



Year 4 Curriculum Overview

Science

Rocks

- compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- describe in simple terms how fossils are formed when things that have lived are trapped within rock
- recognise that soils are made from rocks and organic matter.

Sound

- identify how sounds are made, associating some of them with something vibrating
- recognise that vibrations from sounds travel through a medium to the ear
- find patterns between the pitch of a sound and features of the object that produced it
- find patterns between the volume of a sound and the strength of the vibrations that produced it
- recognise that sounds get fainter as the distance from the sound source increases.

Electricity

- identify common appliances that run on electricity
- construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
- recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- recognise some common conductors and insulators, and associate metals with being good conductors.

States of Matter

- compare and group materials together, according to whether they are solids, liquids or gases
- observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
- identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Living things and their habitats

- recognise that living things can be grouped in a variety of ways
- explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- recognise that environments can change and that this can sometimes pose dangers to living things.

PE

- use running, jumping, throwing and catching in isolation and in combination
- play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending
- develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
- 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 improvement to achieve their personal best.

History

- the Roman Empire and its impact on Britain
- a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066 (a significant turning point in British history, for example, the Battle of Britain)
- a local history study (Tyne Valley and the Wider world: The Industrious North! Armstrong, Stephenson)

Geography

Locational knowledge

- locate the world's countries, using maps to focus on Europe and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
- name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics and key topographical features (including hills, mountains, coasts and rivers)

Place knowledge

- understand geographical similarities and differences through the study of human and physical geography

Human and physical geography

- describe and understand key aspects of physical geography, including: volcanoes and earthquakes, and the water cycle

Geographical skills and fieldwork

- use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom 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.

French

- understand and respond to spoken and written language
- speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation
- write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt

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.



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Art

- 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 [for example, pencil, charcoal, paint, clay]
- learn about great artists, architects and designers in history.

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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 [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

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
- 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.

Cooking and nutrition

- understand and apply the 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.

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 some 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.

PSHE

Health and Wellbeing

- Healthy lifestyles (physical wellbeing)
- Mental health
- Ourselves, growing and changing
- Keeping safe
- Drugs, alcohol and tobacco

Relationships

- Families and close positive relationships
- Friendships
- Managing hurtful behaviour and bullying
- Safe relationships
- Respecting self and others

Living in the Wider World

- Shared responsibilities
- Communities
- Media literacy & digital resilience
- Economic wellbeing: Money
- Economic wellbeing: Aspirations, work and career

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Christianity, Judaism and the Northern Saints

- Describe and make connections between different features of the religions and worldviews they study, discovering more about celebrations, worship, pilgrimages, and the rituals which mark important points in life, in order to reflect on their significance.
- Describe and understand links between stories and other aspects of the communities they are investigating, responding thoughtfully to a range of sources of wisdom and to beliefs and teachings that arise from them in different communities
- Explore and describe a range of beliefs, symbols, and actions so that they can understand different ways of life and ways of expressing meaning.
- Observe and understand different examples of religions and worldviews so that they can explain, with reasons, their meaning and significance to individuals and communities.
- Discuss and apply their own and others' ideas about ethical questions, including ideas about what is right and wrong and what is just and fair, and express their own ideas clearly in response.