

Year 5
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"> • draw a timeline with different time periods outlined which shows different information such as periods of history, when famous people lived, etc. • create timelines which outline the development of specific features, such as medicine, weaponry, transport etc. • understand the differences between AD and BC • make comparisons between historical periods, explaining things that have changed and things which have stayed the same • Is aware of the immigration and emigration which has led to the multi-cultural society of today's UK • have a good understanding as to how a particular theme (e.g. entertainment, houses and homes or medicine) has changed over the years • investigate how an aspect or theme has changed over time in the local area
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) • name and locate UK counties, cities and other locations using an atlas, map and digital mapping, with

	<ul style="list-style-type: none"> • awareness of land-use patterns over time • know the position and significance of latitude and longitude • be aware of different time zones • compare a region in the UK with a region in North or South America • show some 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 • use fieldwork to answer questions about the local area using a range of methods
Computing	<ul style="list-style-type: none"> • combine instructions and procedures to control a device e.g. turn it on and off • design algorithms that use repetition • 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"> • explore ideas and collect visual and other information to help them develop their work (including experimenting with different artistic styles) • 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 • 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

	<ul style="list-style-type: none"> • 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 some awareness of design in the world around them e.g. architecture, graphic design
Design Technology	<ul style="list-style-type: none"> • research design criteria to inform the design of functional, appealing products that are fit for purpose, aimed at a particular audience • generate, develop and communicate their ideas through discussion, annotated sketches and cross-sectional diagrams • select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining, finishing) • select from and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their functional properties • investigate and analyse existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how individuals in design and technology have helped make our lives easier • begin to use mechanical systems in their products (e.g. gears, pulleys, cams, levers and linkages) • begin to apply their understanding of computing to program their products • When learning about food and nutrition, can your child 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"> • performing by ear and from notations maintain their own part • improvise melodic and rhythmic phrases • compose by developing ideas within musical structures • review and evaluate different music, including music from different periods and cultures, with reference to specific musical features e.g. pitch, tempo, structure • show some awareness of music in the world around them e.g. advertising, film trailers • contrast the work of famous composers and show preferences

<p>Modern Foreign Languages</p>	<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; 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
<p>PE</p>	<ul style="list-style-type: none"> • perform to an accompaniment expressively • show clarity, fluency, accuracy and consistency • combine and perform actions, shapes and balances • create more complex sequences that demonstrate control, agility and flexibility • begin to consistently select the right shots or tactics to be successful in a game • use a variety of techniques to pass, dribble, shoot and hit • say why activity is good for health, fitness and well-being • warm up independently • use appropriate words when evaluating and improving own and others' work