



Science

Equipment list

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Some items on the Science equipment list can now be accessed and used through apps downloaded to devices, offering an alternative to traditional data collection methods (for example, thermometers, stopwatches, light metres, etc.).

EYFS (Reception) : Equipment list

<u>Animal adventures</u>	I am a scientist - coming soon!	Our beautiful planet - coming soon!
<ul style="list-style-type: none"> <input type="checkbox"/> PE hoops. <input type="checkbox"/> Objects for sorting living and non-living things (e.g. a potted plant, an insect in a lidded box, a seed, a water bottle, etc). <input type="checkbox"/> Device for taking photos. <input type="checkbox"/> Lidded box with breathing holes to collect minibeasts. <input type="checkbox"/> 'What the ladybird heard' storybook by Julia Donaldson. <input type="checkbox"/> Small world farm animals. <input type="checkbox"/> Building equipment for making animal pens (e.g. wooden blocks, plastic blocks or magnetic tiles). <input type="checkbox"/> 'Dear zoo' storybook by Rod Campbell. <input type="checkbox"/> Eight small world animals to represent the animals in the 'Dear zoo' storybook (see Lesson 5 for an alternative resource if needed). 	<ul style="list-style-type: none"> <input type="checkbox"/> 'The Enormous Turnip' storybook. <input type="checkbox"/> Everyday objects that demonstrate movement when pushed or pulled. <input type="checkbox"/> Sticky notes. <input type="checkbox"/> A device for taking photos. <input type="checkbox"/> Paper cups. <input type="checkbox"/> Paper straws. <input type="checkbox"/> Sticky tack. <input type="checkbox"/> Percussion instruments. <input type="checkbox"/> String. <input type="checkbox"/> 'Peace At Last' storybook by Jill Murphy (optional). <input type="checkbox"/> PE hoops. <input type="checkbox"/> Everyday objects that float or sink. <input type="checkbox"/> Tin foil. <input type="checkbox"/> 100 pennies. <input type="checkbox"/> Chalk. <input type="checkbox"/> 'The Polar Bear and the Snow Cloud' storybook by Jane Cabrera. <input type="checkbox"/> Animal-shaped ice cubes (also used in Year 4: States of Matter). <input type="checkbox"/> Plastic pot with lid. <input type="checkbox"/> Fabric. <input type="checkbox"/> Chocolate buttons. <input type="checkbox"/> Hot water bottle. <input type="checkbox"/> 'Can't You Sleep Little Bear?' storybook by Martin Waddell. <input type="checkbox"/> 'Wow! Said the Owl' storybook by Tim Hopgood. <input type="checkbox"/> Toilet rolls. <input type="checkbox"/> Cling film. <input type="checkbox"/> Elastic bands. <input type="checkbox"/> Foam stickers. <input type="checkbox"/> Torches. <input type="checkbox"/> Toy owl (optional). 	

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Changing seasons (Across the year)

<p>Autumn 1</p> <p><u>Lesson 1: Autumn treasures</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Carrier bags or bags for life for collecting autumn objects. <input type="checkbox"/> Access to a variety of autumn objects like twigs, leaves and conkers. <input type="checkbox"/> Long strips of paper for leaf rubbings. <input type="checkbox"/> A selection of leaves for leaf rubbings. <input type="checkbox"/> Brown, yellow, red and orange crayons. 	<p>Spring 1</p> <p>Lesson 3: Autumn treasures</p> <ul style="list-style-type: none"> <input type="checkbox"/> Paper plates <input type="checkbox"/> Modelling dough <input type="checkbox"/> Twigs and sticks. <input type="checkbox"/> Peppercorns or sunflower seeds. 	<p>Summer 1</p> <p>Lesson 5: Sandcastle science</p> <ul style="list-style-type: none"> <input type="checkbox"/> Large sand tray. <input type="checkbox"/> At least 20 kg dry sand. <input type="checkbox"/> Plastic/paper cups. <input type="checkbox"/> A range of media for colouring flowers, e.g. oil pastels, chalk pastels, coloured pencils and felt tip pens.
<p>Autumn 2</p> <p><u>Lesson 2: Whatever the weather</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> None. 	<p>Spring 2</p> <p>Lesson 4: Spring to life</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bluetooth music system to use outside (optional). <input type="checkbox"/> Device for taking photos. 	<p>Summer 2</p> <p>Lesson 6: Seaside senses</p> <ul style="list-style-type: none"> <input type="checkbox"/> Large plastic tray filled with sand and seashells. <input type="checkbox"/> Large plastic tray filled with cold water and seaweed. <input type="checkbox"/> Blindfolds (optional). <input type="checkbox"/> Chalk.

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Year 1: Equipment list

<u>Seasonal changes</u>	<u>Everyday materials</u>	<u>Sensitive bodies</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Small tree branches (one between four). <input type="checkbox"/> Strips of white card (one each). <input type="checkbox"/> A4 card (white, grey, blue and yellow). <input type="checkbox"/> String. <input type="checkbox"/> Masking tape. <input type="checkbox"/> 1 doll, puppet or teddy bear. <input type="checkbox"/> Suncream and sunglasses (optional). <input type="checkbox"/> Sticky notes. <input type="checkbox"/> Poster paints (light pink, light green, dark green, red, orange, yellow and brown). <input type="checkbox"/> Paint trays. <input type="checkbox"/> 3 containers (preferably transparent). <input type="checkbox"/> A selection of different thermometers e.g. digital, traditional glass and forehead strips). <input type="checkbox"/> 4 thermometers. <input type="checkbox"/> Devices for recording video (one between two). 	<ul style="list-style-type: none"> <input type="checkbox"/> Materials box with 30 everyday objects made from various materials (wood, plastic, glass, metal, rock and fabric). <input type="checkbox"/> 6 PE hoops. <input type="checkbox"/> 1 camera or device for taking photos. <input type="checkbox"/> Sticky notes (pink and green). <input type="checkbox"/> 1 tea towel. <input type="checkbox"/> Textured materials (e.g. corrugated cardboard, foil, bubble wrap, tissue paper, feathers, wool, small pom-poms and glitter). <input type="checkbox"/> Shallow trays (one between six). <input type="checkbox"/> Teaspoons, 5 ml measuring spoons or 5 ml syringes (one between six). <input type="checkbox"/> Pre-cut squares of absorbent, non-absorbent, waterproof and non-waterproof materials (e.g. cotton wool, paper towel, fabric, felt, plastic bag, foil, greaseproof paper and cling film). <input type="checkbox"/> Selection of clothing. <input type="checkbox"/> Plastic cups or yoghurt pots (one each). <input type="checkbox"/> Elastic bands (one each). <input type="checkbox"/> Paper towels. <input type="checkbox"/> Sticky tack. <input type="checkbox"/> Materials for testing toughness (e.g. plastic, denim, rubber, silicone, hessian, cotton wool, cardboard, felt and crayon). 	<ul style="list-style-type: none"> <input type="checkbox"/> Roll of large drawing paper the size of a child (one between three). <input type="checkbox"/> 1 small bag of popcorn. <input type="checkbox"/> Blindfolds (e.g. a scarf or tea towel). <input type="checkbox"/> Connecting cubes (approximately 30 between six). <input type="checkbox"/> Cardboard box (one for a feely box). <input type="checkbox"/> Everyday objects for a feeling challenge (e.g. feather, seashell, potato, key and coin). <input type="checkbox"/> Rubber gloves (one pair). <input type="checkbox"/> Sweet, salty, bitter and sour food samples for tasting (e.g. sweets, crisps, spinach and lemon). <input type="checkbox"/> Disposable gloves (one for the teacher). <input type="checkbox"/> 6 aromatic items for a smelling test (e.g. coffee, banana, garlic, toothpaste and spices). <input type="checkbox"/> 12 opaque containers covered with fabric. <input type="checkbox"/> Clipboards (one each). <input type="checkbox"/> Rubber floor markers or beanbags (one each). <input type="checkbox"/> 1 percussion instrument (e.g. egg shaker). <input type="checkbox"/> 6 opaque pots with lids. <input type="checkbox"/> 6 items for a listening challenge (e.g. rice, marbles, leaves and coins).

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Year 1: Equipment list

<u>Comparing animals</u>	<u>Introduction to plants</u>	<u>Investigating Science through stories</u>
<ul style="list-style-type: none"> <input type="checkbox"/> 5 PE hoops. <input type="checkbox"/> 1 camera or device for taking photos <input type="checkbox"/> Craft materials (e.g. feathers, fur, foil, felt and coloured paper). <input type="checkbox"/> Sticky notes (two different colours). <input type="checkbox"/> 'Dear Zoo' storybook by Rod Campbell. <input type="checkbox"/> Connecting cubes of different colours. <input type="checkbox"/> Toilet rolls to make binoculars (two each). <input type="checkbox"/> Craft materials to decorate binoculars. <input type="checkbox"/> Masking tape. <input type="checkbox"/> Sticky labels (one each). <input type="checkbox"/> Clipboards (one each). <input type="checkbox"/> Green fabric (optional). <input type="checkbox"/> Chimpanzee toys (optional). 	<ul style="list-style-type: none"> <input type="checkbox"/> Devices for taking photos (one between two). <input type="checkbox"/> Transparent plastic cups (one each). <input type="checkbox"/> Beans (for planting - one each). <input type="checkbox"/> Sticky labels (one each). <input type="checkbox"/> Sticky notes. <input type="checkbox"/> Small watering can (optional). <input type="checkbox"/> A selection of at least 15 flowering plants (with their roots, stems, leaves and flowers intact). <input type="checkbox"/> Magnifying glasses (one between two). <input type="checkbox"/> Devices for recording video (one between four). <input type="checkbox"/> Access to an outdoor space with plants, including trees. <input type="checkbox"/> Clipboards (one each). <input type="checkbox"/> A selection of wild and garden flowers (optional). <input type="checkbox"/> 2 PE hoops. <input type="checkbox"/> Carrier bags (one between two). <input type="checkbox"/> Base ten (tens and ones). <input type="checkbox"/> A selection of leaves (evergreen and deciduous). <input type="checkbox"/> Large paper sheets (optional - eight to ten). <input type="checkbox"/> Devices with a tree identification app (optional). <input type="checkbox"/> Seed packets (cress, pepper, sunflower and morning glory). <input type="checkbox"/> Daffodil and snowdrop bulbs (a few for observation). <input type="checkbox"/> Compost (optional). <input type="checkbox"/> 6 different fruits and vegetables (e.g. carrots, lettuce, celery, peas and apples). 	<ul style="list-style-type: none"> <input type="checkbox"/> 'The Oak Tree' by Julia Donaldson. <input type="checkbox"/> 'The Gruffalo' by Julia Donaldson. <input type="checkbox"/> Wool or string in three different colours. <input type="checkbox"/> Tape measures (optional). <input type="checkbox"/> Clipboard (one for the teacher). <input type="checkbox"/> Devices with internet access (optional one between two). <input type="checkbox"/> Magnifying glasses (optional - one between two). <input type="checkbox"/> Natural materials for building small animal homes (e.g. sticks, leaves, moss and bark). <input type="checkbox"/> 1 small plastic animal figure (e.g. a mouse). <input type="checkbox"/> Pine cones (with open scales - one each). <input type="checkbox"/> 10 ripe bananas. <input type="checkbox"/> Oats, seeds and dried fruit or wild bird seed (one cup between six). <input type="checkbox"/> String. <input type="checkbox"/> Dice (optional - one between two).

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Year 2: Equipment list

<u>Habitats</u>	<u>Microhabitats</u>	<u>Uses of everyday materials</u>
<ul style="list-style-type: none"> <input type="checkbox"/> 1 device for recording video (optional). <input type="checkbox"/> Clipboards (one each). <input type="checkbox"/> Sticky tack. <input type="checkbox"/> Devices for with internet access (one between two). 	<ul style="list-style-type: none"> <input type="checkbox"/> A tray of leaf litter containing minibeasts. <input type="checkbox"/> 1 camera or device for taking photos. <input type="checkbox"/> Opaque lidded box with air holes containing leaf litter and three earthworms. <input type="checkbox"/> 1 clear, litre plastic bottle. <input type="checkbox"/> Soil (approximately a third of a litre). <input type="checkbox"/> Sand (approximately a third of a litre). <input type="checkbox"/> Leaf litter (a handful). <input type="checkbox"/> 1 trowel or large spoon. <input type="checkbox"/> 1 A3 sheet of black paper or card. <input type="checkbox"/> Sticky tape. <input type="checkbox"/> Bug pots with lids (one between two). <input type="checkbox"/> Medium-sized paintbrushes (one between two). <input type="checkbox"/> Magnifying glasses (one between two). <input type="checkbox"/> Clipboards (one each). <input type="checkbox"/> Lidded box with air holes containing leaf litter and 25 woodlice. <input type="checkbox"/> Petri dishes (one between six). <input type="checkbox"/> Stopwatches (one between two). <input type="checkbox"/> Paper towels. 	<ul style="list-style-type: none"> <input type="checkbox"/> 'The Smartest Giant in Town' by Julia Donaldson. <input type="checkbox"/> 2 PE hoops. <input type="checkbox"/> A selection of everyday objects made from wood, metal, glass, plastic and fabric (e.g. bottle, chopping board, plant pot and bag). <input type="checkbox"/> High visibility jacket, hard hat and clipboard (optional - one for the teacher). <input type="checkbox"/> Modelling dough (one small ball each). <input type="checkbox"/> 1 camera or device for taking photos. <input type="checkbox"/> A selection of everyday object to test (e.g. rubber bands, paper clips, rubbers and sponges). <input type="checkbox"/> 1 small dog figurine (optional). <input type="checkbox"/> 1 tray containing mud (optional). <input type="checkbox"/> 30 strips of material for testing strength (e.g. rubber bands, wool, balloons and cotton). <input type="checkbox"/> Connecting cubes (approximately ten each). <input type="checkbox"/> Thick books (e.g. dictionaries, atlases or thesauruses - six between two).

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Year 2: Equipment list

<u>Life cycles and health</u>	<u>Plant growth</u>	<u>Plant-based materials</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Connecting cubes. <input type="checkbox"/> Split pins (one each). <input type="checkbox"/> Sticky tack (small ball between two). <input type="checkbox"/> Tape measures (one between five) <input type="checkbox"/> Volunteers from each year group for the children to measure height. <input type="checkbox"/> Toothbrush and soap (to show the children). <input type="checkbox"/> Glitter or a UV pen (one for the teacher). <input type="checkbox"/> Cleaning wipes. <input type="checkbox"/> Stopwatch (one for the teacher). <input type="checkbox"/> 1 shopping bag. <input type="checkbox"/> A selection of foods from each food group (e.g. potatoes, pasta, bread, lentils, cooked meat, butter, grapes, tomatoes and cheese). 	<ul style="list-style-type: none"> <input type="checkbox"/> Small transparent cups or plant pots (one each). <input type="checkbox"/> Sweet pea seeds (one each). <input type="checkbox"/> 1 bag of compost. <input type="checkbox"/> Plastic pipettes (one per table). <input type="checkbox"/> Spoons (one per table). <input type="checkbox"/> Daffodil bulbs (one half between two). <input type="checkbox"/> Magnifying glasses (one between two). <input type="checkbox"/> Edible seeds (e.g. sunflower or pumpkin). <input type="checkbox"/> Base ten (optional). <input type="checkbox"/> 3 tea towels. <input type="checkbox"/> Access to an outdoor space with plants (optional). <input type="checkbox"/> Chalk (one between five). <input type="checkbox"/> Cones (approximately 12). 	<ul style="list-style-type: none"> <input type="checkbox"/> Materials for sorting (bottle tops, yoghurt pots, egg cartons, socks, t-shirts and plastic bottles - one of each per table). <input type="checkbox"/> Natural materials (e.g. wool, cotton, wooden toys, rubber balloons and clay pots). <input type="checkbox"/> Human-made materials (e.g. polyester clothing, plastic bottles, nylon rope and acrylic paint). <input type="checkbox"/> Materials to testing (newspaper, card, bubble wrap, natural fabric, tin foil and hard plastic - one small piece of each between four). <input type="checkbox"/> Measuring cylinders or pipettes (one between four). <input type="checkbox"/> Materials to make pots (newspaper, bubble wrap, tin foil, fabric - one A3 sized example of each between four). <input type="checkbox"/> Cylindrical objects (e.g. pencil pots - one between four). <input type="checkbox"/> 1 bag of compost. <input type="checkbox"/> A3 sheets of newspaper (one each). <input type="checkbox"/> Spoons (one between four). <input type="checkbox"/> Sunflower seeds (one each). <input type="checkbox"/> 1 camera or device for taking photos.

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Year 3: Equipment list

<u>Movement and nutrition</u>	<u>Forces and magnets</u>	<u>Rocks and soil</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Hole punches or sharp pencils and modelling dough (one per table). <input type="checkbox"/> Split pins (eight each). <input type="checkbox"/> Sticky notes. <input type="checkbox"/> Large piece of backing paper (optional). <input type="checkbox"/> Dice (one between three). <input type="checkbox"/> A4 card (one between two). <input type="checkbox"/> String. <input type="checkbox"/> Straws (approximately 75). <input type="checkbox"/> Sticky tape. <input type="checkbox"/> Food packaging (e.g. crisp packets, empty boxes of biscuits and juice cartons). <input type="checkbox"/> Paper plates or circles drawn on A4 paper (one each). 	<ul style="list-style-type: none"> <input type="checkbox"/> Modelling dough (one ball for the teacher). <input type="checkbox"/> Sticky tack. <input type="checkbox"/> Table tennis or small balls (one between two). <input type="checkbox"/> Paper cups (one between two). <input type="checkbox"/> String. <input type="checkbox"/> Sticky tape. <input type="checkbox"/> Envelopes (one each). <input type="checkbox"/> Large space with a shiny floor (e.g. school hall). <input type="checkbox"/> 10 m tape measure (one for the teacher). <input type="checkbox"/> Sticky notes (yellow and blue). <input type="checkbox"/> Plastic bottle caps (one plain and one with sandpaper on the bottom between three). <input type="checkbox"/> Toy cars (one between three). <input type="checkbox"/> Ramps (one between three). <input type="checkbox"/> Props for ramps (one between three). <input type="checkbox"/> Meter rulers (one between three). <input type="checkbox"/> Various materials to put on ramps to investigate friction (e.g. foil, cardboard, bubble wrap, sandpaper, tea towel). <input type="checkbox"/> Bar magnets (one each). <input type="checkbox"/> Devices to take photographs (one between two). <input type="checkbox"/> Sandwich bags of magnetic and non-magnetic materials (e.g. coins, keys, bolts, aluminium foil, copper wire and marbles - one between two). <input type="checkbox"/> Highlighters (one between three). 	<ul style="list-style-type: none"> <input type="checkbox"/> A class set of rock samples. <input type="checkbox"/> Magnifying glasses (one between three). <input type="checkbox"/> 1 sample of pumice and chalk. <input type="checkbox"/> 1 hammer. <input type="checkbox"/> 1 transparent bowl. <input type="checkbox"/> Nails (one between three). <input type="checkbox"/> Droppers (two between three). <input type="checkbox"/> White vinegar. <input type="checkbox"/> Devices for video recording (one between three). <input type="checkbox"/> Fossil modelling equipment (e.g. bread, modelling clay, plastic dinosaurs, dinosaur sweets, small plastic bones, craft glue and sand). <input type="checkbox"/> Rock samples with fossils (optional). <input type="checkbox"/> Books (a small pile between three). <input type="checkbox"/> 3 different cereals. <input type="checkbox"/> Animal-shaped gummy sweets. <input type="checkbox"/> 1 pestle and mortar. <input type="checkbox"/> Class soil samples of clay, sandy, peaty and loam. <input type="checkbox"/> Coffee filters (one each). <input type="checkbox"/> Plastic cups (one each). <input type="checkbox"/> Plastic trays (one between four). <input type="checkbox"/> Large glass jars with lids (one between two).

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Year 3: Equipment list

<u>Light and shadows</u>	<u>Plant reproduction</u>	<u>Does hand span affect grip strength?</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Interesting light source (e.g. glow sticks, light wand or fibre optic light). <input type="checkbox"/> Black bags with random items (one per table). <input type="checkbox"/> 4 transparent bags containing UV reactive beads or stickers (one covered in tissue paper, one in thick fabric and one in sunscreen). <input type="checkbox"/> Mirrors (one between two). <input type="checkbox"/> Devices with a light meter app (or data loggers/light meters). <input type="checkbox"/> Reflective surfaces (e.g. trays of dyed black water, flexible sheet mirror, tin foil, metal spoons and metallic pots). <input type="checkbox"/> Torches (one between two). <input type="checkbox"/> A variety of opaque, transparent and translucent materials (e.g. denim, felt, coloured acetate, tissue paper, clear acetate and cling film). <input type="checkbox"/> Sticky notes. <input type="checkbox"/> Animal figures (selection per table). <input type="checkbox"/> Connecting cubes. <input type="checkbox"/> Upright object, chalk and metre ruler (to measure shadows outdoors). <input type="checkbox"/> Modelling dough (small ball between two). <input type="checkbox"/> Lolly sticks (one between two). <input type="checkbox"/> Opaque black paper or card. <input type="checkbox"/> Straws (approximately two each). <input type="checkbox"/> Bulldog clips (optional - one each). <input type="checkbox"/> Sticky tape. <input type="checkbox"/> Cardboard or cardboard packaging. <input type="checkbox"/> 1 shadow puppet theatre with a large sheet of white fabric and lamp or torch. 	<ul style="list-style-type: none"> <input type="checkbox"/> 2 of the same plants (bean plants or geraniums). <input type="checkbox"/> Clear plastic bags and twist ties (enough to cover the leaves of one of the plants). <input type="checkbox"/> Flowering plant examples (one per table). <input type="checkbox"/> 3 geranium plants. <input type="checkbox"/> Measuring cylinders (one per table). <input type="checkbox"/> Food colouring. <input type="checkbox"/> Kitchen paper. <input type="checkbox"/> Beakers or glasses (one between two). <input type="checkbox"/> 2 Chrysanthemum flower stems (preferably white). <input type="checkbox"/> Sticks of celery (one between two). <input type="checkbox"/> Magnifying glasses (one per table). <input type="checkbox"/> Table knives (one per table). <input type="checkbox"/> Spoons (one per table). <input type="checkbox"/> Cress seeds (between 20 to 40). <input type="checkbox"/> 2 cotton wool pads. <input type="checkbox"/> 2 petri dishes or small dishes. <input type="checkbox"/> 1 opaque mystery box with items related to flowers (e.g. honey, a floral scent, seeds and fruit). <input type="checkbox"/> Lilies (one flower per table). <input type="checkbox"/> 6 different fruits, (e.g. kiwi, oranges, apples, seedless grapes, avocado and pepper - three of each). <input type="checkbox"/> Junk modelling materials (e.g. thin and corrugated card, plastic bottles, tissue paper, coloured paper and bubble wrap). <input type="checkbox"/> Masking tape. <input type="checkbox"/> 1 camera or device for taking photos. 	<ul style="list-style-type: none"> <input type="checkbox"/> Sticky notes (approximately one pad). <input type="checkbox"/> Metre rulers. <input type="checkbox"/> Pegs (one each). <input type="checkbox"/> 1 cm square paper (optional). <input type="checkbox"/> String. <input type="checkbox"/> Metre rulers (one between three). <input type="checkbox"/> 6 different-sized fruits (e.g. grape, apple, orange, grapefruit, cantaloupe, watermelon - three class sets). <input type="checkbox"/> 1 calculator. <input type="checkbox"/> Materials (tin foil, paper, bubble wrap, wood and glass - one sample between three). <input type="checkbox"/> Different types of gloves rubber, wool, leather, medical, gardening and oven gloves). <input type="checkbox"/> Sticky tape. <input type="checkbox"/> Split pins (two each). <input type="checkbox"/> Sharp pencils and modelling dough (to pierce holes - one between four). <input type="checkbox"/> Skewers (four each). <input type="checkbox"/> Calculator (one for the teacher). <input type="checkbox"/> The shadow puppet theatre (see Science, Year 3, Light and shadows: Lesson 6: Using light and shadows.)

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Year 4- Equipment list

<u>Digestion and food</u>	<u>Electricity and circuits</u>	<u>States of matter</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Bread. <input type="checkbox"/> Potato masher. <input type="checkbox"/> Two large bowls/containers. <input type="checkbox"/> Jugs/bottles. <input type="checkbox"/> Fruit juice. <input type="checkbox"/> Funnel (and tubing, if available). <input type="checkbox"/> Resealable freezer bag. <input type="checkbox"/> A pair of tights. <input type="checkbox"/> A sponge. <input type="checkbox"/> A tray or waterproof sheet. <input type="checkbox"/> Modelling dough. <input type="checkbox"/> Mirrors. <input type="checkbox"/> Empty eggshells or whole eggs. <input type="checkbox"/> Liquids in cups (juice, cola, coffee, vinegar, water - enough to immerse the shell). <input type="checkbox"/> Soft, medium and hard toothbrushes, preferably of the same brand/size. <input type="checkbox"/> Toothpaste. <input type="checkbox"/> Timers/stopwatches. <input type="checkbox"/> Hand lenses. <input type="checkbox"/> Whistle. <input type="checkbox"/> Plastic hoops. <input type="checkbox"/> Tennis balls or beanbags. <input type="checkbox"/> Bibs. <input type="checkbox"/> Tag rugby bands. <input type="checkbox"/> Homemade poo samples (optional- see <i>Lesson 6</i> for ingredients list). 	<ul style="list-style-type: none"> <input type="checkbox"/> Cups for the whole class. <input type="checkbox"/> Two bowls. <input type="checkbox"/> 30 wrapped sweets or counting cubes. <input type="checkbox"/> An opaque bag or pillowcase. <input type="checkbox"/> Circuit kits (including: batteries, wires with and without clips, switches, three bulbs, a buzzer). <input type="checkbox"/> Optional: ammeters. <input type="checkbox"/> Bare, bendable wire. <input type="checkbox"/> Paper clips. <input type="checkbox"/> Electrical tape. <input type="checkbox"/> Modelling dough or sticky tack. <input type="checkbox"/> Range of materials (such as: metal and plastic spoons, foil, wool, metal nails). <input type="checkbox"/> Devices with internet access (optional), 	<ul style="list-style-type: none"> <input type="checkbox"/> A selection of materials, including solids, liquids and gases. <input type="checkbox"/> A large syringe (end sealed) or empty plastic bottle with lid. <input type="checkbox"/> Sealed syringes containing a coloured liquid. <input type="checkbox"/> Blue food colouring. <input type="checkbox"/> Silicone animal shapes ice cube mould (optional). <input type="checkbox"/> Reusable ice cubes (or normal ice cubes). <input type="checkbox"/> Plastic trays. <input type="checkbox"/> Plastic cups. <input type="checkbox"/> Jars with metal lids. <input type="checkbox"/> Foil cake cases. <input type="checkbox"/> Access to water. <input type="checkbox"/> Tongs or spoons. <input type="checkbox"/> Thermometers. <input type="checkbox"/> A kettle. <input type="checkbox"/> Mirrors. <input type="checkbox"/> Stopwatches. <input type="checkbox"/> An online stopwatch. <input type="checkbox"/> PE hoops. <input type="checkbox"/> A large, plastic box (optional). <input type="checkbox"/> Sticky notes. <input type="checkbox"/> Whiteboards and pens. <input type="checkbox"/> Tablets. <input type="checkbox"/> A spacious area, e.g. playground or sports hall.

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Year 4- Equipment list

<u>Sound and vibrations</u>	<u>Classification and changing habitats</u>	<u>How does the flow of liquids compare?</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Whiteboards and pens. <input type="checkbox"/> Tuning forks. <input type="checkbox"/> Plastic trays. <input type="checkbox"/> Rice. <input type="checkbox"/> Inflexible plastic rulers. <input type="checkbox"/> Rubber bands. <input type="checkbox"/> A mixing bowl. <input type="checkbox"/> Tablets (or data loggers). <input type="checkbox"/> Musical instruments. <input type="checkbox"/> Paper cups. <input type="checkbox"/> String. <input type="checkbox"/> Metal coat hangers. <input type="checkbox"/> A skipping rope. <input type="checkbox"/> 15 m tape measures. <input type="checkbox"/> Metal pan, jar or bottle lids. <input type="checkbox"/> Plastic containers. <input type="checkbox"/> Glass bottles. <input type="checkbox"/> Test materials (insulators and conductors of sound). <input type="checkbox"/> Access to water. <input type="checkbox"/> An outside space. 	<ul style="list-style-type: none"> <input type="checkbox"/> Whiteboards and pens. <input type="checkbox"/> Flipchart. <input type="checkbox"/> A1 paper. <input type="checkbox"/> Green and blue coloured pencils. <input type="checkbox"/> Sticky notes. <input type="checkbox"/> Sticky tack. <input type="checkbox"/> Straws. <input type="checkbox"/> Chalk. <input type="checkbox"/> Stapler. <input type="checkbox"/> PE hoops. <input type="checkbox"/> A pair of binoculars. <input type="checkbox"/> Tablets or devices with internet access and camera capabilities. <input type="checkbox"/> Access to a hall or outside space <input type="checkbox"/> Access to trees. 	<ul style="list-style-type: none"> <input type="checkbox"/> Examples of solids (e.g. a rubber, a marble, a metal pencil sharpener, etc.). <input type="checkbox"/> Examples of liquids in plastic cups (water, milk, vinegar, vegetable oil, cream, maple syrup, honey, double cream and washing-up liquid). <input type="checkbox"/> An example of a gas (a balloon labelled as 'air'). <input type="checkbox"/> Plastic or paper bowl filled with water. <input type="checkbox"/> Plastic toy animals. <input type="checkbox"/> Sunflower oil mixed with black food colouring. <input type="checkbox"/> Cleaning materials (sponges, paper towels, cotton wool, washing up liquid, droppers or spoons). <input type="checkbox"/> Food colouring. <input type="checkbox"/> Plastic trays. <input type="checkbox"/> Yellow sticky notes. <input type="checkbox"/> Highlighters. <input type="checkbox"/> Permanent marker. <input type="checkbox"/> Plastic pipette droppers. <input type="checkbox"/> Paper towels. <input type="checkbox"/> Poster paper. <input type="checkbox"/> A flipchart. <input type="checkbox"/> Books. <input type="checkbox"/> Stopwatches. <input type="checkbox"/> An online timer. <input type="checkbox"/> Calculators. <input type="checkbox"/> A device that can record slow-motion video.

This list does not include equipment usually available in the classroom (e.g. scissors, rulers, plain paper, whiteboards, etc.).
See the Have ready section of each lesson for the complete equipment list, including amounts.

Year 5 - Equipment list

<u>Mixtures and separation</u>	<u>Properties and changes</u>	<u>Earth and space</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Substances (salt, sugar, pepper, sand, soil, flour). <input type="checkbox"/> Materials (e.g. coffee filters, pasta, rice, cotton wool, paper towel, pebbles, gravel, face masks, charcoal). <input type="checkbox"/> Plastic gold nuggets. <input type="checkbox"/> Extra chunky gold glitter. <input type="checkbox"/> Metal paper clips. <input type="checkbox"/> Iron filings. <input type="checkbox"/> Magnet. <input type="checkbox"/> 2 litre plastic bottle. <input type="checkbox"/> Small plastic bottles. <input type="checkbox"/> Gauzes. <input type="checkbox"/> Stopwatches. <input type="checkbox"/> Thermometers. <input type="checkbox"/> Teabags. <input type="checkbox"/> Food colouring. <input type="checkbox"/> Skittles® or chocolate mini eggs. <input type="checkbox"/> Sugar cubes. <input type="checkbox"/> Large jugs. <input type="checkbox"/> Large mixing bowl. <input type="checkbox"/> Large plastic tray. <input type="checkbox"/> Tea towels. <input type="checkbox"/> Recycled lids. <input type="checkbox"/> Colanders. <input type="checkbox"/> Sieves. <input type="checkbox"/> Plastic and paper cups. <input type="checkbox"/> Paper straws. <input type="checkbox"/> Plastic spoons. <input type="checkbox"/> Paper plates. <input type="checkbox"/> PE hoops. <input type="checkbox"/> Pompoms <input type="checkbox"/> Computers/tablets. 	<ul style="list-style-type: none"> <input type="checkbox"/> Materials to test and sort according to hardness. <input type="checkbox"/> Materials to test and sort according to transparency. <input type="checkbox"/> Materials to test according to thermal conductivity. <input type="checkbox"/> Materials to melt. <input type="checkbox"/> Materials to burn. <input type="checkbox"/> Light meter app, data loggers or light meters. <input type="checkbox"/> Magnifying glasses. <input type="checkbox"/> Thermometers. <input type="checkbox"/> Timers or stopwatches. <input type="checkbox"/> Permanent markers. <input type="checkbox"/> Sticky tape. <input type="checkbox"/> Tealights. <input type="checkbox"/> Candle lighters or long matches. <input type="checkbox"/> Heat mat or foil trays of sand. <input type="checkbox"/> Foil cupcake cases. <input type="checkbox"/> Tongs. <input type="checkbox"/> Metal spoon. <input type="checkbox"/> A steel wool scouring pad. <input type="checkbox"/> Vinegar. <input type="checkbox"/> Bicarbonate of soda. <input type="checkbox"/> Tablets. <input type="checkbox"/> Plastic cups. <input type="checkbox"/> Plastic bottles. <input type="checkbox"/> Plastic trays. <input type="checkbox"/> A jar of water with lid. <input type="checkbox"/> A bucket of water. <input type="checkbox"/> Safety goggles. <input type="checkbox"/> Balloons. <input type="checkbox"/> String. <input type="checkbox"/> Nails. <input type="checkbox"/> Paper clips. <input type="checkbox"/> Petroleum jelly. 	<ul style="list-style-type: none"> <input type="checkbox"/> Whiteboards and pens. <input type="checkbox"/> Devices for online research. <input type="checkbox"/> A large area, such as a hall or playground. <input type="checkbox"/> Fruit. <input type="checkbox"/> A yoga ball. <input type="checkbox"/> Balloons. <input type="checkbox"/> Modelling clay. <input type="checkbox"/> 15 m tape measures. <input type="checkbox"/> Polystyrene balls. <input type="checkbox"/> Toothpicks. <input type="checkbox"/> Torches. <input type="checkbox"/> Permanent markers. <input type="checkbox"/> Compasses. <input type="checkbox"/> Sticky notes. <p>Equipment to make sundials:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sundial faces (e.g. paper plate, whiteboard, plastic tray containing sand or PE hoop). <input type="checkbox"/> Sundial gnomons (e.g. straw, modelling clay, pen, stick or twig). <input type="checkbox"/> Sticky tape or glue. <input type="checkbox"/> Numbers representations (e.g. chalk, pens, sticky notes, string, pebbles or shells). <input type="checkbox"/> Online timer.
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Year 5 - Equipment list

<u>Life cycles and reproduction</u>	<u>Unbalanced forces</u>	<u>Human timeline</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Fresh mint plants. <input type="checkbox"/> Three different types of flower. <input type="checkbox"/> Sticky notes. <input type="checkbox"/> Calculators. <input type="checkbox"/> 30 cm rulers. <input type="checkbox"/> Paper towels. <input type="checkbox"/> A selection of pencils (including red pencils). <input type="checkbox"/> Chalk. <input type="checkbox"/> Whiteboards and pens. <input type="checkbox"/> A die. <input type="checkbox"/> Magnifying glasses. <input type="checkbox"/> Plastic water bottle. <input type="checkbox"/> Access to water. <input type="checkbox"/> A sensitive scale. <input type="checkbox"/> Online timer. <input type="checkbox"/> Tablets. <input type="checkbox"/> A large space (e.g. a playground, field or hall). <input type="checkbox"/> Equipment to represent nests (e.g. school jumpers, cardboard, PE hoops). <input type="checkbox"/> Equipment to represent eggs (e.g. balls, balloons, pencil cases). <input type="checkbox"/> Equipment to represent food (e.g. short lengths of string, pencils, plastic insect toys or sweets). 	<ul style="list-style-type: none"> <input type="checkbox"/> A large outside space (e.g. playground). <input type="checkbox"/> A large, open space with a smooth floor, such as a sports hall. <input type="checkbox"/> Marshmallows. <input type="checkbox"/> Chalk. <input type="checkbox"/> Highlighters. <input type="checkbox"/> Masking tape. <input type="checkbox"/> Whiteboards and pens (one each). <input type="checkbox"/> Elastic bands. <input type="checkbox"/> Paper clips. <input type="checkbox"/> A hot glue gun (for the teacher's use only). <input type="checkbox"/> Balloons. <input type="checkbox"/> Lolly sticks. <input type="checkbox"/> String. <input type="checkbox"/> Modelling dough. <input type="checkbox"/> Large, sturdy paper cups. <input type="checkbox"/> Smaller, light paper cups. <input type="checkbox"/> 2 litre plastic bottles. <input type="checkbox"/> Empty plastic food containers. <input type="checkbox"/> Plastic trays. <input type="checkbox"/> Straws. <input type="checkbox"/> Wooden skewers. <input type="checkbox"/> Three different-sized coffee filters.. <input type="checkbox"/> Small balls (e.g. table tennis). <input type="checkbox"/> A hammer. <input type="checkbox"/> A floaty feather. <input type="checkbox"/> Rulers. <input type="checkbox"/> 1 metre rulers. <input type="checkbox"/> Tape measures (15 m) <input type="checkbox"/> Stopwatches. <input type="checkbox"/> Calculators. <input type="checkbox"/> Online timer. <input type="checkbox"/> Device with internet access. <input type="checkbox"/> Device for taking photographs. 	<ul style="list-style-type: none"> <input type="checkbox"/> Metre ruler. <input type="checkbox"/> Rulers, ideally transparent/translucent. <input type="checkbox"/> A childhood photo of a well-known adult in the school (optional). <input type="checkbox"/> Photos of the class as babies or younger children (optional). <input type="checkbox"/> Sticky notes. <input type="checkbox"/> Graph paper (optional). <input type="checkbox"/> Devices with internet access (optional). <div style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><u>Does the size of an asteroid affect its impact strength?</u></p> </div> <ul style="list-style-type: none"> <input type="checkbox"/> Model asteroids made from ice, basalt/granite and aluminium foil. <input type="checkbox"/> Modelling dough. <input type="checkbox"/> Sand. <input type="checkbox"/> Trays. <input type="checkbox"/> Metre rulers. <input type="checkbox"/> 15-30 cm rulers. <input type="checkbox"/> A digital scales. <input type="checkbox"/> Magnifying glasses. <input type="checkbox"/> A device that can record video. <input type="checkbox"/> An airtight container.

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Year 6 - Equipment list

<u>Classifying big and small</u>	<u>Light and reflection</u>	<u>Evolution and inheritance</u>
<ul style="list-style-type: none"> <input type="checkbox"/> Magnifying glasses. <input type="checkbox"/> Clay or playdough. <input type="checkbox"/> Jars or plastic cups. <input type="checkbox"/> Craft materials. 	<ul style="list-style-type: none"> <input type="checkbox"/> Cardboard tubes. <input type="checkbox"/> Small objects, such as coins or dice. <input type="checkbox"/> Short lengths of hose or opaque tubing. <input type="checkbox"/> Torches (preferably with a single bulb). <input type="checkbox"/> A6-size card with holes pierced through. <input type="checkbox"/> Bulldog clips (optional). <input type="checkbox"/> Mini whiteboards. <input type="checkbox"/> 30 cm rulers. <input type="checkbox"/> Mirrors. <input type="checkbox"/> String or ribbon. <input type="checkbox"/> Toys with eyes, such as teddy bears or dolls. <input type="checkbox"/> Plain glass filled with water (optional). <input type="checkbox"/> Arrow drawn on paper in marker pen (optional). <input type="checkbox"/> Coloured acetate (or cut up coloured translucent folders). <input type="checkbox"/> Football or other simple-shaped object. <input type="checkbox"/> Opaque black card or paper. <input type="checkbox"/> Lolly sticks. <input type="checkbox"/> Modelling clay. <input type="checkbox"/> Assorted shaped objects. <input type="checkbox"/> Protractors. <input type="checkbox"/> Large plastic bottle filled with water (optional). <input type="checkbox"/> Something to pierce a hole in the bottle (optional). <input type="checkbox"/> Laser pointer (optional). <input type="checkbox"/> Bucket or container to catch the stream of water (optional). <input type="checkbox"/> Fibre optic light (optional). <input type="checkbox"/> Glue dots or double-sided tape. <input type="checkbox"/> Cuboid cardboard packaging (Adaptive teaching). <input type="checkbox"/> Screens to divide the classroom (optional). 	<ul style="list-style-type: none"> <input type="checkbox"/> Sticky notes (including green ones). <input type="checkbox"/> Dice. <input type="checkbox"/> Trays. <input type="checkbox"/> Shallow containers or dishes (such as petri dishes). <input type="checkbox"/> Differently-sized or shaped tweezers. <input type="checkbox"/> Stopwatches. <input type="checkbox"/> Dried rice. <input type="checkbox"/> Different dried foods such as pasta, lentils or cake sprinkles (optional).

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Year 6 - Equipment list

Circuits, batteries and switches

- A range of batteries (including different sizes of 1.5 V button cell batteries, 3V button cell batteries, AAA, AA, C, D, 9V and a camera battery).
- Cups for the whole class.
- Two bowls.
- 30 wrapped sweets or counting cubes.
- Chalk (optional).
- Sticky tack.
- Rulers.
- Circuit kits (including: 4 cells/batteries, 5 wires with and without clips, switches, 5 bulbs, a buzzer).
- Ammeters (one for the teacher; optional for the class).
- Motors (teacher demonstration).
- Whiteboards and pens.
- Dice.
- Tricky circuit building kit (optional - 9V battery, paper, LED, 6B or 8B graphite pencil, copper tape or foil, a paper clip).
- A camera for recording (optional).
- Large space such as a playground or hall.
- Large hoops.
- Calculators.
- Devices with internet access.
- Short lengths of cardboard tube.
- Data loggers or light meters to record light intensity/brightness in lux (apps on devices would also work).
- One data logger or decibel meter to measure volume, or decibel app on a device (teacher demonstration).
- Equipment for practical circuit building to be shared (tin foil, sticky tape, double-sided tape, paper clips, sharp pencils and modelling dough).
- Equipment for building a greetings card (A4 white card, colouring pencils or pens, 2 cells, a buzzer or bulb/LED, wires, optional copper tape, a switch).
- Equipment for building a burglar alarm (thick card from a box, tin foil, cells, a buzzer and a bulb, wires).
- Equipment for building a dog's push button (sponge, split pins, thin cardboard, cells, wires, a buzzer and a bulb).
- Equipment for building a water butt alarm (milk bottle lids, a jar or small bucket, tin foil, lolly sticks or similar, modelling dough or sticky tack, cells, wires, a buzzer and a bulb).

Circulation and health

- Lab coat and stethoscope (optional).
- Whiteboards and pens.
- Counters and dice for a board game (optional).
- Modelling the circulatory system (2 large red hoops; 2 large blue hoops; 1 large hoop of another colour; chalk for drawing on the ground; 5 bowls or containers; at least 30 red beanbags, balls or pieces of card; at least 30 blue beanbags, balls or pieces of card; at least 20 beanbags, balls or pieces of card in green and yellow).
- Modelling blood (small, transparent bottle or tube with a lid; cooking oil to fill container halfway; red liquid food colouring; white mini marshmallows or beads; small chopped up pieces of light-coloured paper; teaspoons of sugar and salt; some water; mixture of small beads or cake sprinkles).
- Sticky notes.
- Devices for internet research.
- Calculators (optional).
- Sticky tack.
- Pulsometers, data loggers or smart watches for measuring heart rate (optional).
- Stop watches.
- Graph paper (optional).
- Rulers.

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Are some sunglasses safer than others?

- Sticky notes.
- A range of 5-10 sunglasses labelled with different letters, preferably with differently shaded and coloured lenses.
- Components to make an electrical circuit with a bulb.
- Data loggers, light meters or devices with an app to record light intensity/brightness in lux.
- Short cardboard tubes (optional).
- A3 paper.
- Stopwatches.
- Graph paper.
- Rulers.
- UV reactive beads or stickers.
- UV torch (optional).
- Access to direct sunlight.
- Trays for equipment.
- Devices to take photographs and record.

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