

Working Scientifically

Sound

Animals including humans

... ask scientific questions and answer them by doing investigations and experiments.

... understand what a fair test is and why it's important to make sure experiments are fair tests.

... collect and record data and use it to answer questions.

... spot patterns in the results of an experiment.

... use the results of my experiments and other evidence to write conclusions.

... use the results of experiments to make predictions and ask more questions.

... carry out different kinds of investigations to answer different questions.

... use different types of equipment, like thermometers and data loggers, in experiments.

... take accurate measurements.

... display data and other information in tables, bar charts, drawings and labelled diagrams.

... use evidence to answer questions.

... write and talk about the things I've found out in my investigations, using simple scientific words.



The Year 4 Scientist 'I can...'

... understand that the mouth, tongue, teeth, oesophagus, stomach and intestines make up the human digestive

... describe what each part of the digestive system does.

... understand that humans have molars for crushing food, canines for tearing food and incisors for cutting food.

... understand the difference between milk teeth and permanent teeth in humans.

... draw my own food chains.

... use food chains and food webs to find out what eats what.

... know that plants are producers and animals are consumers.

... know that animals that eat other animals are called predators, and the animals they eat are called prey.

... know that we hear sounds when vibrating air hits our ear drums.

... know that sounds are made when something vibrates.

... I know that vibrations from sounds travel through a medium (the air or another material).

... think of ways to improve an experiment.

... I know that a sound gets quieter the further away from where it's made.

... know that the pitch of a sound depends on the object that made it.

I know that the volume of a sound depends on the energy of the vibrations that made it.

States of Matter

Living things and their habitats

Electricity

... say whether a material is a solid, liquid or gas depending on its properties.

...measure the temperature at which materials change state in degrees Celsius.

... I can name some electrical appliances (devices) that run on electricity.

... I know what cells (batteries), wires, bulbs (lamps), switches and buzzers are.

... know that all the materials are either solids, liquids or gases and that they are called states of matter.

... know that some materials change state when they are heated or cooled.

... I can make a simple series circuit and name its parts.

... I know that a bulb will only light up if it is in a complete loop with a battery in a circuit.

... know that evaporation is when a liquid is heated and it turns into a gas.

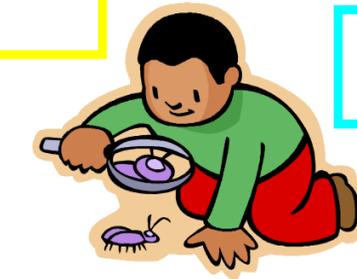
... I know that when a switch is open electricity won't flow in a circuit.

... I know that when a switch is closed electricity will flow in a circuit.

... know that condensation is when a gas is cooled and it turns into a liquid.

... I know that a bulb will only light up if any switches in the circuit are closed.

... I know that conductors allow electricity to pass through them.



The Year 4 Scientist
'I can...'

... know that the rate (speed) of evaporation depends on temperature.

... understand that changes to the environment can cause problems for living things.

... understand that the environment can change.

...I know that insulators don't allow electricity to pass through them.

... describe when evaporation and condensation happen in the water cycle.

... understand that living things can be put into groups such as animals, plants and micro-organisms

...I can name some common conductors.

... group, identify and name living things using classification keys.

...I know that metals are good conductors of electricity.

I can name some common insulators.