



Progression - Working Scientifically

KSI	-> LKS2	-> UKS2
KSI (Y1 and Y2) Asking Questions -ask simple questions and recognise that they can be answered in different ways Measuring and Recording -observe closely, using simple equipment -perform simple tests -gather and record data to help in answering questions Concluding -identify and classify -use their observations and ideas to suggest answers to questions	LKS2 (Y3 and Y4) Asking Questions -ask relevant questions and use different types of scientific enquiries to answer them -set up simple practical enquiries, comparative and fair tests Measuring and Recording -make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers -record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables -gather, record, classify and present data in a variety of ways to help in answering questions Concluding -identify differences, similarities or changes related to simple scientific ideas and processes	UKS2 (Y5 and Y6) Asking Questions -plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary Measuring and Recording -take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate -record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs Concluding -identify scientific evidence that has been used to support or refute ideas or arguments -report and present findings from enquiries,



- report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- use straightforward scientific evidence to answer questions or to support their findings

Evaluating

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

- including conclusions, causal relationships and explanations of and degree of trust in results
- present results in oral and written forms such as displays and other presentations

Evaluating

- use test results to make predictions to set up further comparative and fair tests



Year 3 and Year 4

Topic (Cross Curricular)	NC Topics/ Objectives
Predators (Cycle A)	Animals Including Humans (Y3 and Y4) • 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 • identify that humans and some other animals have skeletons and muscles for support, protection and movement. • construct and interpret a variety of food chains, identifying producers, predators and prey. Living Things and Their Habitats (Y4) • explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Sound (Y4) • 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
Egyptians (Cycle A)	Animals Including Humans (Y4) • identify the different types of teeth in humans and their simple functions Light (Y3) • recognise that they need light in order to see things and that dark is the absence of light • notice that light is reflected from surfaces • recognise that light from the sun can be dangerous and that there are ways to protect their eyes • recognise that shadows are formed when the light from a light source is blocked by a solid object



	• find patterns in the way that the size of shadows change. Forces (Y3) • compare how things move on different surfaces • notice that some forces need contact between 2 objects, but magnetic forces can act at a distance
Save Our Planet (Cycle A)	Living Things and Their Habitats (Y4) • recognise that environments can change and that this can sometimes pose dangers to living things. • recognise that living things can be grouped in a variety of ways Electricity (Y4) • 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.
Stone Age (Cycle B)	Rocks (Y3) • compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • describe in simple terms how fossils are formed when things that have lived are trapped within rock • recognise that soils are made from rocks and organic matter. Forces and Magnets (Y3) • compare how things move on different surfaces • notice that some forces need contact between two objects, but magnetic forces can act at a distance • observe how magnets attract or repel each other and attract some materials and not others • 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 describe magnets as having two poles • predict whether two magnets will attract or repel each other, depending on which poles are facing.



Romans (Cycle B)	<i>Digestion (Repeated skill) (Y4)</i> • describe the simple functions of the basic parts of the digestive system in humans <i>Plants (Y3)</i> • identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • 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 • investigate the way in which water is transported within plants • explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal
Dragons (Cycle B)	<i>States of matter (Y4)</i> • 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