

Science Planning For Year 4

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<p>Electricity</p> <ul style="list-style-type: none"> • identify common appliances that run on electricity • construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • 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 • recognise 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. <p>WS Methods(Must be done) Using different types of scientific enquiry to answer their own questions, including:</p> <ul style="list-style-type: none"> •observing changes over time, •noticing patterns, •grouping and classifying things, •carrying out simple comparative and fair tests •and finding things out using secondary sources 	<p>States of matter</p> <ul style="list-style-type: none"> • compare and group materials together, according to whether they are solids, liquids or gases • 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) • identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature . <p>WS Methods(Must be done) Using different types of scientific enquiry to answer their own questions, including:</p> <ul style="list-style-type: none"> •observing changes over time, •noticing patterns, •grouping and classifying things, •carrying out simple comparative and fair tests <p>and finding things out using secondary sources</p>	<p>Animals including humans (any term)</p> <ul style="list-style-type: none"> • describe the simple functions of the basic parts of the digestive system in humans • identify the different types of teeth in humans and their simple functions • construct and interpret a variety of food chains, identifying producers, predators and prey.(this PoS can be moved to link with Living things and their habitats) <p>WS Methods(Must be done) Using different types of scientific enquiry to answer their own questions, including:</p> <ul style="list-style-type: none"> • observing changes over time, • noticing patterns, • grouping and classifying things, • carrying out simple comparative and fair tests • and finding things out using secondary sources 	<p>Sound</p> <ul style="list-style-type: none"> • identify how sounds are made, associating some of them with something vibrating • recognise that vibrations from sounds travel through a medium to the ear • find patterns between the pitch of a sound and features of the object that produced it • find patterns between the volume of a sound and the strength of the vibrations that produced it • recognise that sounds get fainter as the distance from the sound source increases. <p>WS Methods(Must be done) Using different types of scientific enquiry to answer their own questions, including:</p> <ul style="list-style-type: none"> • observing changes over time, • noticing patterns, • grouping and classifying things, • carrying out simple comparative and fair tests <p>and finding things out using secondary sources</p>	<p>Living things and their habitat (term when weather is suitable to go outside to use keys to identify animals in local habitat)</p> <ul style="list-style-type: none"> • recognise that living things can be grouped in a variety of ways • explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • recognise that environments can change and that this can sometimes pose dangers to living things. <p>WS Methods(Must be done) Using different types of scientific enquiry to answer their own questions, including:</p> <ul style="list-style-type: none"> • observing changes over time, • noticing patterns, • grouping and classifying things, carrying out simple comparative and fair tests • and finding things out using secondary sources 	

Working Scientifically (PoS+Overview)

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- Ask their own questions about what they observe
- Make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including: observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources
- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and dataloggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.
- Draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

Additional overview comments

- To enable pupils to broaden their scientific view of the world around them
- Exploring, talking about, testing and developing ideas about everyday phenomena and beginning to develop their ideas about functions, relationships and interactions between living things and familiar environments.
- Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.

