



Lower Key Stage 2 Curriculum Grids

LKS2

History	
Skills	<ul style="list-style-type: none"> • understand the history of the British Isles as a coherent, chronological narrative, from the earliest times to the present day: how people’s lives have shaped this nation and how Britain has influenced and been influenced by the wider world • understand significant aspects of the history of the wider world: the nature of ancient civilisations; the expansion and dissolution of empires; characteristic features of past non-European societies; achievements and follies of mankind • gain and deploy a historically grounded understanding of abstract terms such as ‘empire’, ‘civilisation’, ‘parliament’ and ‘peasantry’ • understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance, and use them to make connections, draw contrasts, analyse trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses • 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 • gain historical perspective by placing their growing knowledge into different contexts, understanding 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 3, the children will know...	By the end of Year 4, the children will know...
<ul style="list-style-type: none"> • how we have found out about the past • that the earliest people who lived in Britain were part of the stone age • that stone age people build shelters to keep them safe and warm • most stone age people hunted for their food • that men, women and children had very different lives during the stone age • that there were three period: the stone, bronze and iron ages • that stone age people communicated in a different way to the way we do • know where Greece is • that the Ancient Greeks were an advanced civilization • that Spartans and Athenians often battled for supremacy • that Ancient Greeks believed in a number of Gods • that the Ancient Greeks were responsible for starting the Olympic movement • that Ancient Greeks have been associated with the birth of democracy 	<ul style="list-style-type: none"> • where Rome is. • that the Romans came to Britain 2000 years ago • that the Romans conquered Britain but left Britain with many important features, such as roads • that the Roman army was very powerful and had many weapons • that Roman gladiators would fight for entertainment • about a few famous Romans, including Julius Caesar • that Boudicca stood up against the Romans and won several battles • where Egypt is • that the Ancient Egyptians were ruled by pharaohs • that the Ancient Egyptians built very sophisticated tombs for their pharaohs called pyramids • that we know a great deal about the lives of Ancient Egyptians because of what has been found in the pyramids

<ul style="list-style-type: none"> • how the Ancient Greeks impacted on our lives today 	<ul style="list-style-type: none"> • that the Ancient Egyptians used hieroglyphs and experts have been able to translate them • that the Ancient Egyptians were a very advanced civilization • that the powerful Ancient Egyptians had many slaves
Geography	
<p>Skills</p>	<ul style="list-style-type: none"> • develop contextual knowledge of the location of globally significant places – both terrestrial and marine – including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes • understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time • collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes • interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs and Geographical Information Systems (GIS) • communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length. • Use the eight points of a compass, four and six-figure grid reference, symbols and key) including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world
By the end of Year 3, the children will know...	By the end of Year 4, the children will know...
<ul style="list-style-type: none"> • about the impact a volcano has on the lives of people living close by • what causes a volcano to erupt • to label a volcano • where some of the most well-known volcanic regions of the world are • how an earthquake occurs • what an aftershock is • what causes a tsunami • why we have extreme weather in the UK 	<ul style="list-style-type: none"> • how a river is formed • the geographical vocabulary associated with rivers, including source, mouth, estuary, meander, tributary • the difference between the upper, middle and lower courses of a river • the names and location of many famous rivers in the UK and the world • how waterfalls are formed • what an oxbow lake is • what erosion and deposition are in relation to rivers • why many cities are situated next to a river

Science	
Skills	<ul style="list-style-type: none"> • Gathering recording, classifying and presenting data in a variety of ways to help in answering questions. • Use Carroll and Venn diagrams to help sort things and record groupings, sometimes resorting using different criteria. • Recording data and results of increasing complexity using scientific diagrams, labels, classification key tables, scatter diagrams, bar and line graphs and models. • Carry out simple tests and sort and group based on the evidence of the results found. • Ask relevant questions • Set up simple practical enquiries, comparative and fair tests. • Making systematic and careful observations and where appropriate taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. • Recording findings using simple scientific language, drawings labelled diagrams, bar charts and tables. • Reporting on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions, making predictions for new values. • Using results to draw simple conclusions and suggest improvements, and raise further questions. • Identify differences, similarities or changes related to simple scientific ideas and processes. • Make simple branching databases/ classification keys for a few things with easily observable differences and that I can name. • Use simple classification keys/ branching databases to identify unknown items that that have easily observable differences in their features. • Carry out simple tests and sort and group based on the evidence of the results found • Begin to choose ways to try and answer a question • With support, they should identify new questions arising from the data, make predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done
By the end of Year 3, the children will know...	By the end of Year 4, the children will know...
<p>Animals, including humans</p> <ul style="list-style-type: none"> • that animals cannot make their own food; they get their nutrition from what they eat. • the ways nutrients and water are transported within animals, including humans. 	<p>Living things and their habitats</p> <ul style="list-style-type: none"> • the simple function of the basic parts of the digestive system. • the different types of teeth in humans and their simple functions • a variety of food chains and identify producers, predators and prey.

- that humans and some other animals have skeletons and muscles for support, protection and movement.

Plants

- the requirements of plants for life and growth vary from plant to plant.
- the role of flowers in the life cycle of flowering plants including pollination, seed formation and seed dispersal.
- the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
- the way in which water is transported within plants

Forces and Magnets;

- that some forces need contact between two objects and some forces act at a distance.
- how things move on different surfaces
- that some forces need contact between two objects, but magnetic forces can act at a distance
- how magnets attract or repel each other and attract some materials and not others
- how to compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- how magnets as having two poles
- whether two magnets will attract or repel each other, depending on which poles are facing.

Rocks

- the terms igneous and sedimentary
- the formation of igneous and sedimentary rocks.

All Living Things

- that environments are constantly changing and this can sometimes pose dangers to specific habitats.
- that living things can be grouped in a variety of ways
explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment

States of Matter

- the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
- that materials can be compared and grouped together, according to whether they are solids, liquids or gases
- that some materials change state when they are heated or cooled and observe this. They will know temperature at which this happens in degrees Celsius (°C)

Electricity

- common appliances that run on electricity
- how to construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
- that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- that some common conductors and insulators, and associate metals with being good conductors.

- the formation of fossils.
- how to group together different kinds of rocks on the basis of their appearance and simple physical properties
- to describe in simple terms how fossils are formed when things that have lived are trapped within rock
- that soils are made from rocks and organic matter.

Light

- that light is reflected from surfaces.
- how a variety of light sources explaining that we see things because light travels from them to our eyes.
- that they need light in order to see things and that dark is the absence of light
- that light is reflected from surfaces
- that light from the sun can be dangerous and that there are ways to protect their eyes
- that shadows are formed when the light from a light source is blocked by an opaque object
- to find patterns in the way that the size of shadows change.

Sound

- how sounds are made, associating some of them with something vibrating
- that vibrations from sounds travel through a medium to the ear
- To find patterns between the pitch of a sound and features of the object that produced it
- to find patterns between the volume of a sound and the strength of the vibrations that produced it
- that sounds get fainter as the distance from the sound source increases.

ART/DT

Skills

Art

- 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.

	<ul style="list-style-type: none"> • 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.
By the end of KS2, the children will know...	
<p>Design</p> <ul style="list-style-type: none"> • Art • 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. • 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"> • Open and save a file to a suitable folder • Use suitable file names when saving work • Use a search engine to find information using keyword searches • Understand that school computers are connected (if relevant) • Type using all fingers • Understand you can organise files using folders • Delete, move and copy files • Use right-click, left-click and double-click appropriately on a mouse

- Use a search engine to find specific information
- Know how to copy text and images into a another document
- Remember an individual password

By the end of Year 3, the children will know...

Using school computers

- how to open and save a file to a suitable folder; use suitable file names when saving work
- how to type using all fingers
- that school computers can be connected and they may use a shared area to save work
- to use search engines to find information using keyword searches

Computational thinking and programming

- to understand that we can decompose a program into smaller steps to make it simpler
- to use repetition to make programs more efficient
- to predict the outcome of a block-based program
- to remix and change an existing program
- to use diagrams to create an algorithm
- to use forever loops in a program

Understanding and sharing data

- how to create charts and databases
- how to design a questionnaire and collect a range of data, enter data into a database package and test
- how to draw conclusions from database
- how to Understand when to share personal information and when not to

By the end of Year 4, the children will know...

Using school computers

- how to organise files using folders, delete, move and copy files
- how to use right-click, left-click and double-click on a mouse appropriately
- how to use a search engine to find specific information and know how to copy text and images from a web page or document into another document
- how to remember an individual password

Computational thinking and programming

- how to use forever loops and selection (if..then) in a program
- how to decompose a problem and create a solution (sub-routine) for each step
- how to use procedures in programs to create sub-routines – a procedure called ‘square’ in scratch
- how to create a program using a range of events/inputs to control what happens
- how to use selection in algorithms and programs – (if...then)
- how to decompose a problem and create a solution for each step

Understanding and sharing data

- how to understand the benefits of using a computer in creating databases and charts
- how to design a questionnaire and collect a range of data, enter data into a database package and test
- how to draw conclusions from database

Communicating - Multimedia

- how to edit existing digital content into a new version with the awareness of copyright
- how to evaluate existing and their own digital content, edit it according to feedback
- how to design and create digital content
- how to understand that people can give permission for others to use their content

Communicating: Text and images

- how to use a variety of software to combine media in order to present information

- how understand when to share personal information and when not to
- understand that school computers are connected together in a network
- how to use a web browser to access information stored on the Internet and can explain simply how the internet works
- how to present data in a number of ways to convey information
- how some people lie about who they are online and recognise the benefits and risk of different apps and websites
- that we can share content online, we might not be able to delete it
- the difference between physical, mobile and wireless network
- the difference between the World Wide Web and the Internet
- the basics of how the search engines work
- how to perform complex searches for information using advanced setting in search engines
- to critically evaluate websites for reliability of information and authenticity
- how to become savvy online customers; know that algorithms are used to track online activities with a view of targeting advertising and information

Communicating – Multimedia

- how to collect, organise and present information effectively using a range of media
- how to use more complex tools to edit and enhance media for a particular effect
- how to rate a game or film they have made and explain their rating

- how to edit existing digital content into a new version with the awareness of copyright
- how to evaluate existing and their own digital content, edit it according to feedback
- how to design and create digital content
- how to understand that people can give permission for others to use their content
- different ways of reporting unacceptable content and contact online

Communicating – Text and Images

- how to collect, organise and present information effectively using a range of media
- how to design and create digital content for a specific purpose
- how to use a range of tools to edit media for a particular effect
- how to collaborate with peers using online tools, blogs, Google Drive, Office 365
- to understand that media can portray groups of people differently