

Science Knowledge Year 4

Living things and their habitats

Know the names of a variety of living things in their local and wider environment and use classification keys to identify them.

Know that living things can be grouped in a variety of ways

Know that environments can change and this can sometimes pose dangers to living things

Know how evaporation and condensation affect the water cycle and associate the rate of evaporation with temperature

Know and compare solids, liquids or gases including gels, foams, mists and pastes

Know that some materials change state when they are heated, cooled and measure or research the temperature at which it happens in degrees Celsius

States of Matter

Know how sounds are made, associating some of them with something vibrating

Sound

Know that vibrations from sounds travel through something to the ear

Know the pattern between the volume of a sound and the strength of the vibrations that produced it

Know that sounds get fainter at the distance from the sound source increases

Know the pattern between the pitch of a sound and features of what produced it

Know that some materials are conductors and insulators, explaining metals are good conductors

Electricity

Know that a switch opens and closes a circuit and associate this with if a lamp will light or not

Know the symbols for a simple electrical circuit including cells, wires, bulbs, switches and buzzers

Know if a lamp will light or not in a series circuit, based on whether or not the lamp is part of a complete loop with a battery

Identify common electrical appliances

Know the different types of teeth in humans and what they do

Know some parts of the digestive system in humans

Animals including humans

Know the place of producers, predators and prey within a food chain.

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

I can use scientific evidence to answer questions and support my findings

Working scientifically

I can ask relevant questions and use different types of scientific enquiry to answer them

I can identify similarities, differences or changes related to scientific ideas and processes

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

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

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

I can make systematic and careful observations and take accurate measurements using thermometers and data loggers

I can set up simple practical enquiries, comparative and fair tests