



# Year 5 Overview Curriculum Objectives

## Science

- Living things and their habitats - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- Living things and their habitats - describe the life process of reproduction in some plants and animals.
- Animals, inc humans - describe the changes as humans develop to old age.
- Properties and changes of materials - compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
- Properties and changes of materials - know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- Properties and changes of materials - use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- Properties and changes of materials - give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- Properties and changes of materials - demonstrate that dissolving, mixing and changes of state are reversible changes
- Properties and changes of materials - explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.
- Earth and space - describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- Earth and space - describe the movement of the Moon relative to the Earth
- Earth and space - describe the Sun, Earth and Moon as approximately spherical bodies
- Earth and space - use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky.
- Forces - explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- Forces - identify the effects of air resistance, water resistance and friction, that act between moving surfaces
- Forces - recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.

## Working scientifically:

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments.

## Music

- play and perform in solo 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 inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory
- use and understand staff and other musical notations
- appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
- develop an understanding of the history of music.

## History - *Greeks, Anglo Saxons and Vikings.*

Pupils should be taught about Britain's settlement by Anglo-Saxons and Scots  
*This could include: Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire/Scots invasions from Ireland to north Britain (now Scotland) /Anglo-Saxon invasions, settlements and kingdoms: place names and village life/ Anglo-Saxon art and culture /Christian conversion – Canterbury, Iona and Lindisfarne*

Pupils should be taught about the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor.

*This could include: Viking raids and invasion/ resistance by Alfred the Great and Athelstan, first king of England/ further Viking invasions and Danegeld/ Anglo-Saxon laws and justice/ Edward the Confessor and his death in 1066*

Pupils should be taught a study of Greek life and achievements and their influence on the western world

DT – design a - 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  
DT – design b - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  
DT – make a - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  
DT – make b - 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  
DT – evaluate a - investigate and analyse a range of existing products  
DT – evaluate b - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work  
DT – evaluate c - understand how key events and individuals in design and technology have helped shape the world  
DT – technical a - apply their understanding of how to strengthen, stiffen and reinforce more complex structures  
DT – technical b - understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]  
DT – technical c - understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]  
DT – technical d - apply their understanding of computing to program, monitor and control their products.  
DT – cooking a - understand and apply the principles of a healthy and varied diet  
DT – cooking b - prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques  
DT – cooking c - understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

## 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 performances with previous ones and demonstrate

## Geography - *National parks, rivers and volcanoes*

Locational Knowledge:

- Locate the main countries in Europe and North or South America. Identify their main environmental regions, key physical and human characteristics, and major cities.
- Identify longest rivers in the world and compare with UK.
- Name and locate the key topographical features including coast, features of erosion and rivers. Understand how these features have changed over time.
- Identify the position and significance of latitude/longitude and the Greenwich Meridian. Linking with science, time zones, night and day

Place Knowledge:

- Compare a region in UK with a region in N. or S. America with significant differences and similarities.

Human & Physical:

- Describe and understand key aspects of: Physical geography, including: rivers and the water cycle including transpiration; climate zones, biomes and vegetation belts and volcanoes, looking at plate tectonics and the ring of fire.

Geographical skills & field work:

- Use the eight points of a compass, four-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom in the past and present.
- Use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

## Computing

Programming 1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts  
Programming 2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output  
Programming 3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs  
Networks 1 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  
Networks 2 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content  
Multimedia 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.  
Online safety use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

## Art

- to create sketch books to record their observations and use them to review and revisit ideas
- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials
- about great artists, architects and designers in history.