Year 4 Science Overview 2024-2025

Autumn 1 Sparks Might Fly! WR: Electricity-5weeks Sustainable energy- 2 weeks	**Autumn 2** The Great Plague WR: Sound- 8 weeks	**Spring 1** The Art of Food WR- Digestive system (7 weeks)	**Spring 2**Passport to Europe States of matter (10 weeks) States of matter	**Summer 1** Water, Water Everywhere WR: Grouping and classifying (5 weeks)	**Summer 2** Hunted WR:Habitats and food chains
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 **Working Scientifically** Talk about criteria for grouping, sorting and classifying (non-statutory).	**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 • 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 **Working Scientifically** – Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Making systematic and careful observations and, where appropriate, taking	**Digestive System** 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 Comparing the teeth of carnivores and herbivores and suggesting reasons for differences (non-statutory). **Working Scientifically** Identifying differences, similarities or changes related to simple scientific ideas and processes. Asking relevant questions and using different types of scientific enquiries to answer them. Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical	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. **Working scientifically** – Identifying differences, similarities or changes related to simple scientific ideas. – Talk about criteria for grouping, sorting and classifying (non-statutory).	• Recognise that living things can be grouped in different 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. • **Working scientifically** – Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. • Working scientifically – Gathering, recording, classifying and presenting data in a variety of ways, to	• Construct and interpret a variety of food chains, identifying producers, predators and prey To understand there are producers, consumers, predators, prey in a food chain and their roles and fucntions. Different habitats will have different food chains How food chains can be affected by farming, overfishing or human activity. **Working Scientifically** Using straightforward scientific evidence

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Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Asking relevant questions and using different types of scientific enquiries to answer them. **<u>Energy- Sustainability</u>** To understand what energy is. To discuss how we could reduce our energy usage. **<u>Working Scientifically</u>** Using straightforward scientific evidence to answer questions or to support their findings. Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions	accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Setting up simple practical enquiries, comparative and fair tests.	investigations (non-statutory). Setting up simple practical enquiries, comparative and fair tests. 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.	Asking relevant questions and using different types of scientific enquiries to answer them. – Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers – Setting up simple practical enquiries, comparative and fair tests – Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Identifying differences, similarities or changes related to simple scientific ideas and processes Asking relevant questions and using different types of scientific enquiries to answer them Using results to draw simple conclusions, make predictions for new values,	help in answering questions.. • Working scientifically – Asking relevant questions and using different types of scientific enquiries to answer them.	to answer questions or to support their findings. 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.

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