – 2, 3, 4, 5 Develop 1-3 Innovate - 4</p> <p><u>Resources</u> -Range of light sources, such as torches, battery-operated fairy lights, tealights and glow sticks -Range of light reflectors, such as a mirror, high-vis vest and bike reflectors -Sealed cardboard box with a hole in the side -Mini whiteboards and drywipe pens -Range of test materials, such as foil, mirrored card, cellophane, paper of different colours including white and black, fluorescent fabric or paper, cardboard, felt, satin and reflective tape -Pen torches -Hollow cardboard tubes, such as from kitchen rolls or cling film -Trays of cold water A5 ziplock bags -Sun creams (expensive and cheap brands with the same SPF) -Permanent marker pens, pencils and rulers -Timers -Tissues</p>
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					<p>suggest answers to questions</p> <p>-Transparent, translucent and opaque materials and objects</p> <p>-</p> <p>WS Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>
4	<p><u>Key Knowledge and Skills</u> <u>Food and the Digestive System (Invasion)</u></p> <p>-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 -construct and interpret a variety of food chains, identifying producers, predators and prey</p> <p><u>Essential Learning</u></p> <p>Develop – 1, 2 Engage – 1, 2</p> <p><u>Resources</u> -Teeth models (optional) -Mirrors -Access to soap and water for handwashing or hand sanitiser</p> <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests,</p>	<p><u>Key Knowledge and Skills</u> <u>Sound (Invasion)</u></p> <p>-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</p> <p><u>Essential Learning</u></p> <p>Introductory Knowledge Engage – 1, 2, 3 Develop – 2, 3, 4</p> <p><u>Resources</u> -Range of musical instruments, including</p>	<p><u>Key Knowledge and Skills</u> <u>States of Matter (Misty Mountains, Winding River)</u></p> <p>-compare and group materials together, according to whether they are solids, liquids or gases -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) -identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p> <p><u>Essential Learning</u></p>	<p><u>Key Knowledge and Understanding</u> <u>Grouping and Classifying (Misty Mountains, Winding River)</u></p> <p>-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> <p><u>Essential Learning</u></p> <p>Engage – 1, 2 Develop – 1, 2, 3, 4, 5 Innovate - 1</p> <p><u>Resources</u> -Envelopes</p>	<p><u>Key Knowledge and Skills</u> <u>Electrical Circuits and Conductors (Ancient Civilisations)</u></p> <p>-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> <p><u>Essential Learning</u> Introductory Knowledge Engage – 1, 2, 3 Develop 1 – 1, 4 Innovate 3</p> <p><u>Resources</u> -Range of circuit components, including cells, battery holders, lamps, buzzers, motors with propellers, switches and wires -Short pieces of single core PVC/copper wire -Safety wire strippers -Plugs -3-core flexible cable -Electrical tape</p>

	<p>suggest answers to questions</p>	<p>woodwind, brass, strings and percussion, that can be struck, scraped or shaken</p> <p>-Disinfectant cleaning spray or wipes</p> <p>-Drums</p> <p>-Dry rice</p> <p>-Drum sticks or beaters</p> <p>-Slinky spring</p> <p>WS</p> <p>Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>Introductory Knowledge</p> <p>Engage – 1</p> <p>Develop – 1, 2, 4</p> <p>Resources</p> <p>-Range of solids, such as plastic, glass and ceramic</p> <p>Range of liquids in jars and containers, such as honey, vinegar and milk</p> <p>-Filled balloons and syringes to represent gases, such as helium and argon</p> <p>-Unusual materials, such as shaving foam, hand sanitiser gel and sugar</p> <p>-Chocolate buttons</p> <p>-Crushed ice</p> <p>WS</p> <p>Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>-Labelled potted flowering plants, conifers and ferns</p> <p>-Hand lenses</p> <p>WS</p> <p>Reporting and concluding</p> <p>Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>-BBC micro:bit v2 starter kits</p> <p>-Range of circuit components</p> <p>-Junk modelling materials, such as cardboard, plastic containers, glass jars, art straws and willow sticks</p> <p>-Joining materials</p> <p>-Range of papers, including printing paper, greaseproof paper, crepe paper and tissue paper</p> <p>-Coloured acetate or transparent sweet wrappers</p> <p>-Marker pens</p> <p>-Craft punches</p> <p>-Stencils</p> <p>-Geometric shapes</p> <p>-Thin fabric or lace</p> <p>WS</p> <p>Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>
5	<p>Key Knowledge and Skills</p> <p>Forces and Mechanisms (Dynamic Dynasties)</p> <p>-explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>-identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>-recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</p> <p>Essential Learning</p> <p>Introductory Knowledge</p> <p>Engage – 1</p> <p>Develop 1 – 1-3</p> <p>Develop 2 – 1-3</p> <p>Innovate – 1, 3, 4</p> <p>Resources</p> <p>-Rulers</p> <p>-String</p> <p>-Paperclips</p> <p>-Beanbags</p> <p>-Identical plastic bottles</p> <p>-Water</p> <p>-Toy cars</p> <p>-Large foam wedges, (such as wedge pillows,</p>	<p>Key Knowledge and Skills</p> <p>Earth and Space (Dynamic Dynasties)</p> <p>-describe the movement of the Earth and other planets relative to the sun in the solar system</p> <p>-describe the movement of the moon relative to the Earth</p> <p>-describe the sun, Earth and moon as approximately spherical bodies</p> <p>use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky</p> <p>Essential Learning</p> <p>Introductory knowledge</p> <p>Engage – 2, 3</p> <p>Develop 1 – 1, 2, 3, 4</p> <p>Develop 2 – 1, 2</p> <p>Innovate – 1, 2, 3, 4, 5</p> <p>Resources</p> <p>-Large, inflatable ball</p> <p>-Peppercorn</p> <p>-Grape</p> <p>-Cherry tomato</p> <p>-Blueberry</p> <p>-Honeydew melon</p> <p>-Grapefruit</p> <p>-Apple</p> <p>-Satsuma</p>	<p>Key Knowledge and Skills</p> <p>Human Reproduction and Ageing (Sow, grow and farm)</p> <p>- describe the changes as humans develop to old age</p> <p>- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>-describe the life process of reproduction in some plants and animals</p> <p>Essential Learning</p> <p>Introductory knowledge</p> <p>Engage – 1, 2, 3, 4, 5</p> <p>Develop – 1, 3, 5</p> <p>Resources</p> <p>-Hoops</p> <p>WS</p> <p>Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>Key Knowledge and Skills</p> <p>Properties and Changes of Materials (Ground breaking Greeks)</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> <p>Essential Learning</p> <p>Engage – 1, 2, 4</p> <p>Develop 1 – 2, 3</p> <p>Resources</p> <p>-Bright torches</p> <p>-Cardboard tubes</p> <p>-Hand lenses</p> <p>-Pipettes</p> <p>-Containers of water</p> <p>-Spray bottles</p> <p>-Bar magnets</p>	

	<p>yoga wedges or firm upholstery foam cut to size) or other equipment to make stable ramps</p> <p>-Measuring tape</p> <p>-Range of thin, flexible sheet materials including plastic, fabric and different paper types, such as printer paper, tissue paper and card</p> <p>-Plasticine</p> <p>-2 litre plastic bottles or other tall, wide, transparent vessels</p> <p>WS Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>-Scissors</p> <p>-Sticky tack</p> <p>-Sharp pencils</p> <p>-Split pins</p> <p>-Small toy boats or figures</p> <p>-Football, exercise balls or other large spheres</p> <p>-Globe</p> <p>-Lamp without a shade</p> <p>-Small world figure</p> <p>-Plant pots</p> <p>-Small stones</p> <p>-Soil</p> <p>-Trowels</p> <p>-Sticky labels</p> <p>-Pens</p> <p>-Long, straight sticks</p> <p>-Compasses</p> <p>-Chalk</p> <p>-Clocks or watches</p> <p>-Hard surface outdoors, such as the playground</p> <p>-Paper plates</p> <p>-Felt tip pens</p> <p>-White foam ball</p> <p>WS Research Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<p>-Circuit-building equipment, including wires, cells or batteries, battery holders and lamps</p> <p>-Stopwatches or timers</p> <p>-Steel paper clips</p> <p>-Rulers</p> <p>-Range of everyday materials for testing, cut to a similar size, such as cardboard, cotton, Balsa wood, glass microscope slides, paper, towelling, Lycra, aluminium foil, plastic wrap, rubber or silicone matting, oil cloth, assorted metal strips and Faraday film</p> <p>-Thermometers</p> <p>-Data loggers with temperature sensors (optional)</p> <p>-Beakers, small pots or test tubes (plus test tube holders if needed)</p> <p>-Timers</p> <p>-Range of materials to test, such as cotton, bubble wrap, felt, fleece, paper, card, foil, foam sheet, cling film and Lycra</p> <p>-Masking tape, sticky tape or elastic bands</p> <p>-Graph Paper</p> <p>-Dirty water samples in jars or beakers</p> <p>-Filter paper</p> <p>-Funnels</p> <p>-Clean jars or beakers</p> <p>-Muslin sheeting, netting, clean socks and clean tights</p> <p>-Gravel or grit</p> <p>-Charcoal</p> <p>-Sand</p> <p>-Cotton wool</p> <p>-Cameras or tablets</p> <p>-Beakers</p> <p>-Salt</p> <p>-Instant coffee granules</p> <p>-Shallow dishes or saucers</p> <p>-Digital scales</p> <p>-Measuring cylinders</p> <p>-Spoons</p> <p>-Warm water</p> <p>WS Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>
6	<p>Key Knowledge and Skills: Circulatory System (Maafa)</p> <p>-identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>-recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>-describe the ways in which nutrients and water are transported within animals, including humans.</p> <p>Essential Learning Introductory Knowledge Engage- 1-4 Develop 1- 3 Develop 2- 1, 2</p> <p>Resources -Sheep hearts (optional) -Sharp scissors (optional) -Trays -Measuring cylinders -Syrup -Beakers -Spoons or stirrers -Red food colouring -Test tubes -Rulers -Pipettes -Milk -Vegetable oil</p>	<p>Key Knowledge and Skills: Electrical Circuits and Components (Frozen Kingdom)</p> <p>-associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>-compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p>-use recognised symbols when representing a simple circuit in a diagram.</p> <p>Essential Learning Introductory Knowledge Engage 3 Develop- 1-3</p> <p>Resources -Range of circuit components, including cells, batteries, lamps, motors, buzzers, LEDs, open and closed switches and wires</p> <p>-Range of cells, including AA, AAA, D and 9V</p> <p>-Battery holders for two AAA cells</p> <p>-Voltmeter or multimeter</p> <p>-Battery-operated toys or equipment</p> <p>-Range of circuit components, including lamps, wires and switches</p> <p>-New AAA cells and battery holders</p>	<p>Key Knowledge and Skills: Evolution and Inheritance (Britain at War)</p> <p>Evolution and Inheritance</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> <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 microorganisms, plants and animals</p> <p>-give reasons for classifying plants and animals based on specific characteristics.</p> <p>Essential Learning Introductory Knowledge Engage- 1, 2, Develop- 2, 3, 4</p> <p>Resources -Fossils (optional)</p>

	<ul style="list-style-type: none"> -Test tube holders -Heart rate monitors or smartwatches -Stopwatches or timers -A wide range of food packaging displaying traffic light nutrition labels, including foods high in sugar, salt and fat -Measured samples of lard, sugar and salt <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<ul style="list-style-type: none"> -Data loggers with light sensor or light meter app on a tablet <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>	<ul style="list-style-type: none"> -Food of different shapes, sizes, textures and consistencies, such as poppy seeds, linseeds, oats, pumpkin seeds, unshelled walnuts, almonds, peanuts, dried spaghetti pieces, sultanas or dates -Range of tools, such as tweezers, chopsticks, spoons, skewers, tongs and pipettes -Shallow pots -Tablespoons -Paper plates -Timers -Access to two holly trees or bushes, one trimmed and one untrimmed -Sandwich bags, envelopes or plastic wallets -Marker pens and scissors -Graph paper -Calculators (optional) <p><u>WS</u> Identify, classify, questioning, observe, perform simple tests, suggest answers to questions</p>
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