

CONTENT OF THE CURRICULUM YEAR 4

English

Reading

Secure decoding of unfamiliar words
 Read for a range of purposes
 Retell some stories orally
 Discuss words & phrases that capture the imagination
 Identify themes & conventions
 Retrieve & record information
 Make inferences & justify predictions
 Recognise a variety of forms of poetry
 Identify & summarise ideas

Writing

Correctly spell common homophones
 Increase regularity of handwriting
 Plan writing based on familiar forms
 Organise writing into paragraphs
 Use simple organisational devices
 Proof-read for spelling & punctuation errors
 Evaluate own and others' writing
 Read own writing aloud

Grammar

Use wider range of conjunctions
 Use perfect tense appropriately
 Select pronouns and nouns for clarity
 Use & punctuate direct speech
 Use commas after front adverbials

Speaking & Listening

Articulate & justify opinions
 Speak audibly in Standard English
 Gain, maintain & monitor interest of listeners

Maths

Number/Calculation

Know all tables to 12 x 12
 Secure place value to 1000
 Use negative whole numbers
 Round numbers to nearest 10, 100 or 1000
 Use Roman numerals to 100 (C)
 Column addition & subtraction up to 4 digits
 Multiply & divide mentally
 Use standard short multiplication

Geometry & Measures

Compare 2-d shapes, including quadrilaterals & triangles
 Find area by counting squares
 Calculate rectangle perimeters
 Estimate & calculate measures
 Identify acute, obtuse & right angles
 Identify symmetry
 Use first quadrant coordinates
 Introduce simple translations
 Use bar charts, pictograms & line graphs

Fractions & decimals

Recognise tenths & hundredths
 Identify equivalent fractions
 Add & subtract fractions with common denominators
 Recognise common equivalents
 Round decimals to whole numbers
 Solve money problems

Science

Across all year groups scientific knowledge and skills should be learned by working scientifically

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

Look at resemblance in offspring
 Look at changes in animals over time
 Look at adaptation to environments
 Look at differences in offspring
 Look at adaptation and evolution
 Look at changes to the human skeleton over time

Animals and humans

Look at nutrition, transportation of water and nutrients in the body, and the muscle and skeleton system of humans and animals
 Look at the digestive system in humans
 Look at teeth

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.

Materials

Examine the properties of materials using various tests
 Look at solubility and recovering dissolved substances
 Separate mixtures
 Examine changes to materials that create new materials that are usually not reversible

Biology

Light

Look at sources, seeing, reflections and shadows

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

Sound

Look at sources, vibration, volume and pitch

Electricity

Look at appliances, circuits, lamps, switches, insulators and conductors
 Look at circuits, the effect of the voltage in cells and the resistance and conductivity of materials

Forces and magnets

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

Look at the human circulatory system

All living things

Identify and name plants and animals

Look at classification keys

Look at the life cycle of animals and plants

Look at classification of plants, animals and microorganisms

Look at reproduction in plants and animals, and human growth and changes

Look at the effect of diet, exercise and drugs

Look at the effect of gravity and drag forces

Look at transference of forces in gears, pulleys, levers and springs

Earth and space

Look at the movement of the Earth and the Moon

Explain day and night

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 and Technology

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.

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.
- understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages.
- understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors.
- apply their understanding of computing to programme, 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.

Geography

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

Locate the world's countries, with focus on North and South America and countries of particular interest to pupils

Identify key geographical features of the countries of the United Kingdom, and show an understanding of how some of these aspects have changed over time.

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)

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

Understand geographical similarities and differences through the study of the human and physical geography of a region or area within North or South America

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

PE

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

Swimming and water safety: take swimming instruction in Key Stage 2

History

Changes in Britain from the Stone Age to the Iron Age

The Roman Empire and its Impact on Britain

Britain's settlement by Anglo Saxons and Scots

The Viking and Anglo Saxon struggle for the Kingdom of England

A local history study.

A study of a theme in British history.

Early Civilizations achievements and an in-depth study of one of the following:

Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty

Ancient Greece

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

- Early Islamic Civilization
- Mayan Civilization
- Benin

History of interest to pupils*

* Items marked * are not statutory.

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

RE

Study the main stories of Christianity

Study at least one other religion. Choose from Buddhism,

Hinduism, Islam, Judaism or Sikhism

Study other religions of interest to pupils

Art and 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