

Lower KS2 programme of Study

Year 4 Programme of study

Working Scientifically

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

Year 4 Programmes of Study (statutory Requirements)

Electricity

Pupils should be taught to:

- 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.

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Animals, including humans	Pupils should be taught to: <ul style="list-style-type: none">□ 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.
States of Matter	Pupils should be taught to: <ul style="list-style-type: none">□ 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.
Living things and their habitats	Pupils should be taught to: <ul style="list-style-type: none">□ recognise that living things can be grouped in a variety of ways□ explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment□ recognise that environments can change and that this can sometimes pose dangers to living things
Sound	Pupils should be taught to: <ul style="list-style-type: none">□ identify how sounds are made, associating some of them with something vibrating□ recognise that vibrations from sounds travel through a medium to the ear□ find patterns between the pitch of a sound and features of the object that produced it□ find patterns between the volume of a sound and the strength of the vibrations that produced it□ recognise that sounds get fainter as the distance from the sound source increases.

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