Year 3 and Year 4 Science Overview

Cycle 1- 2023-24/

	Autumn 1	Autumn 2	● Spring 1	● Spring 2	● Summer 1	Summer 2
	Ruthless Romans	**The railways**	**Inside Out**	**Stone Age Rocks**	**The Amazing Americas**	**Food, Glorious Food**
Y3	**Rocks** Pupils should be taught to: ▪ 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.	**Rocks** Pupils should be taught to: ▪ 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** Pupils should be taught to: ▪ 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.		
Y4			**Animals inc humans** Pupils should be taught to: ▯ 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.		**Electricity** Pupils should be taught to: ▪ 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	**Living Things and habitats** Pupils should be taught to: ▯ 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

					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.	and that this can sometimes pose dangers to living things. **Animals inc humans** Pupils should be taught to: □ construct and interpret a variety of food chains, identifying producers, predators and prey.
Y3/4 Ongoing Working scientifically	● 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 data loggers ● 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.					

Cycle 2- 2024/25

	Autumn 1	Autumn 2	• Spring 1	• Spring 2	• Summer 1	Summer 2
	Extreme Earth	**Who let the Gods out?**	**Skeletons and Settlements**	**Raid, Invade and Stayed**	**Raging Rivers**	**Vicious Vikings**
Y3		**Light** Pupils should be taught to: ▪ 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 byan opaque object ▪ find patterns in the way that the size of shadows change.	**Animals including humans** Pupils should be taught to: ▪ 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.		**Plants** Pupils should be taught to: ▪ 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.	**Plants** Pupils should be taught to: ▪ 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.
Y4	**Sound** Pupils should be taught to: ▪ 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			**States of Matter** Pupils should be taught to: ▪ 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)		

	▪ 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.			▪ identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.		
Y3/4 Ongoing Working scientifically	● 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 data loggers ● 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.					