

**Year 3**  
**Curriculum**

<b>Subject</b>	<b>Learning Objectives</b>	<b>Essential Skills for Progress</b>
<b>Science</b>	<p><b>To work scientifically</b></p>          <p><b>Biology:</b></p> <ul style="list-style-type: none"><li>• <b>To understand plants</b></li></ul>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"><li>• Ask relevant questions.</li><li>• Set up simple practical enquiries and comparative and fair tests.</li><li>• Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers.</li><li>• Gather, record, classify and present data in a variety of ways to help in answering questions.</li><li>• Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.</li><li>• Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li><li>• Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests.</li><li>• Identify differences, similarities or changes related to simple, scientific ideas and processes.</li><li>• Use straightforward, scientific evidence to answer questions or to support their findings.</li></ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"><li>• Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers.</li><li>• 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.</li><li>• Investigate the way in which water is transported within plants.</li></ul>

- **To understand animals and humans**

**Chemistry:**

- **To investigate materials**

**Physics:**

- **To understand light and seeing**

- **To understand movement, forces and magnets**

- Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Pupils should be taught to:

- Identify that animals, including humans, need the right types and amounts of nutrition, that they cannot make their own food and they get nutrition from what they eat.
- Identify that humans and some animals have skeletons and muscles for support, protection and movement

Pupils should be taught to:

- Compare and group together different kinds of rocks on the basis of their simple, physical properties.
- Relate the simple physical properties of some rocks to their formation (igneous or sedimentary).
- Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock.

Pupils should be taught to:

- Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes.
- Notice that light is reflected from surfaces.
- Associate shadows with a light source being blocked by something; find patterns that determine the size of shadows.

Pupils should be taught to:

- Notice that some forces need contact between two objects and some forces act at a distance.
- Observe how magnets attract or repel each other and attract some materials and not others.
- Compare and group together a variety of everyday materials on

		<p>the basis of whether they are attracted to a magnet and identify some magnetic materials.</p> <ul style="list-style-type: none"> <li>• Describe magnets as having two poles.</li> <li>• Predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>
<p><b>History</b></p>	<p>Statutory requirements:</p> <ul style="list-style-type: none"> <li>• The Viking and Anglo Saxon struggle for the Kingdom of England.</li> <li>• A non- European society that contrasts with British history chosen from: <ul style="list-style-type: none"> <li>• Early Islamic Civilization</li> <li>• Mayan Civilization</li> <li>• Benin.</li> </ul> </li> <li>• A local history study.</li> <li>• A study of a theme in British history.</li> </ul> <p>History of interest to pupils*</p> <ul style="list-style-type: none"> <li>• <b>To investigate and interpret the past</b></li> <li>• <b>To build and overview of world history</b></li> </ul>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Use evidence to ask questions and find answers to questions about the past.</li> <li>• Suggest suitable sources of evidence for historical enquiries.</li> <li>• Use more than one source of evidence for historical enquiry in order to gain a more accurate understanding of history.</li> <li>• Describe different accounts of a historical event, explaining some of the reasons why the accounts may differ.</li> <li>• Suggest causes and consequences of some of the main events and changes in history</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Describe changes that have happened in the locality of the school throughout history.</li> <li>• Give a broad overview of life in Britain from ancient until</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>To understand chronology</b></li>   <li>• <b>To communicate historically</b></li> </ul>	<p>medieval times.</p> <ul style="list-style-type: none"> <li>• Compare some of the times studied with those of other areas of interest around the world.</li> <li>• Describe the social, ethnic, cultural or religious diversity of past society.</li> <li>• Describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Place events, artefacts and historical figures on a time line using dates.</li> <li>• Understand the concept of change over time, representing this, along with evidence, on a time line.</li> <li>• Use dates and terms to describe events.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Use appropriate historical vocabulary to communicate, including: <ul style="list-style-type: none"> <li>• dates</li> <li>• time period</li> <li>• era</li> <li>• change</li> <li>• chronology.</li> </ul> </li> <li>• Use literacy, numeracy and computing skills to a good standard in order to communicate information about the past.</li> </ul>
<p><b>Geography</b></p>	<ul style="list-style-type: none"> <li>• <b>To investigate places</b></li> </ul>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Ask and answer geographical questions about the physical and human characteristics of a location.</li> <li>• Explain own views about locations, giving reasons.</li> <li>• Use maps, atlases, globes and digital/computer mapping to locate countries and describe features.</li> <li>• Use fieldwork to observe 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.</li> </ul>

- **To investigate patterns**

- **To communicate geography**

- Use a range of resources to identify the key physical and human features of a location.
- Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, including hills, mountains, cities, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time.
- Name and locate the countries of Europe and identify their main physical and human characteristics.

Pupils should be taught to:

- Name and locate the Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle and date time zones. Describe some of the characteristics of these geographical areas.
- Describe geographical similarities and differences between countries.
- Describe how the locality of the school has changed over time.

Pupils should be taught to:

- To describe the key aspects of:  
Mountains (Physical Geography)
- To describe the key aspects of Volcanoes and earthquakes (Physical Geography)

## Art and Design

### *Pupils should be given opportunities to:*

- 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.

- **To develop ideas**

- **To master techniques**

Painting

Drawing

Pupils should be taught to:

- Develop ideas from starting points throughout the curriculum.
- Collect information, sketches and resources.
- Adapt and refine ideas as they progress.
- Explore ideas in a variety of ways.
- Comment on artworks using visual language.

Pupils should be taught to:

- Use a number of brush techniques using thick and thin brushes to produce shapes, textures, patterns and lines.
- Mix colours effectively.
- Use watercolour paint to produce washes for backgrounds then add detail.
- Experiment with creating mood with colour.

Pupils should be taught to:

- Use different hardnesses of pencils to show line, tone and texture.
- Annotate sketches to explain and elaborate ideas.
- Sketch lightly (no need to use a rubber to correct mistakes).
- Use shading to show light and shadow.
- Use hatching and cross hatching to show tone and texture.

	<p>Print</p> <p>Sculpture</p> <p>Digital Media</p> <ul style="list-style-type: none"> <li>• <b>To take inspiration from the greats (classic and modern)</b></li> </ul>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Use layers of two or more colours.</li> <li>• Replicate patterns observed in natural or built environments.</li> <li>• Make printing blocks (e.g. from coiled string glued to a block).</li> <li>• Make precise repeating patterns.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Create and combine shapes to create recognisable forms (e.g. shapes made from nets or solid materials).</li> <li>• Include texture that conveys feelings, expression or movement.</li> <li>• Use clay and other mouldable materials.</li> <li>• Add materials to provide interesting detail.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Create images, video and sound recordings and explain why they were created.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Replicate some of the techniques used by notable artists, artisans and designers.</li> <li>• Create original pieces that are influenced by studies of others.</li> </ul>
<p><b>Design and Technology</b></p>	<p><i>Pupils should be given opportunities to:</i></p> <p>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. They should work in a range of relevant contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment.</p> <p>When designing and making, pupils should be taught to:</p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for</li> </ul>	

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.



	<ul style="list-style-type: none"> <li>• <b>To master practical skills</b> Textiles</li>   <li>Mechanics</li>   <li>Construction</li>   <li>Computing</li>   <li>• <b>To design, make, evaluate and improve</b></li>   <li>• <b>To take inspiration from design throughout history</b></li> </ul>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Understand the need for a seam allowance.</li> <li>• Join textiles with appropriate stitching.</li> <li>• Select the most appropriate techniques to decorate textiles.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Choose suitable techniques to construct products or to repair items.</li> <li>• Strengthen materials using suitable techniques.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Control and monitor models using software designed for this purpose.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Design with purpose by identifying opportunities to design.</li> <li>• Make products by working efficiently (such as by carefully selecting materials).</li> <li>• Refine work and techniques as work progresses, continually evaluating the product design.</li> <li>• Use software to design and represent product designs.</li> </ul> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.</li> <li>• Improve upon existing designs, giving reasons for choices.</li> <li>• Disassemble products to understand how they work.</li> </ul>
--	---	---

## Computing

- **To code**

Motion

Looks

Sound

Draw

Events

Control

Sensing

Variables and lists

Operators

- **To connect**

Pupils should be taught to:

- Use specified screen co-ordinates to control movement
- Set the appearance of objects and create sequences of changes
- Create and edit sounds. Control when they are heard, their volume, duration and rests.
- Control the shade of pens
- Specify conditions to trigger events
- Use IF THEN conditions to control events or objects
- Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions)
- Use variable to store a value
- Use the functions define, set, change, show and hide to control the variables
- Use the Reporter operators  
() + ()  
() - ()  
() \* ()  
() / ()  
to perform calculations

- Contribute to blogs that are moderated by teachers.
- Give examples of the risks posed by online communications.
- Understand the term 'copyright'.

	<ul style="list-style-type: none"> <li>• <b>To communicate</b></li> <li>• <b>To collect</b></li> </ul>	<ul style="list-style-type: none"> <li>• Understand that comments made online that are hurtful or offensive are the same as bullying.</li> <li>• Understand how online services work.</li> <li>• Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.</li> <li>• Devise and construct databases using applications designed for this purpose in areas across the curriculum.</li> </ul>
<b>Religious Education</b>	<p><i>Pupils should be given opportunities to:</i></p> <ul style="list-style-type: none"> <li>• <i>Study the beliefs, festivals and celebrations of Christianity</i></li> <li>• <i>Study at least two other religions in depth.</i></li> <li>• <i>Study three of the major six religions not studied in depth in order to gain a brief outline</i></li> <li>• <i>Study other religions of interest to pupils</i></li> </ul>	<p>Pupils should discuss:</p> <ul style="list-style-type: none"> <li>• Why is the Bible important?</li> </ul> <p>Pupils should be taught about:</p> <ul style="list-style-type: none"> <li>• Christmas perspectives</li> <li>• Jesus the healer</li> </ul> <p>Pupils should be taught about:</p> <ul style="list-style-type: none"> <li>• Sikhism – key beliefs, Guru, Granth Sahib and Nanak</li> <li>• Christianity and the wider church</li> <li>• Islam – Allah and Angels</li> <li>• Islam – Family life</li> </ul>
<b>Music</b>	<p><i>Pupils should be given opportunities to:</i></p> <ul style="list-style-type: none"> <li>• <i>Play and perform in solo and ensemble contexts, using voice and playing instruments with increasing accuracy, control and expression.</i></li> <li>• <i>Improvise and compose music using the inter-related dimensions of music separately and in combination.</i></li> <li>• <i>Listen with attention to detail and recall sounds with increasing aural memory.</i></li> <li>• <i>Use and understand the basics of the staff and other musical notations.</i></li> <li>• <i>Appreciate and understand a wide range of high-quality live and recorded music from different traditions and from great musicians and composers.</i></li> <li>• <i>Develop an understanding of the history of music.</i></li> </ul> <ul style="list-style-type: none"> <li>• <b>To perform</b></li> </ul>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Sing from memory with accurate pitch.</li> </ul>

- **To compose**

- **To transcribe**

- **To describe music**

- Sing in tune.
- Maintain a simple part within a group.
- Pronounce words within a song clearly.
- Show control of voice.
- Play notes on an instrument with care so that they are clear.
- Perform with control and awareness of others.

Pupils should be taught to:

- Compose and perform melodic songs.
- Use sound to create abstract effects.
- Create repeated patterns with a range of instruments.
- Create accompaniments for tunes.
- Use drones as accompaniments.
- Choose, order, combine and control sounds to create an effect.
- Use digital technologies to compose pieces of music.

Pupils should be taught to:

- Devise non-standard symbols to indicate when to play and rest.
- Recognise the notes EGBDF and FACE on the musical stave.
- Recognise the symbols for a minim, crotchet and semibreve and say how many beats they represent.

Pupils should be taught to:

- Use the terms: duration, timbre, pitch, beat, tempo, texture and use of silence to describe music.
- Evaluate music using musical vocabulary to identify areas of likes and dislikes.
- Understand layers of sounds and discuss their effect on mood and feelings.