

SCHEMES OF WORK: OTHER SUBJECTS

MATHS			
	YEAR 5	YEAR 6	KS3
Number	Solve problems involving number up to three decimal places		understand and use place value for decimals, measures and integers of any size
			use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative
			use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative
Measurement	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	change freely between related standard units [for example time, length, area, volume/capacity, mass]
			convert between miles and kilometres
		use standard units of mass, length, time, money and other measures, including with decimal quantities	
			use compound units such as speed, unit pricing and density to solve problems
Statistics	complete, read and interpret information in tables, including timetables.		
Fractions		recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	express one quantity as a fraction of another, where the fraction is less than 1 and greater than 1
			use ratio notation, including reduction to simplest form
			divide a given quantity into two parts in a given part:part or part:whole

			ratio; express the division of a quantity into two parts as a ratio
			understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction
			relate the language of ratios and the associated calculations to the arithmetic of fractions and to linear functions

SCIENCE						
	YEAR 3	YEAR 4	YEAR 5	YEAR 6	KS3	
Science	asking relevant questions and using different types of scientific enquiries to answer them		taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate		ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience	
	gathering, recording, classifying and presenting data in a variety of ways to help in answering questions		recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs		make predictions using scientific knowledge and understanding	
	recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables		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			
	reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions					
			Earth & space			
Chemistry	Compare and group together different kinds of rocks on the basis of their appearance and simple physical				the rock cycle and the formation of igneous, sedimentary and metamorphic rocks	

	properties				
Biology		recognise that living things can be grouped in a variety of ways		describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals	
		explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment		give reasons for classifying plants and animals based on specific characteristics.	
Physics					other processes that involve energy transfer: changing motion, dropping an object, completing an electrical circuit, stretching a spring, metabolism of food, burning fuels.
					the representation of a journey on a distance-time graph
					forces as pushes or pulls, arising from the interaction between two objects
					using force arrows in diagrams, adding forces in one dimension, balanced and unbalanced forces
					forces being needed to cause objects to

			stop or start moving, or to change their speed or direction of motion (qualitative only)
			Earth's magnetism, compass and navigation

ART & DESIGN	
KS2	KS3
create sketch books to record their observations and use them to review and revisit ideas	use a range of techniques to record their observations in sketchbooks, journals and other media as a basis for exploring their ideas
improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]	use a range of techniques and media, including painting
	increase their proficiency in the handling of different materials
	analyse and evaluate their own work, and that of others, in order to strengthen the visual impact or applications of their work
great artists, architects and designers in history	the history of art, craft, design and architecture, including periods, styles and major movements from ancient times up to the present day.

CITIZENSHIP	
KS2	KS3
	the development of the political system of democratic government in the United Kingdom, including the roles of citizens, Parliament and the monarch
	the roles played by public institutions and voluntary groups in society, and the ways in which citizens work together to improve their communities, including opportunities to participate in school-based activities
	the functions and uses of money, the importance and practice of budgeting, and managing risk.

COMPUTING	
KS2	KS3
use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users
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	create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability

DESIGN & TECHNOLOGY	
KS2	KS3
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	use research and exploration, such as the study of different cultures, to identify and understand user needs
generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	identify and solve their own design problems and understand how to reformulate problems given to them
	develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations
	develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools
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 specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture
	select from and use a wider, more complex range of materials,

	components and ingredients, taking into account their properties
understand how key events and individuals in design and technology have helped shape the world	analyse the work of past and present professionals and others to develop and broaden their understanding
	test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups
	understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists
	understand and use the properties of materials and the performance of structural elements to achieve functioning solutions
understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	understand how more advanced mechanical systems used in their products enable changes in movement and force

COOKERY & NUTRITION	
KS2	KS3
understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	understand the source, seasonality and characteristics of a broad range of ingredients.

GEOGRAPHY		
	KS2	KS3
Locational knowledge	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	

	identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)	
Place knowledge	understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom	
Human & physical	physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle	understand, through the use of detailed place-based exemplars at a variety of scales, the key processes in human geography relating to: population and urbanisation; international development; economic activity in the primary, secondary, tertiary and quaternary sectors; and the use of natural resources
	human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water	understand, through the use of detailed place-based exemplars at a variety of scales, the key processes in physical geography relating to: geological timescales and plate tectonics; rocks, weathering and soils; weather and climate, including the change in climate from the Ice Age to the present; and glaciation, hydrology and coasts
Skills & fieldwork	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	build on their knowledge of globes, maps and atlases and apply and develop this knowledge routinely in the classroom and in the field
		interpret Ordnance Survey maps in the classroom and the field, including using grid references and scale, topographical and other thematic mapping, and aerial and satellite photographs

HISTORY		
KS2	KS3	
a local history study	A local history study	
changes in Britain from the Stone Age to the Iron Age	Britain's changing landscape from the Iron Age to the present	
	the study of an aspect or theme in British history that consolidates and extends pupils' chronological knowledge from before 1066	
a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066	Medieval society, economy and culture: for example, feudalism, religion in daily life (parishes, monasteries, abbeys), farming, trade and towns (especially the wool trade), art, architecture and literature	
	1509 – 1745 period history	the first colony in America and first contact with India
		society, economy and culture across the period: for example, work and leisure in town and country, religion and superstition in daily life, theatre, art, music and literature
	Britain, 1745-1901	ideas, political power, industry and empire:
		the Enlightenment in Europe and Britain, with links back to 17th-Century thinkers and scientists and the founding of the Royal Society
		the Seven Years War and The American War of Independence
		the French Revolutionary wars
		Britain as the first industrial nation – the impact on society
		party politics, extension of the franchise and

		social reform
		Ireland and Home Rule
		Darwin's 'On The Origin of Species'

MUSIC	
KS2	KS3
improvise and compose music for a range of purposes using the inter-related dimensions of music	play and perform confidently in a range of solo and ensemble contexts using their voice, playing instruments musically, fluently and with accuracy and expression
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; and extend and develop musical ideas by drawing on a range of musical structures, styles, genres and traditions
appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians	listen with increasing discrimination to a wide range of music from great composers and musicians
develop an understanding of the history of music	develop a deepening understanding of the music that they perform and to which they listen, and its history.

PHYSICAL EDUCATION	
KS2	KS3
develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]	
take part in outdoor and adventurous activity challenges both individually and within a team	take part in outdoor and adventurous activities which present intellectual and physical challenges and be encouraged to work in a team, building on trust and developing skills to solve problems, either individually or as a group