



Band 4 - Science All

Working Scientifically

Ask relevant questions and use different types of scientific enquiries to answer them (Year 4 focus).

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

Set up simple practical enquiries, comparative and fair tests (Year 4 focus).

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

Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers (Year 4 focus).

I can make systematic and careful observations, and take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.

Gather, record, classify and present data in a variety of ways to help with answering questions (Year 4 focus).

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

Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables (Year 4 focus).

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

Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions (Year 4 focus).

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

Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions (Year 4 focus).

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

Identify differences, similarities or changes related to simple scientific ideas and processes (Year 4 focus).

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

Use straightforward scientific evidence to answer questions or to support his/her findings (Year 4 focus).

I can use scientific evidence to answer questions or to support my findings.

Electricity

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.

I can predict if a lamp will light or not 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.

I can explain 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.

I can show that some materials are conductors and some are insulators, and can explain that metals are good conductors.

Animals Including Humans

Identify that humans and some other animals have skeletons and muscles for support, protection and movement.

I can explain why humans and some other animals have skeletons and muscles.

Living Things & Their Habitats

Recognise that living things can be grouped in a variety of ways.
I can show that living things can be grouped together in various ways.

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

Recognise that environments can change and that this can sometimes pose dangers and have an impact on living things.
I can explain that environments can change and that this sometimes means that living things are put in danger.

Construct and interpret a variety of food chains, identifying producers, predators and prey.
I can describe and explain a variety of food chains, naming producers, predators and prey.

Forces

Compare how things move on different surfaces.
I can compare how things move on different surfaces.

Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.
I can demonstrate the effects of air resistance, water resistance and friction, that act between moving surfaces.

States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.
I can group materials together, according to whether they are solids, liquids or gases, including tricky ones like gels, foams, mists and pastes.

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).
I can demonstrate and explain 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).

Materials

Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.
I can compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.

Recognise that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.
I can explain that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.

Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including by filtering, sieving and evaporating.
I can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including by filtering, sieving and evaporating.

Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.

Demonstrate that dissolving, mixing and changes of state are reversible changes.
I can demonstrate that dissolving, mixing and changes of state are reversible changes.