



Upper Key Stage 2 Curriculum Grids

UKS2

History	
Skills	<ul style="list-style-type: none"> • To understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance. • To make connections, draw contrasts, analyse trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses. • To understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims, and discern how and why contrasting arguments and interpretations of the past have been constructed. • To gain historical perspective by placing their growing knowledge into different contexts. • To understand the connections between local, regional, national and international history; between cultural, economic, military, political, religious and social history; and between short- and long-term timescales.
By the end of Year 5, the children will know...	By the end of Year 6, the children will know...
<ul style="list-style-type: none"> • about the Anglo-Saxon invasions • about Anglo-Saxon settlements and the way they lived, including hierarchical features • about the link between Anglo-Saxons and Christianity • how the Anglo-Saxons brought law and order to Britain • about Alfred the Great • about Anglo-Saxons' art and symbols • about the Scots invasion from Ireland to the North of England • about Britain's part in the slave trade • what slave auctions were like • about the horrific conditions on board slave ships • about the death rate during slaves' transportation to America • that the majority of slaves came from Africa • what life was like for most of the slaves • about the impact of slavery on the world today 	<ul style="list-style-type: none"> • where the Middle East is and particularly, Baghdad • that the house of wisdom was similar to a modern university or library • that the Islamic civilization around 900AD was known as the Golden age because of the positive things they brought the world • that Islamic civilization was the first to introduce hospitals to the world and was advanced where medicine and education was concerned • about the Prophet Muhammad and know key facts about his life • how and why the Golden Age came to an end • why the Vikings came to Britain • where the Vikings first landed in Britain • where the Vikings came from • that the Vikings were formidable warriors • about what life was like for Viking children • why the Viking long ships were ideal for invading other lands • about Viking food and weapons and about the misconceptions there are about the Vikings

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Geography	
Skills	<ul style="list-style-type: none"> • To investigate the location and characteristics of a range of the world’s most significant human and physical features. • To investigate 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 in North or South America • To collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes. • To investigate and explain physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes. • To investigate and explain 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. • To use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied. • To interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs and Geographical Information Systems (GIS). • To communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length.
By the end of Year 5, the children will know...	By the end of Year 6, the children will know...
<ul style="list-style-type: none"> • where many of the world’s rainforest are situated • about the main features of a rainforest • the terms: emergent layer, canopy, understory and forest floor • about the endangered animals in the rainforests • about deforestation and the arguments for and against deforestation • where the Amazon is located • about the people that live in the Amazon rainforest and about some of the unique plants there 	<ul style="list-style-type: none"> • the names of many South American countries • why Brazil has a potentially thriving economy • the features of Brazil, including its capital, population and dominant language • about issues such as the street children in Brazil • about the climate of Brazil and how it compares to the UK • what natural resources Brazil has, including fruit • basic information about at least four other South American countries

Science	
Skills	<ul style="list-style-type: none"> • Planning different types of scientific enquiries, including recognising and controlling variables where necessary to answer questions. • Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate. • Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, explanations of the degree of trust in results, in oral and written forms such as displays and other presentations. • Using test results to make predictions to set up further comparative and fair tests. Identify scientific evidence that has been used to support or refute ideas or arguments.. • Recording data of increasing complexity using scientific diagrams and labels, classification keys, tables scatter graphs, bar and line graphs. • Use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. • Evaluate how well keys and databases work and make changes to improve them. • Explain why it is important to classify and why it is useful to scientists • Plan what to test, how to test and collect evidence in order to classify. • Ask a variety of types of scientific questions – choose the most appropriate scientific enquiry method to answer a question and outline the method
By the end of Year 5, the children will know...	By the end of Year 6, the children will know...
<p>All Living Things</p> <ul style="list-style-type: none"> • the differences in the life cycles of a mammal, an amphibian, an insect and a bird. • the life process of reproduction in some plants and animals. • the changes as humans develop to old age. <p>Properties of Everyday Materials</p> <ul style="list-style-type: none"> • how to 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. • that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. 	<p>Living things and their habitats</p> <ul style="list-style-type: none"> • 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. • reasons for classifying plants and animals based on specific characteristics. <p>All Living Things</p> <ul style="list-style-type: none"> • how to identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. • the impact of diet, exercise, drugs and lifestyle on the way their bodies function. describe the ways in which nutrients and water are transported within animals, including humans..

- about solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
- how to give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
- how to demonstrate that dissolving, mixing and changes of state are reversible changes.
- 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.

Forces

- that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- the effects of air resistance, water resistance and friction, that act between moving surfaces.
- that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

Earth and Space

- that the movement of the Earth, and other planets, relative to the Sun in the solar system.
- that the movement of the Moon relative to the Earth.
- that the Sun, Earth and Moon as approximately spherical bodies.
- that the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Evolution and Inheritance

- that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
- that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
- how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Light

- that light appears to travel in straight lines.
- that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.
- that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
- that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

Electricity

- that the brightness of a lamp or the volume of a buzzer changes with the number and voltage of cells used in the circuit.
- how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.
- how to represent a simple circuit in a diagram.

UKS2

Art & DT	
Skills	<p>Art</p> <ul style="list-style-type: none"> • To experiment, invent and create works of art, craft and design. • To think critically and develop a more rigorous understanding of art and design. • To develop techniques, including control and use of materials. • To develop creativity, experimentation and an increasing awareness of different kinds of art, craft and design. • To record observations and use them to review and revisit ideas. • To improve mastery of art and design techniques, including drawing, painting and sculpture with a range of materials. <p>Design Technology</p> <ul style="list-style-type: none"> • To 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. • To generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. • To 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. • To investigate and analyse a range of existing products. • To evaluate ideas and products against design criteria and consider the views of others to improve their work. • To apply techniques to cook safely, affordably and well.
<p>By the end of KS2, the children will know...</p> <p>Art</p> <ul style="list-style-type: none"> • How art and design both reflect and shape our history contribute to the culture, creativity and wealth of our nation. • About great artists and architecture. <p>Design</p> <ul style="list-style-type: none"> • How key events and individuals in design and technology have helped shape the world. • How to strengthen, stiffen and reinforce more complex structures. • How to use mechanical systems in their products. • How to use electrical systems in their products. • How to program, monitor and control products. • The principles of a healthy and varied diet. • About seasonality and where and how a variety of ingredients are grown, reared, caught and processed. 	

Computing	
Skills	<ul style="list-style-type: none"> • To use the keyboard confidently to type at a suitable pace. • To use common keyboard shortcuts. • To create and use a strong password where appropriate. • To organise files effectively using folders. • To use more advanced searching techniques when using a search engine. • To understand that different devices can have different operating systems, and can give examples, e.g. Windows, iOS, Android. • To understand the main functions of an operating system. • To recognise common file types and extensions. • To recognise common file types and extensions.
By the end of Year 5, the children will know...	By the end of Year 6, the children will know...
<p>COMMUNICATION: TEXT & IMAGES & MULTIMEDIA</p> <ul style="list-style-type: none"> • how to select, combine and use Internet services to fulfil a purpose. • their audience when designing and creating digital content. • the difference between the Internet and the World Wide Web. • the benefits of using technology to collaborate with others. • a range of Internet services, e.g. email, VOIP (Voice Over Internet Protocol e.g. Skype, FaceTime), World Wide Web, and what they do. • how to responsibly use online services and technologies, and know a range of ways to report concerns. • how to critically evaluate websites for reliability of information and authenticity. • how to identify and use appropriate hardware and software to fulfil a specific task. • how to remix and edit a range of existing and their own media to create content. 	<p>COMMUNICATION: TEXT & IMAGES & MULTIMEDIA</p> <ul style="list-style-type: none"> • how to create a success criteria for creating digital content for a given purpose and audience. • how to evaluate their own content against success criteria and make improvements accordingly. • common file types and extensions. • why films have certain ratings. <p>UNDERSTANDING & SHARING DATA</p> <ul style="list-style-type: none"> • how to create a simple branching database to identify a set of objects • that the questions you ask when collecting data are important. • how to evaluate a given branching database and suggest improvements. • how different formats e.g. text, images, audio, communicate information and their benefits.

- where to find copyright free images and audio, and why this is important.

UNDERSTANDING & SHARING DATA

- the difference between physical, mobile and wireless networks.
- the difference between the World Wide Web and the Internet.
- the basics of how search engines work, and that different search engines may give different results.
- how to perform complex searches for information using advanced settings in search engines.
- how to critically evaluate websites for reliability of information and authenticity.
- how to become increasingly savvy online consumers: know that algorithms are used to track online activities with a view to targeting advertising and information.

COMPUTATIONAL THINKING & PROGRAMMING

- what will happen in a program or algorithm (e.g. change of output) when the input changes (e.g. sensor, data or event).
- how to create programs including repeat until loops and recognise variables in a program.
- how to create simple variables, e.g. to keep score or remove lives in a game and understand the difference and use if... then...and if... then... else...statements.

- that our personal information belongs to us and why we shouldn't share it with everybody
- who to tell if concerned about content or contact online.

COMPUTATIONAL THINKING & PROGRAMMING

- how to create simple variables, e.g. to keep score or remove lives in a game.
- the difference between, and use if... then... and if... then... else... statements.
- how to combine a variable with relational operators (< = >) to determine when a program changes.
- how to design a physical computing system that uses sensors, e.g. using a flow chart.
- how to recognise the audience when designing and creating digital content.
- how to evaluate their own content against success criteria and make improvements accordingly.