

Science

Biology

Plants

Look at the function of parts of flowering plants, requirements of growth, water transportation in plants, life cycles and seed dispersal.

Evolution and inheritance

Animals and humans

Look at the digestive system in humans.

Look at teeth.

Evolution and inheritance

Look at adaptation to environments.

Look at changes to the human skeleton over time.

All living things

Identify and name plants and animals'

Look at classification keys.

Chemistry

Rocks and fossils

Compare and group rocks and describe the formation of fossils.

States of matter

Look at solids, liquids and gases, changes of state, evaporation, condensation and the water cycle.

Physics

Light

Look at sources, seeing, reflections and shadows.

Explain how light appears to travel in straight lines and how this affects seeing and shadows.

Sound

Look at sources, vibration, volume and pitch

Forces and magnets

Look at contact and distant forces, attraction and repulsion, comparing and grouping materials.

Look at poles, attraction and repulsion.â€

Working Scientifically

Across all year groups scientific knowledge and skills should be learned by working scientifically. (This is documented in the Essentials for progress section.)

Physics

Electricity

Look at appliances, circuits, lamps, switches, insulators and conductors.

Art & Design

Use experiences, other subjects across the curriculum and ideas as inspiration for artwork.

Develop and share ideas in a sketchbook and in finished products.

Improve mastery of techniques.

Learn about the great artists, architects and designers in history.

Computing

Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Use sequence, selections and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.

Use logical reasoning to explain how a simple algorithm works, 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.

Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.

Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Design & Technology

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.

Make

Select from and use a wider range of tools and equipment to perform practical tasks, such as 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.

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.

Technical knowledge

Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors.

Cooking and nutrition

Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.

Geography

Locate the world's countries, with a focus on Europe and countries of particular interest to pupils.

Locate the geographic zones of the world.

Understand the significance of the geographic zones of the world.

Understand geographical similarities and differences through the study of human and physical geography of a region or area of the United Kingdom (different from that taught at Key Stage 1).

Describe and understand key aspects of:

- physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle

- human geography, including: settlements, land use, economic activity including trade links and the distribution of natural resources including energy, food, minerals and water supplies.

Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.

Use the eight points of a compass, four-figure grid references, symbols and keys (including the use of Ordnance Survey maps) to build knowledge of the United Kingdom and the world.

Use a wide range of geographical sources in order to investigate places and patterns.

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.

History

The Roman Empire and its Impact on Britain.

The Viking and Anglo Saxon struggle for the Kingdom of England.

A local history study.

Early Civilizations achievements and an in-depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty.

A non- European society that contrasts with British history chosen from:

- Early Islamic Civilization
- Mayan Civilization
- Benin.

History of interest to pupils.

Language

In the chosen modern language:

- Speak
- Read
- Write.

Religious Education

Study at least two other religions in depth. Choose from Buddhism, Hinduism, Islam, Judaism or Sikhism.

Study three of the major six religions not studied in depth in order to gain a brief outline.

Study other religions of interest to pupils.