

Phase 3 National Curriculum Skills

Investigative Skills

<u>Planning</u>	<u>Obtaining and presenting evidence</u>	<u>Considering evidence and evaluating</u>
<ol style="list-style-type: none"> 1. To be able to ask questions that can be answered by different types of investigative activity and decide the best approach to use 2. To make and record accurate measurements and detailed observations, presenting them appropriately in the form of bar charts and line graphs (including the use of ICT). 3. Make a fair test or comparison by changing one factor and observing or measuring the effect while keeping other factors the same 4. To use technical language with increasing accuracy to explain results. 5. To analyse and interpret results. 	<ol style="list-style-type: none"> 1. Use simple equipment and materials appropriately and take action to control risks 2. To make and record accurate measurements and detailed observations, presenting them appropriately in the form of bar charts and line graphs (including the use of ICT). 3. Check observations and measurements by repeating them where appropriate 	<ol style="list-style-type: none"> 1. Make comparisons and identify simple patterns or associations in their own observations and measurements or other data 2. To analyse and interpret results. 3. To use technical language with increasing accuracy to explain results. 4. Decide whether these conclusions agree with any prediction made and/ or whether they enable further predictions to be made. 5. Use their scientific knowledge and understanding to explain observations, measurements or other data or conclusions 6. Review their work and the work of others and describe its significance and limitations.

SC2 Life Processes and Living Things

<u>Growth and nutrition</u>	<u>Variation and Classification</u>	<u>Living Things and their Environment including adaptation</u>
<ol style="list-style-type: none"> 1. That humans and some other animals have skeletons and muscles to support and protect their bodies and to help them to move 2. The effect of light, air, water and temperature on plant growth 3. The role of the leaf in producing new material for growth 4. That the root anchors the plant, and that water and minerals are taken in through the root and transported through the stem to other parts of the plant 	<ol style="list-style-type: none"> 1. To recognise similarities and differences between themselves and others, and to treat others with sensitivity. 1. To make and use keys 2. How locally occurring animals and plants can be identified and assigned to groups 3. That the variety of plants and animals makes it important to identify them and assign them to groups. 	<ol style="list-style-type: none"> 1. To apply scientific knowledge and understanding to grow healthy plants and explain how humans and other animals stay fit and healthy. 2. Ways in which living things and the environment need protection 3. About the different plants and animals found in different habitats 4. How animals and plants in two different habitats are suited to their environment <p><u>Feeding relationships</u></p> <ol style="list-style-type: none"> 1. To use food chains to show feeding relationships in a habitat
Note: objectives = Year 4 objectives = Year 5 objectives = Year 6 will cover all areas as revision objectives = all		
<ol style="list-style-type: none"> 1. About the parts of the flower [for example, stigma, stamen, petal, sepal] and their role in the life cycle of flowering plants, including pollination, seed formation, seed dispersal and germination. 2. That the heart acts as a pump to circulate the blood through vessels around the body, including through the lungs 6. About the effect of exercise and rest on pulse rate 		<p><u>Micro-organisms</u></p> <ol style="list-style-type: none"> 1. That micro-organisms are living organisms that are often too small to be seen, and that they may be beneficial [for example, in the breakdown of waste, in making bread] or harmful [for example, in causing disease, in causing food to go mouldy]. 2. To investigate, identify and explain the benefits of micro-organisms and the harm they can cause.

Phase 3 National Curriculum Skills

SC3 Materials and their Properties			
Changing Materials	Grouping and Classifying Materials	Separating Mixtures of Materials	
<p>1. To describe changes that occur when materials are mixed [for example, adding salt to water]</p> <p>2. To recognise differences between solids, liquids and gases, in terms of ease of flow and maintenance of shape and volume.</p> <p>3. About reversible changes, including dissolving, melting, boiling, condensing, freezing and evaporating.</p> <p>4. That non-reversible changes [for example, vinegar reacting with bicarbonate of soda, plaster of Paris with water] result in the formation of new materials that may be useful</p> <p>5. That burning materials [for example, wood, wax, natural gas] results in the formation of new materials and that this change is not usually reversible.</p>	<p>1. To recognise differences between solids, liquids and gases, in terms of ease of flow and maintenance of shape and volume.</p> <p>2. That some materials are better thermal insulators than others</p> <p>3. That some materials are better electrical conductors than others</p>	<p>1. That some solids [for example, salt, and sugar] dissolve in water to give solutions but some [for example, sand, chalk] do not.</p> <p>2. That some solids [for example, salt, sugar] dissolve in water to give solutions but some [for example, sand, chalk] do not</p> <p>3. How to separate insoluble solids from liquids by filtering</p> <p>4. How to recover dissolved solids by evaporating the liquid from the solution</p> <p>5. To use knowledge of solids, liquids and gases to decide how mixtures might be separated.</p>	
SC4 Physical Processes			
Electricity	Forces and Motion	Light and Sound	
<p>1. To construct circuits, incorporating a battery or power supply and a range of switches, to make electrical devices work [for example, buzzers, motors]</p> <p>2. How changing the number or type of components [for example, batteries, bulbs, wires] in a series circuit can make bulbs brighter or dimmer</p> <p>3. How to represent series circuits by drawing and conventional symbols, and how to construct series circuits on the basis of drawings and diagrams using conventional symbols.</p>	<p>1. About the forces of attraction and repulsion between magnets, and about the forces of attraction between magnets and magnetic materials.</p> <p>2. About friction, including air resistance, as a force that slows moving objects and may prevent objects from starting to move</p> <p>3. That when objects [for example, a spring, a table] are pushed or pulled, an opposing pull or push can be felt.</p> <p>4. That objects are pulled downwards because of the gravitational attraction between them and the Earth</p> <p>5. How to measure forces and identify the direction in which they act</p>	<p>1. That sounds are made when objects [for example, strings on musical instruments] vibrate but that vibrations are not always directly visible</p> <p>2. How to change the pitch and loudness of sounds produced by some vibrating objects [for example, a drum skin, a plucked string]</p> <p>3. That vibrations from sound sources require a medium [for example, metal, wood, glass, air] through which to travel to the ear.</p>	
	The Earth and Beyond		
	<p style="text-align: center;">The Sun, Earth and Moon</p> <p>1. That the Sun, Earth and Moon are approximately spherical</p> <p>2. How the position of the Sun appears to change during the day, and how shadows change as this happens</p> <p>3. How day and night are related to the spin of the Earth on its own axis</p> <p>4. That the Earth orbits the Sun once each year, and that the Moon takes approximately 28 days to orbit the Earth.</p>		
Science in the Modern World			
<p>1. To investigate and explain how scientific and technological developments affect the physical and living worlds</p> <p>2. To explore and explain practical ways in which science can contribute to a more sustainable future.</p>			

Phase Three - National Curriculum Skills
Humanities in the Modern World

Knowledge of the local context and the World in which we live

Learning should progress through the year groups. Year 4 need to focus on local studies relevant to the children's environments and draw comparisons with other contexts in the UK or abroad. Years 5 and 6 still needs to learn about the local environment; however they can also conduct a study of countries throughout the world and draw comparisons with the UK and their own context.

<u>Geographical enquiry and skills</u>	<u>Knowledge and understanding of places</u>	<u>Knowledge and understanding of patterns and processes</u>	<u>Knowledge and understanding of environmental change and sustainable development</u>
<p>1. Ask geographical questions i.e. what's the environment like?</p> <p>1. Analyse evidence and draw conclusions [for example, by comparing population data for two localities]</p> <p>2. Identify and explain different views that people, including themselves, hold about topical geographical issues [for example, views about plans to build an hotel in an overseas locality]</p> <p>3. Communicate in ways appropriate to the task and audience [for example, by writing to a newspaper about a local issue, using email to exchange information about the locality with another school].</p> <p>4. To use appropriate geographical vocabulary [for example, temperature, transport, industry]</p> <p>5. To use appropriate fieldwork techniques [for example, labeled field sketches] and instruments [for example, a rain gauge, a camera]</p> <p>6. To use atlases and globes, and maps and plans at a range of scales [for example, using contents, keys, grids]</p> <p>7. To use secondary sources of information, including aerial photographs [for example, stories, information texts, the internet, satellite images, photographs, videos]</p> <p>8. To draw plans and maps at a range of scales [for example, a sketch map of a locality]</p> <p>9. To use ICT to help in geographical investigations [for example, creating a data file to analyse fieldwork data]</p> <p>10. Decision-making skills [for example, deciding what measures are needed to improve safety in a local street].</p>	<p>1. To identify how and why places change [for example, through the closure of shops or building of new houses, through conservation projects] and how they may change in the future [for example, through an increase in traffic or an influx of tourists]</p> <p>2. To describe and explain how and why places are similar to and different from other places in the same country and elsewhere in the world [for example, comparing a village with a part of a city in the same country]</p> <p>3. To recognise how places fit within a wider geographical context [for example, as part of a bigger region or country] and are interdependent [for example, through the supply of goods, movements of people].</p> <p>4. To understand where significant places are located in the UK, Europe and the wider world.</p> <p>5. To explain why places are like they are i.e. weather conditions, local resources.</p>	<p>1. To understand how human patterns are influenced by both human and physical processes.</p> <p>2. To recognise a range of geographical processes that cause change in the physical and human world in different places.</p> <p>3. To know about the factors that affect weather and climate</p> <p>4. To recognise and explain patterns made by individual physical and human features in the environment (for example where frost forms in the playground, the distribution of hotels along a seafront).</p>	<p>1. Recognise how people can improve the environment [for example, by reclaiming derelict land] or damage it [for example, by polluting a river], and how decisions about places and environments affect the future quality of people's lives</p> <p>2. Recognise how and why people may seek to manage environments sustainably, and to identify opportunities for their own involvement [for example, taking part in a local conservation project].</p>

Key – Green font – Year 4
 Red font – Year's 5 & 6
 Black objectives - all
 Year 4 to use all of the objectives except red. Where children need further consolidation, refer to Phase 2 objectives. Years 5 and 6 consolidate if required using Year 4 objectives and then cover the rest as necessary.

Phase Three - National Curriculum Skills
Humanities in the Modern World

Historical Learning

Children's must have the opportunity to explore historical events within the UK and how this has impacted on the world in which we live today each academic year. Wider key events are should also be taught from ancient civilisations to the present day.

<u>Chronological Understanding</u>	<u>Knowledge and understanding the Past</u>	<u>Historical Enquiry</u>	<u>Understanding how History has shaped our life's today</u>
<p>1. Place events, people and changes into correct periods of time</p> <p>2. Use dates and vocabulary relating to the passing of time, including ancient, modern, BC, AD, century and decade.</p>	<p>1. About characteristic features of the periods and societies studied, including the ideas, beliefs, attitudes and experiences of men, women and children in the past</p> <p>2. About the social, cultural, religious and ethnic diversity of the societies studied, in Britain and the wider world</p> <p>3. To identify and describe reasons for, and results of, historical events, situations, and changes in the periods studied</p> <p>4. To describe and make links between the main events, situations and changes within and across the different periods and societies studied.</p>	<p>1. Pupils should be taught to recognise that the past is represented and interpreted in different ways, and to give reasons for this.</p> <p>2. How to find out about the events studied from an appropriate range of sources of information, including ICT-based sources [for example, documents, printed sources, CD-ROMS, databases, pictures and photographs, music, artifacts, historic buildings and visits to museums, galleries and sites]</p> <p>3. To ask and answer questions, and to select and record information relevant to the focus of the enquiry.</p> <p>4. Recall, select and organise historical information</p> <p>5. Use dates and historical vocabulary to describe the periods studied</p> <p>6. Communicate their knowledge and understanding of history in a variety of ways [for example, drawing, writing, by using ICT].</p>	<p>1. How significant events, developments or individuals and groups have influenced their locality, the UK and beyond n the recent and distant past.</p> <p>2. About the movement and settlement of people in different periods of British History and the impact these have had on the way we live our life's today</p> <p>3. The characteristic features of, changes within two key periods of history, that was significant to the locality and the UK.</p> <p>4. The effects of economic, technological and scientific developments on the UK and the wider world over time.</p>

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Phase Three - National Curriculum Skills

Progressive Art Skills

It is expected that each year group will complete 2 large scale projects sometime during the year. Please ensure that the table is completed below, to enable continuity and progression in later year groups.

Progression in Drawing

Drawing should be the starting point for any unit of work

Children should be able to;

- Use a view finder to select the most interesting arrangement of shapes, forms. Focus on relative proportions.
- Enlarge or combine sketches.
- Draw from first hand observations, making notes about distinctive features.
- Complete a series of small studies from observations and produce thumb nail sketches.
- Develop drawings using overlapping lines/ shapes.
- Make drawings of figures.
- Produce symmetrical and asymmetrical compositions.
- Perspective drawing – receding houses and roads, 3D shapes or lettering etc.
- Work on a variety of scales and collaboratively.

In Phase Three opportunities also need to be provided for children to experience the following at least once in the Phase

Please ensure the skills are taken from the objectives below.

- Collage/montage
- Clay
- 3D sculpture/models –reclaimed materials , papier mache, mod roc
- Textile –printing, batik, silk painting and embellishing (sticking or sewing)
- Photography

<p><u>Tone and line</u></p> <ul style="list-style-type: none"> • Create lines which show mood (happy, sad, angry etc). • Explore different line qualities through brushes, sponge, cloth etc. • Shading – cross hatching, pencil pressures and tones, use of rubbers. • Show tone using black, grey, white (Charcoal, chalk, pastels). 	<p><u>Colour</u></p> <ul style="list-style-type: none"> • Secondary to tertiary colours • Colours relating to mood and feelings • Camouflage • Complementary colours • Extend Shades and pastels • Tone(adding black and grey) to colours • Mixing different skin colours. 	<p><u>Pattern</u></p> <ul style="list-style-type: none"> • Patterns that express mood. • Link to tessellation, geometry, op art – use of ICT • Patterns for different purposes; book covers, clothes, pots etc 	<p><u>Texture</u></p> <ul style="list-style-type: none"> • Use a variety of techniques to create texture. (sawdust, glue, sand) • Embellish pictures by adding and sticking materials, drawing on top with different media, weaving, cutting, printing, appliqué
<p><u>Painting</u></p> <ul style="list-style-type: none"> • Investigate painting onto different surfaces / coloured papers • Watercolours – transparency • Printing onto paint • Over painting /layers • Contrasting thickness/texture of paint • Pointillism (dots) • Acrylic paint • Ink • Wax resist paintings 	<p><u>Printing</u></p> <ul style="list-style-type: none"> • relief and press print on to variety of surfaces- fabric/papers • Repeat patterns using 2/3 colours. • Over print using different colours/explore colour mixing/ layering. • Combination of different printing objects/methods • Screen printing 	<p><u>Form</u></p> <ul style="list-style-type: none"> • Make structures and cover them eg. papier mache and decoration. • Use a variety of joining techniques – using slip in clay, Tabs, hinges on models etc • Add detail by relief and cutting out. 	<p><u>Artists</u></p> <ul style="list-style-type: none"> • Look at the work of at least 3 different artists throughout the year including art from different countries and cultures. <p>-Discuss how works of art are produced – form, materials, colours and techniques used.</p>

Phase Three - National Curriculum Skills

Religious Education

The children's learning of this area is developed through R.E days, which encourage pupils to reflect on their understanding and extend their learning. There is the expectation that all year groups will dedicate a day each term to R.E (three days a year).

Within their learning, children should have opportunity to...

1. To describe and discuss some key aspects of the nature of religion and belief

This could include:

- Questions that beliefs ask and answer
- Key teachings and sources of authority
- The people, stories and traditions that influence the beliefs and values of followers

2. To investigate the significance and impact of religion and belief in some local, national and global communities

For example, this could include:

- Why people give to charity
- Why people follow a divine commandment

3. To consider the meaning of a range of forms of religious expression, identifying why they are important in religious practice and noting links between them.

Forms of expressing meaning could include:

- Indian Dance
- Buddhist meditation
- Arab calligraphy
- Sikh sewa (service)

Year Four	Year Five	Year Six
The significance of the Five Pillars	Learning about Sikhism	Learning about Hinduism
The importance of Ramadan	Vaisakh (Celebrated from April onwards)	Diwali
Comparing faiths – Christianity and Islam	Understanding why people give to charities and the good they do. Focus on Christian charities such as Salvation Army / Christian Aid – Perhaps look at getting a visitor?	Charity in our community. Why people donate to others. Explore compassion empathy etc. Homelessness etc.