Year 4 2024/5	Autumn Term 1	Autumn Term 2	Spring Terms 1 and 2	Summer Term 1	Summer Term 2
	Sustainability **Year group focus for science week: school waste (food waste)**				
	Caring for our planet → Should vehicles be powered by fossil fuels? Royal Society of Chemistry – Electricity & batteries Page 2		Caring for our planet → How much waste does our school produce?	Caring for our planet → How environmentally friendly is a plant-based diet?	
Science Knowledge	**Animals including humans** •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 **Sound** • identify how sounds are made, associating some of them with something vibrating • recognise that vibrations from sounds travel through a medium to the ear	**Electricity** • 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.	**States of matter** • 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 .	**Sound** • identify how sounds are made, associating some of them with something vibrating **STICKY KNOWLEDGE* • recognise that vibrations from sounds travel through a medium to the ear **STICKY KNOWLEDGE* • 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.	**Living things and their habitats** • 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. • construct and interpret a variety of food chains, identifying producers, predators and prey.

Working Scientifically **Red= must be done** **Amber = this will be an easy link**	• 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.	• 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.	• 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.	• 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.	• 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.

WS Enquiry type **Red= that enquiry type MUST be done linked to the subject knowledge aspect but the other methods can be chosen to suit investigations**	• observing changes over time, • noticing patterns, • grouping and classifying things, • carrying out simple comparative and fair tests • and finding things out using secondary sources	• observing changes over periods of time, • noticing patterns, • grouping and classifying things, • carrying out simple comparative and fair tests • and finding things out using secondary sources	• observing changes over periods of time, • noticing patterns, • grouping and classifying things, • carrying out simple comparative and fair tests • and finding things out using secondary sources	• observing changes over periods of time, • noticing patterns, • grouping and classifying things, • carrying out simple comparative and fair tests • and finding things out using secondary sources	• observing changes over periods of time, • noticing patterns, • grouping and classifying things, • carrying out simple comparative and fair tests • and finding things out using secondary sources
WS ongoing	•Ask their own relevant questions about what they observe and using different types of scientific enquiries to answer them. •Draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.				