
Year 4

Units

Progression in learning

States of Matter	<ul style="list-style-type: none">• (K) Compare and group materials together, according to whether they are solids, liquids or gases• (K) 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)• (K) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.• (WS) Classify solids, liquids and gases and their properties• (WS) Make systematic and careful observations of solids, liquids and gases in action• (WS) Research melting points• (WS) Write a method making ice cream• (WS) Make systematic and careful observations over time - Alka seltzer, condensation, melting, evaporation, freezing investigations• WS) Set up comparative testing, make predictions, draw conclusions and make evaluations of melting, evaporation, condensation• (WS) Model condensation and the water cycle• (WS) Use secondary data to draw conclusions
Animals including Humans	<ul style="list-style-type: none">• (K) Describe the simple functions of the basic parts of the digestive system in humans• (K) Identify the different types of teeth in humans and their simple functions• (K) Construct and interpret a variety of food chains, identifying producers, predators and prey• (WS) Make observations and classify different types of rocks• (WS) Make predictions of crystal size• (WS) Draw and present conclusions of crystal size• (WS) Model parts of the digestive system• (WS) Set up simple practical enquiries and comparative testing of tooth decay and digestion in the stomach
Sound	<ul style="list-style-type: none">• (K) Identify how sounds are made, associating some of them with something vibrating• (K) Recognise that vibrations from sounds travel through a medium to the ear• (K) Find patterns between the pitch of a sound and features of the object that produced it• (K) Find patterns between the volume of a sound and the strength of the vibrations that produced it• (K) Recognise that sounds get fainter as the distance from the sound source increases.• (WS) Draw conclusions - making an instrument• (WS) Model - string telephone, the ear and making a loudspeaker• (WS) Set up simple practical enquiries, comparative testing and pattern seeking of pitch• (WS) Set up simple practical enquiries and comparative testing of sound-proofing
Living Things and their Habitats	<ul style="list-style-type: none">• (K) Recognise that living things can be grouped in a variety of ways• (K) Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment• (K) Recognise that environments can change and this can sometimes pose dangers to living things• (WS) Make careful observations over time of living things in their habitats• (WS) Identify and classify living things based on their characteristics• (WS) Construct and interpret classification keys to answer questions• (WS) Predict what group living things belong to• (WS) Pattern-seeking• (WS) Follow a simple practical procedure• (WS) Use secondary source of information/data - booklet/video• (WS) Make a conclusion based on evidence

Electricity

- **(K)** Identify common appliances that run on electricity
- **(K)** Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- **(K)** 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
- **(K)** Recognise some common conductors and insulators, and associate metals with being good conductors.
- **(K)** Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- **(WS)** Make careful observation over time - effects of static electricity and how foods can power a circuit
- **(WS)** Predict what will happen in different circuits and properties of different materials
- **(WS)** Suggest solutions to electrical problems

The History of Science

- **(K)** Explore the requirements of plants for life and growth (Y3)
- **(K)** Notice that light is reflected from surfaces (Y3)
- **(K)** Notice that some forces need contact between 2 objects, whilst others act at a distance, (Y3)
- **(K)** Recognise that environments can change and that this can sometimes pose dangers to living things (Y4)
- **(K)** Compare and group materials together (Y4)
- **(WS)** Make systematic and careful observations
- **(WS)** Report on findings from enquiries, including oral and written explanations
- **(WS)** Use results to draw simple conclusions
- **(WS)** Identify differences, similarities or changes related to simple scientific ideas or processes
- **(WS)** Use simple straightforward evidence to answer questions or support their findings