

SCIENCE

Animals (Including Humans)	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
	Describe the ways in which nutrients and water are transported within animals, including humans.
Electricity	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
	Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.
	Use recognised symbols when representing a simple circuit in a diagram.
Evolution and Inheritance	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
	Recognises that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
	Identify how animals and plants are adapted to suit their environment in different ways and that adaption may lead to evolution.
Living Things and their Habitats	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.
	Give reasons for classifying plants and animals based on specific characteristics.
Light	Recognise that light appears to travel in straight lines.
	Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.
	Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
	Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
Working Scientifically	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
	Use test results to make predictions to set up further comparative and fair tests.
	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
	Identify scientific evidence that has been used to support or refute ideas and arguments.

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

Teachings, World Action, Beliefs, 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

Study as aspect or theme in British History that extends pupils' chronological knowledge beyond 1066.

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.