

Year 4 Science			
	Autumn Term 1		
Topic	Objectives linked to Curriculum	Working Scientifically	Vocabulary
<u>Living things and their habitats (grouping/simple classifying/changes to habitats)</u>	- I can recognise that living things can be grouped in a variety of ways. - I can explore and use classification keys to help group a variety of living things. - I can use classification keys to identify and name a variety of living things in their local and wider environment. - I can construct and interpret a variety of food chains, identifying producers, predators and prey. - I can recognise that environments can change. - I can show my understanding of how changes to the environment poses a danger to living things.	WS12 recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations.	Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate
<u>Year 4 Autumn Term 2</u>			
Topic	Objectives linked to curriculum	Working Scientifically	Vocabulary
<u>Animals, including humans (health: teeth, eating and digestion)</u>	- I can describe the simple functions of the basic parts of the digestive system in humans. - Name parts of digestive system. - Mouth - Tongue - Teeth - Oesophagus - Stomach	WS1 making decisions, asking relevant questions and using different types of scientific enquiries to answer them WS2 setting up simple practical enquiries, comparative and fair tests	Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine,

	• Large intestine • Small intestine • Role of • identify the different types of teeth in humans and their simple functions • I can set up a simple enquiry by making decisions and asking relevant questions • Science experiment: Eggs in water, milk, Fresh orange, cola,	WS3 making systematic and careful observations using notes and simple tables WS4 taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers WS5 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions WS6 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables WS7 reporting on findings from enquiries, using relevant scientific language, including oral and written explanations, displays or presentations of results and conclusions	nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain
	<u>Year 4 Spring Term 1</u>		
<u>Topic</u>	<u>Objectives linked to curriculum</u>	<u>Working Scientifically</u>	<u>Vocabulary</u>
<u>States of Matter (Exploring materials and developing descriptions of different states of matter)</u>	• I can explore a variety of everyday materials and develop simple descriptions of the states of matter. • I can compare and group materials together, according to whether they are solids, liquids.	WS1 making decisions, asking relevant questions and using different types of scientific enquiries to answer them WS2 setting up simple practical enquiries, comparative and fair tests	Solid, liquid, gas, state change, melting, freezing,

	• I can identify and explore the properties of gases. • I can observe that some materials change state when they are heated or cooled and measure the temperature at which this happens in degrees Celsius (°C) • Experiment: melting chocolate, light, dark and white chocolate. Measure temperatures that chocolate begins to melt. • I can research the temperature in degrees Celsius at which materials change state. • I can understand the process of condensation. • I can identify the part played by evaporation and condensation in the water cycle.	WS3 making systematic and careful observations using notes and simple tables WS4 taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers WS5 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions WS6 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables WS7 reporting on findings from enquiries, using relevant scientific language, including oral and written explanations, displays or presentations of results and conclusions WS8 using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions WS9 identifying differences, patterns, similarities or changes related to simple scientific ideas and processes WS10 using straightforward scientific evidence to answer questions or to support their findings. WS11 begin to look for naturally occurring patterns and relationships WS12 recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations	melting point, boiling point, evaporation, temperature, water cycle
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<u>Year 4 Spring Term 2</u>			
<u>Topic</u>	<u>Curriculum Links</u>	<u>Working Scientifically</u>	<u>Vocabulary</u>
<u>Sound (vibrations and volume)</u>	- 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. - I can use scientific enquiry to identify materials that prevent vibrations from sound sources reaching the ear. - I can investigate how sounds can be different pitches and volumes. - I can investigate how length, thickness and tightness of a string effects pitch. - I can understand how sounds can be made by air vibrating and how to change the pitch of notes produced by vibrating air.	WS1 making decisions, asking relevant questions and using different types of scientific enquiries to answer them WS2 setting up simple practical enquiries, comparative and fair tests WS3 making systematic and careful observations using notes and simple tables WS4 taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers WS5 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions WS6 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables WS7 reporting on findings from enquiries, using relevant scientific language, including oral and written explanations, displays or presentations of results and conclusions WS8 using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions WS9 identifying differences, patterns, similarities or changes related to simple scientific ideas and processes	Sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation

		WS10 using straightforward scientific evidence to answer questions or to support their findings. WS11 begin to look for naturally occurring patterns and relationships WS12 recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations.	
	<u>Year 4 Summer Term 1</u>		
<u>Topic</u>	<u>Curriculum links</u>	<u>Working Scientifically</u>	<u>Vocabulary</u>
<u>Electricity (simple circuit, switches, conductors and insulators)</u>	- I can identify common appliances that run on electricity. - I can construct a simple series circuit, identifying/naming its basic parts, including cell, wire, bulb, switch and buzzer. - I can use my circuits to create simple devices. - I can draw the circuit as a pictorial representation. (not necessarily using conventional circuit symbols) - I can understand about precautions for working safely with electricity. - I can identify whether or not a lamp will light in a simple series circuit. - 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.	WS1 making decisions, asking relevant questions and using different types of scientific enquiries to answer them WS2 setting up simple practical enquiries, comparative and fair tests WS3 making systematic and careful observations using notes and simple tables WS5 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions WS6 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables WS7 reporting on findings from enquiries, using relevant scientific language, including oral and written explanations, displays or presentations of results and conclusions WS8 using results to draw simple conclusions, make predictions for new	Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal,

		values, suggest improvements and raise further questions WS9 identifying differences, patterns, similarities or changes related to simple scientific ideas and processes WS10 using straightforward scientific evidence to answer questions or to support their findings.	symbol N.B. Children in Year 4 do not need to use standard symbols for electrical components, as this is taught in Year 6
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