

- **To understand animals and humans**

- **To understand plants**

Chemistry:

- **To investigate materials**

Pupils should be taught to:

- Describe the life process of reproduction in some plants and animals.
- Describe the changes as humans develop from birth to old age.
- Recognise the impact of diet, exercise, drugs and lifestyle on the way human bodies function

Pupils should be taught to:

- Relate knowledge of plants to studies of evolution and inheritance.
- Relate knowledge of plants to studies of all living things.

Pupils should be taught to:

- Compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, conductivity (electrical and thermal), and response to magnets.
- Understand how some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
- Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
- Demonstrate that dissolving, mixing and changes of state are reversible changes.
- Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning, oxidation and the action of acid on bicarbonate of soda.

- **To build and overview of world history**

- **To understand chronology**

- **To communicate historically**

the past.

- Seek out and analyse a wide range of evidence in order to justify claims about the past.
- Show an awareness of the concept of propaganda and how historians must understand the social context of evidence studied.
- Understand that no single source of evidence gives the full answer to questions about the past.
- Refine lines of enquiry as appropriate.

Pupils should be taught to:

- Identify continuity and change in the history of the locality of the school.
- Give a broad overview of life in Britain from medieval until the Tudor and Stuarts times.
- Compare some of the times studied with those of the other areas of interest around the world.
- Describe the social, ethnic, cultural or religious diversity of past society.
- Describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children.

Pupils should be taught to:

- Describe the main changes in a period of history (using terms such as: social, religious, political, technological and cultural).
- Identify periods of rapid change in history and contrast them with times of relatively little change.
- Understand the concepts of continuity and change over time, representing them, along with evidence, on a time line.
- Use dates and terms accurately in describing events.

Pupils should be taught to:

- Use appropriate historical vocabulary to communicate, including:

		<ul style="list-style-type: none"> • dates • time period • era • chronology • continuity • change • century • decade • legacy. • Use literacy, numeracy and computing skills to a exceptional standard in order to communicate information about the past. • Use original ways to present information and ideas.
<p>Geography</p>	<p><i>Pupils should be given opportunities to:</i></p> <ul style="list-style-type: none"> • <i>Locate the world's countries, with a focus on Europe and countries of particular interest to pupils.</i> • <i>Locate the world's countries, with focus on North and South America and countries of particular interest to pupils.</i> • <i>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.</i> • <i>Locate the geographic zones of the world.</i> • <i>Understand the significance of the geographic zones of the world.</i> • <i>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).</i> • <i>Understand geographical similarities and differences through the study of human and physical geography of a region or area in a European country.</i> • <i>Understand geographical similarities and differences through the study of the human and physical geography of a region or area within North or South America.</i> • <i>Describe and understand key aspects of:</i> <ul style="list-style-type: none"> • <i>physical geography, including: climate zones, biomes and vegetation belts, rivers,</i> 	

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.*

- **To investigate places**

Pupils should be taught to:

- Collect and analyse statistics and other information in order to draw clear conclusions about locations.
- Identify and describe how the physical features affect the human activity within a location.
- Use a range of geographical resources to give detailed descriptions and opinions of the characteristic features of a location.
- Use different types of fieldwork sampling (random and systematic) to observe, measure and record the human and physical features in the local area. Record the results in a range of ways.
- Analyse and give views on the effectiveness of different geographical representations of a location (such as aerial images compared with maps and topological maps - as in London's Tube map).
- Name and locate some of the countries and cities of the world and their identifying human and physical characteristics,

- **To investigate patterns**

- **To communicate geography**

including hills, mountains, 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 North and South America and identify their main physical and human characteristics.

Pupils should be taught to:

- Identify and describe the geographical significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, and time zones (including day and night).
- Understand some of the reasons for geographical similarities and differences between countries.
- Describe how locations around the world are changing and explain some of the reasons for change.
- Describe geographical diversity across the world.
- Describe how countries and geographical regions are interconnected and interdependent.

Pupils should be taught to:

- Describe key aspects of:
 - **Physical geography** – Rivers
 - **human geography**, including: economic activity including trade links, and the distribution of natural resources including energy, food, minerals, and water supplies.
- Use the eight points of a compass, four-figure grid references, symbols and key to communicate knowledge of the United Kingdom and the wider world.

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

Pupils should be taught to:

- Develop and imaginatively extend ideas from starting points throughout the curriculum.
- Collect information, sketches and resources and present ideas imaginatively in a sketch book.
- Use the qualities of materials to enhance ideas.
- Spot the potential in unexpected results as work progresses.
- Comment on artworks with a fluent grasp of visual language.

Pupils should be taught to:

- Sketch (lightly) before painting to combine line and colour.
- Create a colour palette based upon colours observed in the natural or built world.
- Use the qualities of watercolour and acrylic paints to create visually interesting pieces.
- Combine colours, tones and tints to enhance the mood of a piece.
- Use brush techniques and the qualities of paint to create texture.
- Develop a personal style of painting, drawing upon ideas from other artists.

	<p>Drawing</p> <p>Sculpture</p> <p>Print</p> <p>Textiles</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Use a variety of techniques to add interesting effects (e.g. reflections, shadows, direction of sunlight). • Use a choice of techniques to depict movement, perspective, shadows and reflection. • Choose a style of drawing suitable for the work (e.g. realistic or impressionistic). • Use lines to represent movement. <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Show life-like qualities and real-life proportions or, if more abstract, provoke different interpretations. • Use tools to carve and add shapes, texture and pattern. • Combine visual and tactile qualities. • Use frameworks (such as wire or moulds) to provide stability and form. <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Build up layers of colours. • Create an accurate pattern, showing fine detail. • Use a range of visual elements to reflect the purpose of the work. <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Show precision in techniques. • Choose from a range of stitching techniques. • Combine previously learned techniques to create pieces.
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	<ul style="list-style-type: none"> • To take inspiration from the greats (classic and modern) 	<ul style="list-style-type: none"> • Give details (including own sketches) about the style of some notable artists, artisans and designers. • Show how the work of those studied was influential in both society and to other artists. • Create original pieces that show a range of influences and styles.
Design and Technology	<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>Design</p> <ul style="list-style-type: none"> • 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. <p>Make</p> <ul style="list-style-type: none"> • 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. <p>Evaluate</p> <ul style="list-style-type: none"> • 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.

- **To master practical skills**
Materials

Construction

Pupils should be taught to:

- Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).
- Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).

Pupils should be taught to:

- Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding).

	<p>Mechanics</p> <ul style="list-style-type: none"> • To design, make, evaluate and improve • To take inspiration from design throughout history 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Convert rotary motion to linear using cams. • Use innovative combinations of electronics (or computing) and mechanics in product designs. <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Design with the user in mind, motivated by the service a product will offer (rather than simply for profit). • Make products through stages of prototypes, making continual refinements. • Ensure products have a high quality finish, using art skills where appropriate. • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs. <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. • Create innovative designs that improve upon existing products. • Evaluate the design of products so as to suggest improvements to the user experience.
<p>Computing</p>	<ul style="list-style-type: none"> • To code <p>Motion</p> <p>Looks</p> <p>Sound</p> <p>Draw</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Set IF conditions for movements. Specify types of rotation giving the number of degrees. <ul style="list-style-type: none"> • Change the position of objects between screen layers (send to back, bring to front). <ul style="list-style-type: none"> • Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation. <ul style="list-style-type: none"> • Combine the use of pens with movement to create interesting effects.

	<p>Events</p> <p>Control</p> <p>Sensing</p> <p>Variables and lists</p> <p>Operators</p>	<ul style="list-style-type: none"> • Set events to control other events by 'broadcasting' information as a trigger. • Use IF THEN ELSE conditions to control events or objects. • Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions. • Use lists to create a set of variables. • Use the Boolean operators () < () () = () () > () ()and() ()or() Not() to define conditions. • Use the Reporter operators () + () () - () () * () () / () to perform calculations. Pick Random () to () Join () () Letter () of () Length of () () Mod () This reports the remainder after a division calculation Round () () of ()
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	<ul style="list-style-type: none"> • To connect • To communicate • To collect 	<ul style="list-style-type: none"> • Collaborate with others online on sites approved and moderated by teachers. • Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. • Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder. • Understand the effect of online comments and show responsibility and sensitivity when online. • Understand how simple networks are set up and used. • Choose the most suitable applications and devices for the purposes of communication. • Use many of the advanced features in order to create high quality, professional or efficient communications. • Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.
Religious Education	<p><i>Pupils should be given opportunities to:</i></p> <ul style="list-style-type: none"> • <i>Study the beliefs, festivals and celebrations of Christianity</i> • <i>Study at least two other religions in depth.</i> • <i>Study three of the major six religions not studied in depth in order to gain a brief outline</i> • <i>Study other religions of interest to pupils</i> 	<p>Pupils should be taught about:</p> <ul style="list-style-type: none"> • Islam - Muhammad <p>Pupils should be taught about:</p> <ul style="list-style-type: none"> • Christianity – Christmas Angels • Sacred Texts <p>Pupils should be taught about:</p> <ul style="list-style-type: none"> • Judaism – places of worship • Christianity – Jesus’ teaching and its impact on people • Hinduism – the concept of God • Hinduism – Worship at home • Christianity – Christian Creed
Music	<p><i>Pupils should be given opportunities to:</i></p> <ul style="list-style-type: none"> • <i>Play and perform in solo and ensemble contexts, using voice and playing instruments with increasing accuracy, control and expression.</i> • <i>Improvise and compose music using the inter-related</i> 	

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 stave 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.*

- **To perform**

- **To compose**

- **To transcribe**

Pupils should be taught to:

- Sing or play from memory with confidence.
- Perform solos or as part of an ensemble.
- Sing or play expressively and in tune.
- Hold a part within a round.
- Sing a harmony part confidently and accurately.
- Sustain a drone or a melodic ostinato to accompany singing.
- Perform with controlled breathing (voice) and skillful playing (instrument).

Pupils should be taught to:

- Create songs with verses and a chorus.
- Create rhythmic patterns with an awareness of timbre and duration.
- Combine a variety of musical devices, including melody, rhythm and chords.
- Thoughtfully select elements for a piece in order to gain a defined effect.
- Use drones and melodic ostinati (based on the pentatonic scale).
- Convey the relationship between the lyrics and the melody.
- Use digital technologies to compose, edit and refine pieces of music.

Pupils should be taught to:

- Use the standard musical notation of crotchet, minim and semibreve to indicate how many beats to play.

To describe music

- Read and create notes on the musical stave.
- Understand the purpose of the treble and bass clefs and use them in transcribing compositions.
- Understand and use the # (sharp) and ♭ (flat) symbols.
- Use and understand simple time signatures.

Pupils should be taught to:

- Choose from a wide range of musical vocabulary to accurately describe and appraise music including:

- pitch
- dynamics
- tempo
- timbre
- texture
- lyrics and melody
- sense of occasion
- expressive
- solo
- rounds
- harmonies
- accompaniments
- drones
- cyclic patterns
- combination of musical elements
- cultural context.
- Describe how lyrics often reflect the cultural context of music and have social meaning.