

Year A

Science Topics; Year 2

Working Scientifically

- Can I ask simple scientific questions?
- Can I recognise that questions can be answered in different ways?
- Can I use simple equipment to make observations?
- Can I carry out simple tests?
- Can I identify and classify things?
- Can I suggest what I have found out from my observations?
- Can I gather and record data?
- Can I use simple data to answer questions?

Uses of Everyday Materials	Animals including humans	Living things and their habitats	Plants
Can I identify and compare the suitability of a variety of everyday materials, including wood, metal, glass, plastic, brick, rock, paper and cardboard for particular uses? (Q can I use this material for? If not why not? This item is made from this material. What other items are made from this material?) Can I find out how the shapes from solid objects can be changed by squashing, bending, twisting and stretching? (Compare objects at home, in the classroom, on the way to school and on visits)	Can I find out about and describe the basic needs for animals (water, food, air)? Can I understand the importance of exercise for the human body? Can I explain the importance of hygiene? Can I begin to identify healthy foods and understand how these keep humans alive? Can I notice that animals, including humans, have offspring that grow into adults? (Life cycles, measuring height of animals/plants as they grow)	Can I compare differences between living things, dead things and things that have never been alive? (Scavenger hunt, grouping found items on the playground) Can I identify that most living things have habitats to which they are suited? Can I describe how different habitats provide for the basic needs of different kinds of animals and plants? (create a wormery) Can I identify and name plants and animals in their habitats? (including microhabitats) Can I describe a simple food chain and explain how animals and plants get their food? (Hand out parts of food chain and	Can I observe and describe how seeds and bulbs grow into mature plants? Can I find out and describe how plants need water, light and a suitable temperature to grow and stay healthy? (Experiment with different conditions for plants)

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		children have to find the other people in their chain)	

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Science Topics; Year 4

Working Scientifically

Can I ask relevant questions and use different types of scientific enquiries to answer them?

Can I set up simple practical enquiries, comparative and fair tests?

Can I make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers?

Can I gather, record, classify and present data in a variety of ways to help in answering questions?

Can I record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables?

Can I report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions?

Can I use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions?

Can I identify differences, similarities or changes related to simple scientific ideas and processes?

Can I use straightforward scientific evidence to answer questions or to support my findings?

Living things and their habitats

Can I recognise that living things can be grouped in a variety of ways?

Can I explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment?

Can I recognise that environments can change and that this can sometimes pose dangers to living things?

Animals Including Humans

Can I describe the simple functions of the basic parts of the digestive system in humans?

Can I identify the different types of teeth in humans and their simple functions?

Can I construct and interpret a variety of food chains, identifying producers, predators and prey?

States of Matter

Can I compare and group materials together, according to whether they are solids, liquids or gases?

Can I 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)?

Can I identify the part played by evaporation and condensation in the water cycle and

Electricity

Can I identify common appliances that run on electricity?

Can I construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers?

Can I 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?

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		associate the rate of evaporation with temperature?	Can I recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit? Can I name some common conductors and insulators, and associate metals with being good conductors?
Sound Can I identify how sounds are made, associating some of them with something vibrating? Can I recognise that vibrations from sounds travel through a medium to the ear? Can I find patterns between the pitch of a sound and features of the object that produced it? Can I find patterns between the volume of a sound and the strength of the vibrations that produced it? Can I recognise that sounds get fainter as the distance from the sound source increases?			

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Science Topics; Year 6

Working Scientifically

Can I plan different types of scientific enquiry?

Can I control variables in an enquiry?

Can I measure accurately and precisely using a range of equipment?

Can I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs?

Can I use the outcome of test results to make predictions and set up a further comparative fair test?

Can I report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations?

Can I identify scientific evidence that has been used to support or refute ideas of arguments?

Living things and their habitats

Can I describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals?

Can I give reasons for classifying plants and animals based on scientific characteristics?

Animals Including Humans

Can I identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood?

Can I recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function?

Can I describe the ways in which nutrients and water are transported within animals, including humans?

Light

Can I recognise that light appears to travel in straight lines?

Can I use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye?

Can I explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes?

Can I use the idea that light travels in straight lines to explain why shadows have

Electricity

Can I associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit?

Can I 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?

Can I use recognised symbols when representing a simple circuit in a diagram?

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		the same shape as the objects that cast them?	
Evolution and Inheritance Can I recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago? Can I recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents? Can I identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution?			