



Science learning Objectives: Year 4

LIVING THINGS AND THEIR HABITATS	
I can recognise that living things can be grouped in a variety of ways	
I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	
I can recognise that environments can change and that this can sometimes pose dangers to living things.	
ANIMALS INCLUDING HUMANS	
I can describe the simple functions of the basic parts of the digestive system in humans	
I can identify the different types of teeth in humans and their simple functions	
I can construct and interpret a variety of food chains, identifying producers, predators and prey.	
STATES OF MATTER	
I can compare and group materials together, according to whether they are solids, liquids or gases	
I can 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 identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	
SOUND	
I can identify how sounds are made, associating some of them with something vibrating	
I can recognise that vibrations from sounds travel through a medium to the ear	
I can find patterns between the pitch of a sound and features of the object that produced it	
I can find patterns between the volume of a sound and the strength of the vibrations that produced it	
I can recognise that sounds get fainter as the distance from the sound source increases	
ELECTRICITY	
I can identify common appliances that run on electricity	
I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers	
I can 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 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 recognise some common conductors and insulators, and associate metals with being good conductors.	

SCIENTIFIC SKILLS		AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 2	SUMMER 2
Observation & Conclusion Year 3 and 4	<p>Choose what observations to make</p> <p>Know that questions can be answered in different ways</p> <p><i>Compare</i> what happened to what might have happened and give simple explanations</p> <p>Make a precise series of observations and measurements</p> <p>Classify simple features – flower, tree</p> <p>Examine closely and question what is seen</p>						
YEAR 4	<p>Make systematic and careful observations and comparisons</p> <p>Compare observations over time</p> <p>Categorise observations</p> <p>Begin to make theories</p> <p>Provide explanations using scientific language</p> <p>Use precise scientific language</p> <p>Ask relevant questions</p>						
Enquiry, Prediction, Testing Year 3 and 4	<p>Identify features of a fair test and carry out a fair test with help</p> <p>Think of questions to ask during testing</p> <p>Decide on approaches to answer questions and suggest own ideas</p> <p>Select suitable equipment</p> <p>Suggest improvements in their work</p> <p>Predict before testing</p> <p>Begin to repeat observations and measurements</p>						
YEAR 4	<p>Decide on the best approaches for enquiry</p> <p>Make predictions based on scientific knowledge</p> <p>Describe or show how to vary a factor and keep others the same</p> <p>Repeat tests and explain difference</p> <p>Review work and check predictions</p> <p>Suggest improvements giving reasons</p>						
Data Collection Year 3 and 4	<p>Use books and other sources of information</p> <p>Begin to suggest ways to collect data</p> <p>Recognise the importance of data collection</p> <ul style="list-style-type: none"> Make suggestions about how to collect data 						

	<ul style="list-style-type: none"> • Use graphs to find and interpret patterns 						
YEAR 4	<p>Recognise the importance of the evidence collected Compare and identify data patterns Select from a range of sources Question others about their work Know the work of some scientists Count and measure quantities accurately Use sources of information to analyse</p>						
RECORDING Year 3 and 4	<p>Record and label sketches and diagrams, sometimes with notes Use ICT to record results Begin to plot points for simple graphs</p>						
YEAR 4	<p>Use a range of scientific conventions Understand and begin to use both quantitative and qualitative data Record and present data in a variety of ways – tables, bar charts, line graphs</p>						