



## YEAR 4 - NATIONAL CURRICULUM

SCIENCE	
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.
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.
	Construct and interpret a variety of food chains, identifying producers, predators and prey.
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.
Sound	Identify how sounds are made, associating some of them with something vibrating.
	Recognise that vibration 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.
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.
	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
Working Scientifically	Ask relevant questions and use different types of scientific enquiries to answer them.
	Set up simple practical enquiries, comparative and fair tests.
	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.
	Gather, record, classify and present data in a variety of ways to help in answering questions.
	Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
	Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
	Identify differences, similarities or changes related to simple scientific ideas and processes.
	Use straightforward scientific evidence to answer questions or to support their findings.
COMPUTING	
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	
Use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs.	
Understand computer networks including the internet; how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration.	
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	
Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	
MUSIC	
Play and perform in sole and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression.	
Improvise and compose music for a range of purposes using the interrelated dimensions of music.	
Listen with attention to detail and recall sounds with increasing aural memory.	
Use and understand staff and other musical notation.	
Appreciate and understand a range of high quality live and recorded music drawn from different traditions and from great composers and musicians.	
Develop and understand of the history of music.	
ART & DESIGN	
Create sketch books to record their observations and use them to review and revisit ideas.	
Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (eg pencil, charcoal, paint, clay).	
Find about great artists, architects and designers in history.	
+RELIGIOUS EDUCATION THEMES	
Inspirational people, Individuality, Journey after death, Christmas, Easter, Community	

GEOGRAPHY	
Human and Physical Knowledge	Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.
	Describe and understand key aspects of human geography including: types of settlement and land use, economic activity including trade links and the distribution of natural resources including energy, food, minerals and water.
Locational Knowledge	Locate the world's countries, using maps to focus on Europe (including Russia) and North and South America, concentrating of their environmental regions, key physical and human characteristics, countries and major cities.
	Name and locate countries and cities of the UK, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time.
	Identify the position and significance of latitude, longitude, Equator, Northern and Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night).
Place Knowledge	Understand geographical similarities and differences through the study of human and physical geography of a region of the UK, a region in a European country, and a region within North or South America.
Geographical Skills and Fieldwork	Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.
	Use eight points of the compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the UK and the wider world.
	Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.
HISTORY	
Learn about the Roman Empire and its impact on Britain.	
Learn about a non-European society that provides contrast with British history - one study chosen from: early Islamic civilisation, including a study of Baghdad AD 900; Mayan civilisation AD 900; Benin (West Africa) AD 900-1300.	
DESIGN & TECHNOLOGY	
Cooking and Nutrition	Understand and apply principles of a healthy and varied diet.
	Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
	Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
Design	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.
Evaluate	Investigate and analyse a range of existing products.
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
	Understand how key events and individuals in design and technology have helped shaped the world.
Make	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.
	Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.
Technical Knowledge	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
	Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].
	Apply their understanding of computing to program, monitor and control their products.
PE	
Use running, jumping, throwing and catching in isolation and in combination.	
Play competitive games, modified where appropriate and apply basic principles suitable for attacking and defending.	
Develop flexibility, strength, technique, control and balance.	
Perform dances using a range of movement patterns.	
Take part in outdoor and adventurous activity challenges both individually and within a team.	
Compare their performance with previous ones and demonstrate improvement to achieve their personal best.	