



Year 6 Overview Curriculum Objectives

Science

- 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 microorganisms, plants and animals
- Living things and their habitats - give reasons for classifying plants and animals based on specific characteristics.
- Animals, inc humans - identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
- Animals, inc humans - recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
- Animals, inc humans - describe the ways in which nutrients and water are transported within animals, including humans.
- 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
- Evolution and inheritance - recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- Evolution and inheritance - identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
- Light - recognise that light appears to travel in straight lines
- Light - 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
- Light - 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
- Light - use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
- Electricity - associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- Electricity - 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
- Electricity - use recognised symbols when representing a simple circuit in a diagram.

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 - *WW2, the British Empire, Shang Dynasty*

- Develop a chronologically secure knowledge and understanding of British history, establishing clear narratives within and across the periods they study.
- Note connections, contrasts and trends over time and develop the appropriate use of historical terms.
- Devise historically valid questions about change, cause, similarity and difference, and significance.
- Construct informed responses that involve thoughtful selection and organisation of relevant historical information.
- Understand how our knowledge of the past is constructed from a range of sources.

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 - *Climate change, mountains, trade fair.*

Locational Knowledge:

- Locate the main countries in Africa, Asia and Australasia/Oceania. Identify their main environmental regions, key physical and human characteristics, and major cities.
- Name and locate the key topographical features including hills and mountains. Understand how these features have changed over time.
- Identify highest mountains in the world and compare with UK.
- 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:

- Distribution of natural resources focusing on energy.
- Human geography including trade between UK and Europe and ROW
- Fair/unfair distribution of resources (Fairtrade).

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.
- Extend to 6 figure grid references with teaching of latitude and longitude in depth. Expand map skills to include non-UK countries.
- 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.