

Autumn 1

Light: recognise that they need light in order to see things and that dark is the absence of light
Light: notice that light is reflected from surfaces
Light: recognise that shadows are formed when the light from a light source is blocked by an opaque object
Light: find patterns in the way that the size of shadows change
Light: recognise that light from the sun can be dangerous and that there are ways to protect their eyes
WS: Gather, record, classify and present data in a variety of ways to help in answering questions
WS: Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Autumn 2

Animals, including humans: identify that humans and some other animals have skeletons and muscles for support, protection and movement.
Animals, including humans: identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
WS: Ask relevant questions and using different types of scientific enquiries to answer them

Spring 1

STEM Investigations

WS: Report on findings from enquires, including oral and written explanations, displays or presentations of results and conclusions

Spring 2

Forces & magnets: compare how things move on different surfaces
Forces & magnets: notice that some forces need contact between two objects, but magnetic forces can act at a distance
Forces & magnets: observe how magnets attract or repel each other and attract some materials and not others
Forces & magnets: compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
Forces & magnets: describe magnets as having two poles
Forces & magnets: predict whether two magnets will attract or repel each other, depending on which poles are facing
WS: Make systematic and careful observations and where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
WS: Set up simple practical enquiries, comparative and fair tests

Summer 1

Sound: identify how sounds are made, associating some of them with something vibrating

Sound: recognise that vibrations from sounds travel through a medium to the ear

Sound: find patterns between the pitch of a sound and features of the object that produced it

Sound: find patterns between the volume of a sound and the strength of the vibrations that produced it

Sound: recognise that sounds get fainter as the distance from the sound source increases

WS: Make systematic and careful observations and where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

WS: Set up simple practical enquires, comparative and fair tests

Summer 2

Plants: identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers

Plants: explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

STEM Investigations

WS: Recording findings using simple language, drawings, labelled diagrams, keys, bar charts and tables

Autumn 1

Living things & their habitats: recognise that living things can be grouped in a variety of ways
Living things & their habitats: explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
Living things & their habitats: recognise that environments can change and that this can sometimes pose dangers to living things.

WS: Identify differences, similarities or changes related to simple scientific ideas and processes

Autumn 2

Rocks: compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
Rocks: describe in simple terms how fossils are formed when things that have lived are trapped within rock
Rocks: recognise that soils are made from rocks and organic matter

WS: Use straightforward scientific evidence to answer questions or to support findings
 WS: Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
 WS: Gather, record, classify and present data in a variety of ways to help in answering questions

Spring 1

Electricity: identify common appliances that run on electricity
Electricity: construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
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
Electricity: recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
Electricity: recognise some common conductors and insulators, and associate metals with being good conductors

STEM Investigations

WS: Ask relevant questions and using different types of scientific enquiries to answer them

Spring 2

States of matter: 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)
States of matter: compare and group materials together, according to whether they are solids, liquids or gases
States of matter: identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

STEM Investigations

WS: Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Summer 1

Plants: explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant

Plants: investigate the way in which water is transported within plants

WS: Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables

Summer 2

Animals, including humans: describe the simple functions of the basic parts of the digestive system in humans

Animals, including humans: identify the different types of teeth in humans and their simple functions

Animals, including humans: construct and interpret a variety of food chains, identifying producers, predators and prey

WS: Identify differences, similarities or changes related to simple scientific ideas and processes

WS: Use straightforward scientific evidence to answer or to support findings

WS: Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables