

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

All living things

Identify and name plants and animals'

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.

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.)

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.

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.

Understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

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

Cooking and nutrition

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.

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 geographical similarities and differences through the study of human and physical geography of a region or area in a European country.

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

History

Changes in Britain from the Stone Age to the Iron Age.

Britain's settlement by Anglo Saxons and Scots.

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

Language

In the chosen modern language:

- Speak
- Read
- Write.

Look at the culture of the countries where the language is spoken.

Music

Play and perform in solo and ensemble contexts, using voice and playing instruments with increasing accuracy, control and expression.

Improvise and compose music using the inter-related dimensions of music separately and in combination.

Listen with attention to detail and recall sounds with increasing aural memory.

Use and understand the basics of the staff and other musical notations.

Appreciate and understand a wide range of high-quality live and recorded music from different traditions and from great musicians and composers.

Develop an understanding of the history of music.

#### Physical Education

Play competitive games, modified where appropriate, such as football, netball, rounders, cricket, hockey, basketball, badminton and tennis and apply basic principles suitable for attacking and defending.

Take part in gymnastics activities.

Take part in athletics activities.

Perform dances.

Take part in outdoor and adventurous activity challenges both individually and within a team.