

YEAR 4		
PROGRAMME OF STUDY	AUTUMN 1	AUTUMN 2
ELECTRICITY	<ul style="list-style-type: none"> 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 	
SOUND		<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Observe patterns (bulbs get brighter if more cells are added, metals tend to be conductors of electricity, some materials can and cannot be used to connect across a gap in a circuit. Construct simple series circuits trying different components such as bulbs, buzzers and motors including switches and compare. 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 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 straightforward scientific evidence to answer questions or to support their findings. 	<ul style="list-style-type: none"> Find patterns in the sounds that are made by different objects such as elastic bands of different thicknesses. Make phone telephones using string, and compare the volume/pitch of the sounds made. Make and play their own instruments by using what they have found out about pitch and volume. 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 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 straightforward scientific evidence to answer questions or to support their findings.
VOCABULARY	<ul style="list-style-type: none"> Cells, wires, bulbs, switches, buzzers, battery, circuit, series, conductors, insulators 	<ul style="list-style-type: none"> Volume, vibration, wave, pitch, tone, speaker

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PROGRAMME OF STUDY	SPRING 1	SPRING 2
ANIMALS, INCLUDING HUMANS	<ul style="list-style-type: none"> 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 	
WORKING SCIENTIFICALLY	<ul style="list-style-type: none"> Finding out what damages teeth and how to look after them – egg shell experiment. Draw conclusions from their findings suggesting reasons for the differences. Draw and discuss ideas about the digestive system and compare these with images/models. 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 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 straightforward scientific evidence to answer questions or to support their findings. 	

	<ul style="list-style-type: none"> identifying differences, similarities or changes related to simple scientific ideas and processes 	
VOCABULARY	<ul style="list-style-type: none"> Mouth, tongue, teeth, oesophagus, stomach, small intestine, large intestine, herbivore, carnivore, canine, incisor, molar 	

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PROGRAMME OF STUDY	SUMMER 1	SUMMER 2
STATES OF MATTER	<ul style="list-style-type: none"> 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 	
LIVING THINGS AND THEIR HABITATS		<ul style="list-style-type: none"> 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
WORKING SCIENTIFICALLY	<ul style="list-style-type: none"> Group and classify a variety of different materials; explore the effect of temperature on substances such as chocolate, butter, cream, water. Research temperature at which materials change state (when iron melts, when oxygen condenses into a liquid). Observe and record evaporation over a period of time (puddle in the playground) 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 straightforward scientific evidence to answer questions or to support their findings. identifying differences, similarities or changes related to simple scientific ideas and processes 	<ul style="list-style-type: none"> Using and making simple guides or keys to explore and identify local plants and animals Making a guide to local living things Raising and answering questions based on observations of animals and what they have found out about other animals that they have researched 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 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 straightforward scientific evidence to answer questions or to support their findings. identifying differences, similarities or changes related to simple scientific ideas and processes
VOCABULARY	<ul style="list-style-type: none"> Solid, liquid, gas, evaporation, condensation, precipitation, particles, temperature, freezing, heating, solidifying, Celsius Fahrenheit 	<ul style="list-style-type: none"> Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, snails, slugs, worms, spiders, arachnids, insects, environment, habitats,