

## Science - National Curriculum Coverage

During Years 3 and 4 pupils will learn about:

### Working Scientifically:

Asking relevant questions and using different types of scientific enquiries to answer them.

Setting up simple practical enquiries, comparative and fair tests.

Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.

Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.

Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.

Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Identifying differences, similarities or changes related to simple scientific ideas and processes

using straightforward scientific evidence to answer questions or to support their findings.

### Plants:

Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.

Investigate the way in which water is transported within plants explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

### Animals, including humans:

Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.

Identify that humans and some other animals have skeletons and muscles for support, protection and movement.

### Light and Sound

Notice that light is reflected from surfaces.

Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.

Recognise that shadows are formed when the light from a light source is blocked by a solid object.

Find patterns in the way that the size of shadows change.

Identify how sounds are made, associating some of them with vibrating.

Recognise that vibrations from sound travels 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

### 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 recognise that they need light in order to see things and that dark is the absence of light.

## Geography - National Curriculum Coverage

Pupils will learn to:

- locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
- identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)
- understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, and a region within North or South America
- describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts
- describe and understand key aspects of human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water
- 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.

### Year 3 Topics:

Brainwaves  
How Humans Work  
Scavengers and Settlers  
Active Planet  
Gateway to the World

## Design and Technology National Curriculum Coverage

When designing and making pupils will learn how to:

Use, research & 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.

Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.

Investigate and analyse a range of products, evaluate ideas and products against their own design criteria and consider the views of others to improve their work.

Pupils will learn to understand and apply the principles of a healthy and varied diet and to know where and how a variety of ingredients are grown, reared, caught & processed.

## Art National Curriculum Coverage

Across KS2 children will develop their techniques, including control and use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft & design.

Pupils will learn:

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

## Music National Curriculum Coverage

During Years 3 to 6 Pupils will learn to:

- 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 interrelated 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.

## Computing National Curriculum Coverage

Pupils will learn how to:

- 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 programmes; 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.

## History National Curriculum Coverage

Pupils will learn about:

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

The Roman Empire and its impact on Britain.

The achievements of the earliest civilisations