

Year 6
Age Related Expectations: Science and Foundation Subjects



This document details the end of Year Expectations for Science and Foundation Subjects.

Termly topic planning is developed as follows

Reading & Writing	Core skills Skills for life and learning, these subjects are taught as discrete subjects, but linked where appropriately as part of a broader theme
Maths	
Science	

Science	Topic Drivers A topic will usually be ‘driven’ by a depth study focusing on one subject. However, other links between skills will be made where appropriate.
History	
Geography	

Computing	Enrichment Subjects Subjects complement topics where appropriate and provide wider opportunities for children
Art	

<table border="1"> <tr><td>Design Technology</td></tr> <tr><td>Music</td></tr> <tr><td>French</td></tr> <tr><td>RE</td></tr> </table>	Design Technology	Music	French	RE				
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Provide opportunities for personal and collective wellbeing and development								
Science	<p>Explores and talks about their ideas.</p> <ul style="list-style-type: none"> • Asks their own questions about scientific phenomena. • Plans different types of scientific enquiries to answer questions. • (Including: fair tests, pattern seeking tests, research, observation over time, identify and classify tests.) • Lists all equipment needed. • Decides on what data to collect and how much is needed. • Makes predictions based on scientific knowledge. <p>Do and record</p> <ul style="list-style-type: none"> • Takes measurements using a range of scientific equipment with accuracy and precision. Reads scales with accuracy. Uses fractions, mixed units and decimals to one place. • Controls variables where necessary. 							

	<ul style="list-style-type: none"> • Takes repeat readings when appropriate and finds averages. • Records data and results of increasing complexity using: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Bar graphs have more complex scales involving decimals and fractions, e.g. 1:2.5. • Uses a wide range of secondary sources to find out things (books, photographs, internet, video). <p>Review</p> <ul style="list-style-type: none"> • Uses test results to make predictions to set up further comparative and fair tests. • Reports and presents findings from enquiries in oral and written forms such as displays and other presentations. • Draws conclusions based on their data and observations. • Identifies causal relationships. • Identifies reliability of results – degree of trust in results. • Uses scientific knowledge and understanding to explain their findings. • Identifies scientific evidence that has been used to support or refute ideas of arguments. • • Reads, spells and pronounces scientific vocabulary correctly.
History	<ul style="list-style-type: none"> • place features of events and people from past societies and periods in a chronological framework • summarise the main events from a specific period in history, explaining the order in which key events happened • explain how Britain has had a major influence on world history • describe what Britain may have learnt from other countries and civilisations in the past • recognise and describe differences and similarities / changes and continuity between different periods in history • accurately describe key events from Britain's past using a range of evidence from different sources • investigate how an aspect or theme has changed over time in the local area and offer their views about this change
Geography	<ul style="list-style-type: none"> • have an understanding of the British Isles (i.e. the physical geography, including its surrounding islands) and the United Kingdom (i.e. the political geography) and explain the differences • name and locate UK, European and international locations using an atlas, map and digital mapping, with awareness of land-use patterns over time

	<ul style="list-style-type: none"> • know the position and significance of latitude and longitude • explain time zones (including day and night) • compare a region in the UK with a region in North or South America • use maps, aerial photos, plans and web resources to describe what a locality might be like • show understanding of human geography (e.g. economic activity, trade links, distribution of natural resources) and physical geography (e.g. climate zones, biomes, vegetation belts) • use four and six figure grid references and OS maps to answer questions • use fieldwork to answer questions about the local area using a range of methods • with regard to the main ethnic groups in the UK in contrast to Trinity to be aware of reasons why people may have moved to the UK
Computing	<ul style="list-style-type: none"> • combine sequences of instructions and procedures to control a device e.g. turn it on and off • design algorithms that use repetition and make modifications to improve these • to make accurate predictions, explaining why he/she believes something will happen • detect and correct errors in increasingly complex algorithms • select, use and combine software on a range of digital devices increasingly effectively • use a range of technology for a specific project (e.g. create and use programs and content) • analyse and evaluate information and make improvements. • use the internet and other technology safely and critically • recognise what is personal information and keep it private • know what to do if they are concerned when they use the internet and other technology • recognise acceptable and unacceptable behaviour when using the internet and other technology • use technology appropriately, effectively and efficiently
Art	<ul style="list-style-type: none"> • with increasing control to explore ideas and collect visual and other information to help them develop their work (including experimenting with different artistic styles) • investigate and use a variety of materials and processes (e.g. drawing, painting, 3D work, collage, printing, e-art, textiles) to communicate ideas and make images / artefacts with greater skill and control • combine and organise visual and tactile elements (e.g. when using colour, shade, pattern, line, texture, form, shape, composition, scale, proportion and tone) to suit their intentions

	<ul style="list-style-type: none"> • record their ideas, marks, experiments and examples in a sketch book, adapting and improving what they do • design and make images / artefacts for different purposes • adapt and improve their own work to realise their intentions • comment on similarities and differences between pieces of art, including art from different periods and cultures • show increasing awareness of art and design in the world around them e.g. architecture, graphic design
Design Technology	<ul style="list-style-type: none"> • research and develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose, aimed at particular individuals and groups • generate, develop and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes and computer-aided design • select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining, finishing) • from and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their functional properties and aesthetic qualities • 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 change the world • apply their understanding of computing to program, monitor and control their products • understand and use mechanical systems in their products (e.g. gears, pulleys, cams, levers and linkages) • show they have knowledge, skills and understanding at an age appropriate level: diet; food origins; food choice; food labelling; food safety • When handling food be able to cut, weigh, measure, bake and use of skills at an age-appropriate level
Music	<ul style="list-style-type: none"> • perform from memory and from notation showing awareness of their own contribution (e.g. leading others, taking a solo part and/or providing rhythmic support) • improvise melodic and rhythmic phrases as part of a group performance • compose by developing ideas, beginning to use musical devices (e.g. melody, rhythms, chords, structures) • review and evaluate different music, including music from different periods, cultures and from great composers, with reference to specific musical features e.g. pitch, tempo, structure

	<ul style="list-style-type: none"> • show increasing awareness of music in the world around them e.g. advertising, dramas • evaluate how the venue, occasion and purpose affects the way a piece of music is created
Modern Foreign Languages	<ul style="list-style-type: none"> • speak and listen effectively in a range of contexts (i.e. listen attentively with understanding; engage in conversations; speak in sentences; use correct pronunciation) • read carefully and show understanding of words, phrases and simple writing • begin to write with accuracy (i.e. phrases from memory; adapting phrases to create new meaning with a growing awareness of grammar) • appreciate and make links with patterns and sounds in songs and rhymes • broaden their vocabulary and develop their ability to understand new words
PE	<ul style="list-style-type: none"> • remember, refine and repeat sequences with a sense of style and artistic intention • constantly choose and develop a range of movement patterns • practise and perform, with control and accuracy, a range of actions and balances in sequences • link actions and balances together so that they flow, using different compositional ideas • consistently select the right shots or tactics to be successful in a game • choose and use combinations of skills with confidence, accuracy and consistency in most games • demonstrate higher levels of strength, stamina and fluidity of movement in a variety of activities • identify strengths and weaknesses in own and others' work, occasionally leading activities • help others to improve performance through demonstration and using appropriate words or tips • swim at least 25m • use a range of strokes effectively • warm up independently and effectively