

SCIENCE

Pupils should be taught to:	Year 5	Aut	Spr	Sum
 planning different types of scientific enquiries to answer questions, including recognizing and controlling variables where necessary. 				
 taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. 				
 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scattergraphs, bar and line graphs. 				
 using test results to make predictions to set up further comparative and fair tests. 				
 reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. 				
 identifying scientific evidence that has been used to support or refute ideas or arguments. 				
 describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. 				
describe the life process of reproduction in some plants and animals.				
 describe the changes as humans develop to old age. 				
 compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. 				
 know that 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 and the action of acid on bicarbonate of soda. 				
 describe the movement of the Earth, and other planets, relative to the Sun in the solar system. 				
 describe the movement of the Moon relative to the Earth. 				
 describe the Sun, Earth and Moon as approximately spherical bodies. 				
 use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. 				
 explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. 				
 identify the effects of air resistance, water resistance and friction, that act between moving surfaces. 				
 recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 				



<u>Art & Design</u>

Pupils should be taught to:	Year 5	Aut	Spr	Sum
 to create sketch books to record their observations and use them to review and revisit ideas. 				
 to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] 				
 about great artists, architects and designers in history. 				



<u>Computing</u>

Pupils should be taught to:	Year 5	Aut	Spr	Sum
 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts 				
 use sequence, selection, and repetition in programs; work with variables and various forms of input and output. 				
 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 				
 understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. 				
 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. 				
 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. 				
 use technology safely, respectfully and responsibly; recognize acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 				



Design&Technology

Pupils should be taught to:	Year 5	Aut	Spr	Sum
 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. 				
 select from and use a wider range of tools and equipment to perform practical tasks [for example, 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. 				
 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. 				
 apply their understanding of how to strengthen, stiffen and reinforce more complex structures. 				
 understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] 				
 understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] 				
 apply their understanding of computing to program, monitor and control their products. 				



Cooking & Nutrition

Pupils should betaughtto:	Year 5	Aut	Spr	Sum
 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. 				



<u>Geography</u>

Pupils should be taught to:	Year 5	Aut	Spr	Sum
 locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities. 				
 name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time. 				
 understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America. 				
 physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle. 				
 use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied. 				
 use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps)to build their knowledge of the United Kingdom and the wider world. 				
 usefield work to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies. 				



<u>History</u>

Pupils should be taught about:	Year 5	Aut	Spr	Sum
 the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor. 				
a local history study.				
 a study of an aspect of British history that extends pupils' chronological knowledge beyond 1066. 				
 a non-European society that provides contrasts with British history-one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (WestAfrica) c. AD 900-1300. 				



<u>Language</u>

Pupils should be taught to:	Year 5	Aut	Spr	Sum
 listen attentively to spoken language and show understanding by joining in and responding. 				
 explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words. 				
 engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help* 				
• speak in sentences, using familiar vocabulary, phrases and basic language structures.				
 develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases* 				
 present ideas and information orally to a range of audiences* 				
 read carefully and show understanding of words, phrases and simple writing. 				
 appreciate stories, songs, poems and rhymes in the language. 				
 broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary. 				
write phrases from memory, and adapt these to create new sentences, to express				
ideas clearly.				
 describe people, places, things and actions orally*and in writing. 				
 understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English. 				



<u>Music</u>

Pupils should be taught to:	Year 5	Aut	Spr	Sum
 play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression. 				
 improvise and compose music for a range of purposes using the inter-related dimensions of music. 				
 listen with attention to detail and recall sounds with increasing aural memory. 				
 use and understand staff and other musical notations. 				
 appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians. 				
 develop an understanding of the history of music. 				



<u>PE</u>

Pupils should be taught to:	Year 5	Aut	Spr	Sum
 swim competently, confidently and proficiently over a distance of at least 25 metres. 				
 use a range of strokes effectively [for example, frontcrawl, backstroke and breaststroke]. 				
 perform safe self-rescue in different water-based situations. 				
 use running, jumping, throwing and catching in isolation and in combination. 				
 play competitive games, modified where appropriate [forexample,badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending. 				
 develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics] 				
 perform dances using a range of movement patterns. 				
 take part in outdoor and adventurous activity challenges both individually and within a team. 				
 compare their performances with previous ones and demonstrate improvement to achieve their personal best. 				

KeyStage2CurriculumOverview