



**Equipment list** 

© Copyright Kapow Primary 2022 www.kapowprimary.com

# Content

Year 1	3
Year 2	4
Year 3	5
Year 4	6
Year 5	6
Year 6	7

Some of the items on our science equipment list can now be accessed and used through mobile apps on devices, offering an alternative to traditional methods of data collection (e.g. thermometers, stopwatches, etc).

© Copyright Kapow Primary 2022 www.kapowprimary.com

#### Year 1 - Equipment list

Seasonal changes	Everyday materials	Sensitive bodies
<ul> <li>Small tree branches.</li> <li>String.</li> <li>Masking tape.</li> <li>Camera or tablets for recording.</li> <li>A doll/puppet/teddy bear.</li> <li>Containers (preferably transparent).</li> <li>A selection of different thermometers (e.g digital, traditional glass, forehead strips).</li> <li>Sun lotion and sunglasses (optional).</li> </ul>	<ul> <li>Materials box (containing items made from a range of materials, e.g. wood, plastic, glass, metal, fabrics).</li> <li>Hoops for sorting.</li> <li>Cameras.</li> <li>Sticky notes (pink and green).</li> <li>A tea towel.</li> <li>Selection of textured materials (e.g. corrugated cardboard, foil, bubble wrap, tissue paper, feathers, wool, cotton wool, small pom-poms and glitter.)</li> <li>Shallow trays (per group of six)</li> <li>Teaspoon, 5 ml measuring spoon or 5 ml syringe.</li> <li>Pre-cut material squares from absorbent and non-absorbent materials (e.g. cotton wool, paper towel, fabric, felt, plastic bag, foil, cotton wool).</li> <li>Selection of clothing.</li> <li>Plastic cups/yoghurt pots.</li> <li>Elastic bands.</li> <li>Paper towels.</li> <li>Sticky tack.</li> <li>Materials for testing toughness (e.g. plastic, denim, rubber, silicone, hessian, cotton wool, cardboard, felt, crayon).</li> </ul>	<ul> <li>Roll of large drawing paper.</li> <li>Small bag of popcorn.</li> <li>Blindfolds (e.g. scarves or tea towels).</li> <li>Connecting cubes.</li> <li>Everyday objects for a feeling challenge (e.g. feather, seashell, potato).</li> <li>Food samples for a taste test (e.g. lemon, chocolate).</li> <li>Disposable gloves for the teacher.</li> <li>Aromatic items for a smelling test (e.g. coffee, banana, garlic).</li> <li>Opaque containers with covers.</li> <li>Clipboards.</li> <li>Rubber floor markers.</li> <li>Percussion instrument (e.g. egg shaker).</li> <li>Items for a listening challenge (e.g. rice, marbles, leaves).</li> </ul>

I his information can be found in the *Have ready* section of each lesson.

#### Year 1 - Equipment list

	Comparing animals	Introduction to plants	Investigating science through stories			
000000000	Sorting rings. Cameras. Craft materials (e.g. feathers, fur, foil). Sticky notes. 'Dear Zoo' storybook by Rod Campbell. Connecting cubes. Toilet rolls for making binoculars. Sticky labels. Clipboards. Green fabric (optional). Chimpanzee toys (optional).	Transparent plastic cups. Paper towels. Beans (for planting). Sticky labels. Sticky notes. Small watering can (optional). Magnifying glasses. Access to outdoor plants including trees. A selection of flowering plants (with their roots, stems, leaves and flowers in tact). A camera. Bean bags. Clipboards. A selection of wild and/or garden flowers (optional). Sorting hoops. Carrier bags. Base ten (tens and ones). A selection of leaves. Large paper sheets. Seed packets (cress, pepper, sunflower, morning glory). Daffodil bulbs. Snowdrop bulbs. A selection of fruit and vegetables.	000000000000	The Oak Tree storybook by Julia Donaldson. The Gruffalo storybook by Julia Donaldson. Coloured wool/string. Tape measures (optional). Rulers. Magnifying glasses. Natural materials for building small animal homes (e.g. sticks, leaves, moss). A small plastic animal figure, e.g. a mouse. Owl babies storybook by Martin Waddell. Pine cones (with open scales - one each). Ten ripe bananas. Oats, seeds and dried fruit/wild bird seed mix. String. Dice.		

© Copyright Kapow Primary 2022 Science equipment list www.kapowprimary.com

#### Year 2 - Equipment list

<u>Habitats</u>	<u>Microhabitats</u>	Uses of everyday materials
Clipboards. Devices for online research.	A tray of leaf litter containing minibeasts.  A lidded box with air holes containing leaf litter and three earthworms.  A lidded box with air holes containing leaf litter and 25 woodlice.  An empty 1 litre clear plastic bottle.  Soil (about a third of a litre).  Sand (about a third of a litre).  A trowel/large spoon.  Bug pots with lids.  Medium-sized paintbrushes.  Magnifying glasses.  Clipboards.  Petri dishes.  Stopwatches.  Cameras.	A selection of everyday objects.  Sticky notes.  Sorting hoops.  'The Smartest Giant in Town' story by Julia Donaldson.  High visibility jacket and hard hat (optional).  Modelling dough (A ball of dough per child).  A small dog figurine (optional).  A tray containing mud made from soil and water (optional).  30 strips of material for testing strength.  Connecting cubes.  Large pile of thick books (e.g. dictionaries, atlases or thesauruses).

#### Year 2 - Equipment list

<u>Life cycles and health</u>	Plant growth	Plant-based materials
Connecting cubes.	Small plant pots (transparent recommended)	Materials for sorting.
Split pins.	Sweet pea seeds.	Natural materials.
Sticky tack.	Compost.	Human-made materials.
Tape measures.	Plastic pipettes.	Materials for testing (newspaper, card, bubble
Volunteers from each year group.	Spoons.	wrap, natural fabric, tin foil, hard plastic).
A camera for recording (optional).	Magnifying glasses.	Water.
A5 paper.	Access to an outdoor space with flowering plants.	Measuring cylinders.
A toothbrush.	Edible seeds (e.g. sunflower or pumpkin).	Pipettes.
Soap.	Rulers.	Cylindrical objects.
Glitter or a UV pen.	Tea towels.	Soil.
Cleaning wipes.	Grass seeds (optional).	Spoons.
A stopwatch.	Chalk.	Sunflower seeds.
A shopping bag.	Cones.	A device for taking photos (optional).
Carbohydrates (e.g, potatoes, pasta and bread).		
Proteins (e.g. lentils and cooked meat).		
Oils and spreads (e.g. butter).		
Fruits and vegetables (e.g. grapes and tomatoes).		
Dairy and dairy alternatives (e.g. cheese).		

## Year 3 - Equipment list

Movement and	<u>nutrition</u>	Forces and magnets	Rocks and soil
<ul> <li>Hole punches (or sharp possible)</li> <li>Split pins.</li> <li>Dice.</li> <li>String.</li> <li>Straws.</li> <li>Food packaging (ask puping for lessons 4 and 5).</li> <li>Calculators.</li> <li>Paper plates or circles.</li> </ul>		Sticky tape.  A ball.  Envelopes  10m tape measure.  Yellow sticky notes.  Blue sticky notes.  Toy cars.  Ramps.  Props for ramps.  Meter rulers.  Materials to put on ramp (e.g. foil, cardboard, bubble wrap, sandpaper, tea towel).  Bar magnets.  Sandwich bags of magnetic and non-magnetic materials (e.g. coins, paper clips, keys, thimbles, nuts and bolts, aluminium foil, copper wire, wooden pencils, plastic rulers, glass marbles, rubbers, paper).  Four different colouring pencils.  Highlighters.	<ul> <li>□ Rock samples.</li> <li>□ Magnifying glasses.</li> <li>□ Whiteboards and pens.</li> <li>□ Devices for online research.</li> <li>□ Pumice.</li> <li>□ Chalk.</li> <li>□ Paper towels.</li> <li>□ A hammer.</li> <li>□ A transparent bowl.</li> <li>□ Nails.</li> <li>□ Droppers.</li> <li>□ White vinegar.</li> <li>□ Fossil modelling equipment (e.g. bread, modeliclay, plastic dinosaurs, dinosaur sweets).</li> <li>□ Books.</li> <li>□ Scissors.</li> <li>□ Cereals.</li> <li>□ Animal-shaped gummy sweets.</li> <li>□ A pestle and mortar.</li> <li>□ Soil samples.</li> <li>□ Coffee filters.</li> <li>□ Plastic cups.</li> <li>□ Plastic trays.</li> <li>□ Permanent markers.</li> <li>□ Large glass jars.</li> </ul>

## Year 3 - Equipment list

	<u>Light and shadows</u>	Plant reproduction	Does hand span affect grip strength?
0 00000 0000 0000000000000	Glow sticks (or alternative interesting light source such as a light wand or fibre optic light). 30 cm rulers. Black bags with random items inside. Four transparent, sealable bags. UV-reactive beads or stickers. Variety of transparent, translucent and opaque materials, including coloured options. Mirrors. Reflective (shiny) materials. Light meter app, data loggers or light meters. Reflective surfaces (e.g. trays of dyed black water, flexible sheet mirror, metal spoons or metallic pots). Torches. Sticky notes. Whiteboards and pens. Animal figures. Connecting cubes. Plain A3 paper. Outdoor upright object. Chalk. A metre ruler. Sticky tack. Modelling dough. Lolly sticks. Opaque black paper/card. Sticky tape. Bulldog clips (optional). Cardboard packaging.	<ul> <li>□ Two of the same plant (bean plants or geraniums).</li> <li>□ Labels.</li> <li>□ Clear plastic bags.</li> <li>□ Twist ties.</li> <li>□ Flowering plant examples.</li> <li>□ Three geraniums.</li> <li>□ Measuring cylinder.</li> <li>□ Syringe.</li> <li>□ Food colouring.</li> <li>□ Kitchen paper.</li> <li>□ Two beakers.</li> <li>□ Two Chrysanthemums.</li> <li>□ A knife.</li> <li>□ Celery.</li> <li>□ Magnifying glasses.</li> <li>□ Cress seeds.</li> <li>□ Cotton wool.</li> <li>□ Petri dishes or small dishes.</li> <li>□ An opaque box.</li> <li>□ Honey.</li> <li>□ Floral scent.</li> <li>□ Seeds.</li> <li>□ Fruit.</li> <li>□ Lilies.</li> <li>□ Kiwi fruit.</li> <li>□ Oranges.</li> <li>□ Apples.</li> <li>□ Seedless grapes.</li> <li>□ Avocado.</li> <li>□ Pepper.</li> <li>□ Thin card.</li> <li>□ Corrugated card.</li> <li>□ Plastic bottles.</li> <li>□ Tissue paper.</li> </ul>	<ul> <li>□ Sticky notes.</li> <li>□ 15-30 cm rulers.</li> <li>□ Metre rulers.</li> <li>□ Scissors.</li> <li>□ Pegs.</li> <li>□ String.</li> <li>□ Sticky tape.</li> <li>□ Split pins.</li> <li>□ Modelling dough.</li> <li>□ Skewers.</li> <li>□ A calculator.</li> <li>□ Online timer.</li> <li>□ A lamp or torch.</li> <li>□ Six different-sized fruits (e.g. grape, apple, orange, grapefruit, cantaloupe, watermelon).</li> <li>□ Materials (tin foil, paper, bubble wrap, wood, glass, rubber gloves, wool gloves, leather gloves, medical gloves, gardening gloves, oven gloves).</li> <li>□ The shadow puppet theatre from Science, Year 3. Light and shadows: Lesson 6: Using light and shadows.</li> </ul>
	Straws.  One shadow puppet theatre or a large sheet of white paper/fabric.	<ul> <li>Coloured paper.</li> <li>Bubble wrap.</li> <li>Masking tape.</li> <li>A device for taking photos.</li> <li>Table knives.</li> </ul>	This list does not include equipment which is usually readily available in the classroom (e.g pencils, A4 paper, whiteboards etc.) or the quantity for every item.  This information can be found in the Have ready section of each lesson.

© Copyright Kapow Primary 2022 Science equipment list www.kapowprimary.com

#### **Year 4- Equipment list**

Digestion and food	Electricity and circuits	States of matter
<ul> <li>□ Bread.</li> <li>□ Potato masher.</li> <li>□ Two large bowls/containers.</li> <li>□ Jugs/bottles.</li> <li>□ Fruit juice.</li> <li>□ Funnel (and tubing, if available).</li> <li>□ Resealable freezer bag.</li> <li>□ A pair of tights.</li> <li>□ A sponge.</li> <li>□ A tray or waterproof sheet.</li> <li>□ Modelling dough.</li> <li>□ Mirrors.</li> <li>□ Empty eggshells or whole eggs.</li> <li>□ Liquids in cups (juice, cola, coffee, vinegar, waterenough to immerse the shell).</li> <li>□ Soft, medium and hard toothbrushes, preferably of the same brand/size.</li> <li>□ Toothpaste.</li> <li>□ Timers/stopwatches.</li> <li>□ Hand lenses.</li> <li>□ Whistle.</li> <li>□ Plastic hoops.</li> <li>□ Tennis balls or beanbags.</li> <li>□ Bibs.</li> <li>□ Tag rugby bands.</li> <li>□ Homemade poo samples (optional- see Lesson 6 for ingredients list).</li> </ul>	<ul> <li>Cups for the whole class.</li> <li>Two bowls.</li> <li>30 wrapped sweets or counting cubes.</li> <li>An opaque bag or pillowcase.</li> <li>Circuit kits (including: batteries, wires with and without clips, switches, three bulbs, a buzzer).</li> <li>Optional: ammeters.</li> <li>Bare, bendable wire.</li> <li>Paper clips.</li> <li>Electrical tape.</li> <li>Modelling dough or sticky tack.</li> <li>Range of materials (such as: metal and plastic spoons, foil, wool, metal nails).</li> <li>Devices with internet access (optional),</li> </ul>	<ul> <li>□ A selection of materials, including solids, liquids and gases.</li> <li>□ A large syringe (end sealed) or empty plastic bottle with lid.</li> <li>□ Sealed syringes containing a coloured liquid.</li> <li>□ Blue food colouring.</li> <li>□ Silicone animal shapes ice cube mould (optional).</li> <li>□ Reusable ice cubes (or normal ice cubes).</li> <li>□ Plastic trays.</li> <li>□ Plastic cups.</li> <li>□ Jars with metal lids.</li> <li>□ Foil cake cases.</li> <li>□ Access to water.</li> <li>□ Tongs or spoons.</li> <li>□ Thermometers.</li> <li>□ A kettle.</li> <li>□ Mirrors.</li> <li>□ Stopwatches.</li> <li>□ An online stopwatch.</li> <li>□ PE hoops.</li> <li>□ A large, plastic box (optional).</li> <li>□ Sticky notes.</li> <li>□ Whiteboards and pens.</li> <li>□ Tablets.</li> <li>□ A spacious area, e.g. playground or sports hall.</li> </ul>

### **Year 4- Equipment list**

Sound and vibrations	Classification and changing habitats	How does the flow of liquids compare?
<ul> <li>Whiteboards and pens.</li> <li>Tuning forks.</li> <li>Plastic trays.</li> <li>Rice.</li> <li>Inflexible plastic rulers.</li> <li>Rubber bands.</li> <li>A mixing bowl.</li> <li>Tablets (or data loggers).</li> <li>Musical instruments.</li> <li>Paper cups.</li> <li>String.</li> <li>Metal coat hangers.</li> <li>A skipping rope.</li> <li>15 m tape measures.</li> <li>Metal pan, jar or bottle lids.</li> <li>Plastic containers.</li> <li>Glass bottles.</li> <li>Test materials (insulators and conductors of sound).</li> <li>Access to water.</li> <li>An outside space.</li> </ul>	<ul> <li>□ Whiteboards and pens.</li> <li>□ Flipchart.</li> <li>□ A1 paper.</li> <li>□ Green and blue coloured pencils.</li> <li>□ Sticky notes.</li> <li>□ Straws.</li> <li>□ Chalk.</li> <li>□ Stapler.</li> <li>□ PE hoops.</li> <li>□ A pair of binoculars.</li> <li>□ Tablets or devices with internet access and camera capabilities.</li> <li>□ Access to a hall or outside space</li> <li>□ Access to trees.</li> </ul>	<ul> <li>Examples of solids (e.g. a rubber, a marble, a metal pencil sharpener, etc.).</li> <li>Examples of liquids in plastic cups (water, milk, vinegar, vegetable oil, cream, maple syrup, honey, double cream and washing-up liquid).</li> <li>An example of a gas (a balloon labelled as 'air').</li> <li>Plastic or paper bowl filled with water.</li> <li>Plastic toy animals.</li> <li>Sunflower oil mixed with black food colouring.</li> <li>Cleaning materials (sponges, paper towels, cotton wool, washing up liquid, droppers or spoons).</li> <li>Food colouring.</li> <li>Plastic trays.</li> <li>Yellow sticky notes.</li> <li>Highlighters.</li> <li>Permanent marker.</li> <li>Plastic pipette droppers.</li> <li>Paper towels.</li> <li>Poster paper.</li> <li>A flipchart.</li> <li>Books.</li> <li>Stopwatches.</li> <li>An online timer.</li> <li>Calculators.</li> <li>A device that can record slow-motion video.</li> </ul>

## Year 5 - Equipment list

	Mixtures and separation		Properties and changes		Earth and space
	Substances (salt, sugar, pepper, sand, soil, flour).  Materials (e.g. coffee filters, pasta, rice, cotton wool, paper towel, pebbles, gravel, face masks, charcoal).  Plastic gold nuggets.  Extra chunky gold glitter.  Metal paper clips.  Iron filings.  Magnet.  2 litre plastic bottle.  Small plastic bottles.  Gauzes.  Stopwatches.  Thermometers.  Teabags.	00 0 000000000	Materials to test and sort according to hardness. Materials to test and sort according to transparency. Materials to test according to thermal conductivity. Materials to melt. Materials to burn. Light meter app, data loggers or light meters. Rulers. Magnifying glasses. Thermometers. Timers or stopwatches. Permanent markers. Sticky tape. Tealights. Candle lighters or long matches.	0000000000000	Whiteboards and pens. Devices for online research. A large area, such as a hall or playground. Fruit. A yoga ball. Balloons. Modelling clay. 15 m tape measures. Polystyrene balls. Toothpicks. Torches. Permanent markers. Compasses. Sticky notes.
00000000000000	Food colouring. Skittles® or chocolate mini eggs. Sugar cubes. Large jugs. Large mixing bowl. Large plastic tray. Tea towels. Recycled lids. Colanders. Sieves. Plastic and paper cups. Paper straws. Plastic spoons. Paper plates. PE hoops. Pompoms Computers/tablets.	0000000000000000000	Heat mat or foil trays of sand. Foil cupcake cases. Tongs. Metal spoon. A steel wool scouring pad. Vinegar. Bicarbonate of soda. Tablets. Plastic cups. Plastic bottles. Plastic trays. A jar of water with lid. A bucket of water. Safety goggles. Balloons. String. Nails. Paper clips. Petroleum jelly.	Equip	ment to make sundials:  Sundial faces (e.g. paper plate, whiteboard, plastic tray containing sand or PE hoop).  Sundial gnomons (e.g. straw, modelling clay, pen, stick or twig).  Sticky tape or glue.  Numbers representations (e.g. chalk, pens, sticky notes, string, pebbles or shells).  Online timer.

© Copyright Kapow Primary 2022 Science equipment list www.kapowprimary.com

### Year 5 - Equipment list

## Year 6 - Equipment list

Classifying big and small
Magnifying glasses. Clay or playdough. Jars or plastic cups. Craft materials.  This list does not include equipment which is

## Year 6 - Equipment list

	Circuits, batteries and switches		Circulation and health
0 00000000000	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.	0000	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.
	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).	00000 000	

	Are some sunglasses safer than others?
00 00 00000000	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.