

Year 5

Subject area	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Big Question	How do we know what life was like during the Early Islamic Civilisation?	Why are people inspired to explore space?	How can we make the best use of our natural resources?	Would you like to live in the Lake District?	How have people who break the law been treated differently in the past?	Should every crime be punished?
STEM	Maths					
	<p>Place Value Children will represent and partition numbers to 1,000,000 and find 1, 10, 100, 1000, 10,000 and 100,000 more or less than a given number. They will estimate, compare and order numbers to 1,000,000 and round to the nearest 10, 100 or 1000. They will also learn about powers of 10 and Roman numerals to 1,000.</p> <p>Negative Numbers Children will extend their understanding of negative numbers, counting through 0 in different ways. They will compare and order negative numbers and find the difference between numbers including negatives.</p> <p>Addition and Subtraction Children will practise adding and subtracting numbers with more than 4 digits. They will check answers using rounding and inverse operations. Problem-solving will include multiple steps and finding missing numbers.</p>	<p>Multiplication and Division Children will begin by looking at multiples and factors before moving on to prime, square and cube numbers. They will multiply and divide by 10, 100 and 1000.</p> <p>Fractions Children will find and recognise equivalent fractions and convert between improper fractions and mixed numbers. They will compare and order fractions, first those less than 1, then those greater than 1. After recapping adding and subtracting fractions with the same denominator, they will move to those with different denominators, including mixed numbers.</p> <p>Decimals Children will apply their knowledge of decimals to calculating, looking at efficient strategies for adding and subtracting decimals.</p>	<p>Multiplication and Division After recapping written methods of multiplication by multiplying up to a 4-digit number by a 1-digit number, children will move on to multiplying by 2-digit numbers. They will divide up to a 4-digit number by a 1-digit number both without and then with remainders, and solved problems with multiplication and division.</p> <p>Fractions Children will begin this unit by multiplying fractions and mixed number by single digit numbers before calculating fractions of quantities and amounts. They will find the whole when given a fraction.</p>	<p>Decimals and Percentages Children will look at decimals with up to two places and find equivalent fractions and decimals. They will then move on to thousandths and will order and compare decimals as well as rounding to the nearest whole number and 1 decimal place. They will be introduced to percentages, comparing these to both fractions and decimals.</p> <p>Perimeter and Area Children will estimate and calculate the perimeter and area of different kinds of shapes.</p> <p>Statistics Children will draw and interpret line graphs and tables, including two-way tables and timetables.</p>	<p>Shape After recapping the use of degrees to measure angles, children will classify, estimate and measure angles. They will calculate angles around a point and on a straight line, then move on to shape, including irregular polygons and 3D shapes.</p> <p>Position and Direction Children will read and plot coordinates and use this knowledge to solve problems. They will extend their knowledge of translation to translation with coordinates. They will learn about lines of symmetry and reflection.</p>	<p>Decimals Children will multiply and divide numbers by 10, 100 and 1000, then learn to multiply and divide decimals.</p> <p>Converting Units Children will learn about kilograms and kilometres, millilitres and millimetres. They will convert units of length and time and calculate with timetables.</p> <p>Measurement: Volume Using cubic centimetres, children will compare and estimate volume and capacity.</p>
	Science					
<p>Forces Children will learn to explain the role of gravity on objects on Earth. They will identify the effects of air resistance, water resistance and friction. They will also learn how some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>	<p>Earth and space Children will describe the movement of the Earth and other planets, relative to the sun in the solar system and describe the movement of the moon relative to the Earth. They will use Earth rotation to explain day and night due to the apparent movement of the sun across the sky.</p>	<p>Living things and their habitats (animals) Focusing on life cycles, children will compare those of a mammal, an amphibian, an insect and a bird. They will describe the life process of reproduction in some plants and animals.</p>	<p>Animals including humans Looking at gestation periods and developmental milestones, children will learn about the changes as humans develop from birth to old age.</p>	<p>Properties and changes of materials Children will compare and group together everyday materials based on their properties. They will learn about solubility and use their knowledge of solid, liquid and gas to decide how mixtures might be separated including through filtering, sieving and evaporation. Investigative work will support learning about reversible and irreversible changes.</p>		
Computing						
<p>Systems and searching Children will learn how computers can be connected together to form systems and recognise the role of computer systems in our lives. They will identify how to use a search engine and find out how search engines select and rank results, recognising why this is important.</p>	<p>Selection in physical computing Children will control a simple circuit connected to a computer and write a programme that includes count-controlled loops. They will explain how a loop is developed and design a physical project that includes selection and programming controls.</p>	<p>Video production Children will explain what makes a video effective and capture videos using a range of devices. They will create storyboards; improve and edit videos while considering the impact of the choices made.</p>	<p>Flat-file databases Children will use a form to record information and compare paper and computer-based databases. They will outline how you can answer questions and explain the tools to select specific data. In addition, they will explain that computer programs can be used to compare data visually and use real-world databases to answer questions.</p>	<p>Introduction to vector graphics Children will identify that drawing tools can be used to produce different outcomes and create vector drawings by combining shapes. They will also use tools to achieve a desired effect and group objects to make them easier to work with.</p>	<p>Selection in quizzes Children will explain how selection is used in computer programmes and relate conditional statements and outcomes. They will design, create and evaluate a programme that uses selection.</p>	
D.T.						

		<p>Mechanisms – Pulleys or gears Looking at a range of products, children will use observational drawings and questions to develop their understanding of products with pulley systems. They will learn about different sized pulleys and then learn to incorporate a pulley system into an electrical circuit. After constructing wooden frames, children will decide how to locate the components on their electric toy car, to make it appeal to the intended user.</p>		<p>Food: Celebrating culture and seasonality Children will find out about bread associated with different cultures both in the UK and around the world. After practising the techniques needed for bread-making, they will develop their own bread rolls, thinking about how seasonal ingredients can be used.</p>		<p>Structures - frame structures Children will investigate and make annotated drawings of a range of portable and permanent frame structures. After researching using triangulation to add strength to a structure, they will work with paper straws to build 3D structures. They will develop and make a small-scale frame structure, working with accuracy and evaluating.</p>
	History					
	<p>Early Islamic Civilisation After gaining an understanding about when and where the Early Islamic Civilisation developed, children will explore and discuss reasons it is important to study the Islamic civilisation in this period. They will learn about the city of Baghdad and the daily lives and beliefs of its citizens, including the importance of trade. Alongside will run work around what different sources of evidence tell us, and their reliability.</p>	<p>Space Race and Hidden Figures Children will develop their understanding of chronology through positioning important events on a timeline. They will then focus in on the role of a group of female global majority scientists within NASA and place these in the historical context of the USA in the 20th Century.</p>			<p>Crime and punishment The children will use their inquiry skills to explore the development of Crime and Punishment while investigating how societies have managed criminals. They will analyse historical evidence that illuminates punishments from 800 years ago. They will investigate how medieval justice was served, while exploring the evolution of crime and punishment between 1500 and 1750 and delve into shifting societal attitudes and their impact on penalties. Through these investigations, they will learn to decipher how the past is represented and interpreted, gaining insights into historical continuities and shifts in the realm of Crime and Punishment.</p>	<p>Crime and punishment The children continue their exploration of Crime and Punishment further investigating the evolution of punishments, from the grim realities of the 18th century to modern times; pondering the reasons behind the shift to more brutal penalties. Through analysis of historical evidence, they will explore the ever-changing landscape of crime prevention and punishment. The children will investigate how the methods of catching and penalising criminals have evolved over the last century, scrutinising the impact of these changes on society. Thus understanding why the 19th century was a pivotal period of transformation in the realm of Crime and Punishment.</p>
	Geography					
Humanities	<p>Early Islamic Civilisation As part of their history topic, children will explore the importance of location to the Early Islamic Empire.</p>		<p>Natural resources Children will learn about natural resources and land use in Britain. They will look at the many ways land is used, how it has changed and the factors limiting the ways in which it can be used. They will find out about the natural resources that are burned to produce electricity, and compare these with renewable sources of energy. A focus on wood, steel, glass and concrete will allow children to understand different uses of natural resources, with a focus on the use of natural resources in the home.</p>	<p>UK focus: Lake district TBC Use https://www.lakedistrict.gov.uk/ Following on from their learning about natural resources, and after learning about the counties of the UK, children will focus in on one area of the UK: the Lake District. Learning will include what makes this area unique and how it's physical and human geography compares to that of Greater London, as well as how this geography impacts the lives of the people who live in the Lake District. Some areas for learning and discussion will include: the harnessing of natural resources at Thirlmere Reservoir; the impact of the Industrial Revolution on the landscape; the role of farming in the area; the Lake District Natural Park and tourism.</p>		
	RE					

	<p>Islam: Ramadan and Id ul Fitr After recapping prior learning about the Five Pillars of Islam, children will learn about the importance of the month of Ramadan to Muslims, including fasting and worship. They will learn about the celebration of Id ul Fitr at the end of Ramadan and the importance of charity at Id.</p>	<p>Islam: Hajj and Id ul Adha Children will listen to and discuss the story of Prophet Ibrahim (pbuh) and his son Ismail (pbuh) rebuilding the Ka'aba. They will discuss Qur'anic quotes about Hajj and learn about Hajj requirements. They will learn about Id ul Adha, the festival that takes place the day after the gathering of pilgrims on Mount Arafah.</p>	<p>Sikhism 3: The Gurdwara and Guru Granth Sahib Children will learn about the Gurdwara as the centre for the Sikh community and a place of prayer and worship. They will find out about the Guru Granth Sahib, the Sikh holy book and final everlasting Guru, including how it is treated, its content and its use.</p>	<p>Sikhism 4: Belonging to the Sikh community Learning about Sikhism will continue by finding out about Guru Gobind Singh, the last human Guru, who established the Khalsa and developed the 5 Ks. Children will learn about going through the Amrit ceremony to become a Khalsa'd Sikh.</p>	<p>Christianity 8: Jesus Human and Divine Children will learn about the Trinity, how Christians see God as Father, Son and Holy Spirit. They will recap learning about Christmas as the celebration of Jesus' birth. They will consider the importance of friendship when they hear about Jesus choosing 12 disciples. They will learn about Jesus' temptations, baptism, miracles and acts of healing, and consider the importance of Easter as the end of Jesus' life on Earth.</p>	<p>Christianity 9: Leading a Christian Life Children will learn about commitment, belonging and belief in the special presence of God during significant life events. They will consider examples of at least one person and one charitable organisation that exemplifies Christianity in action. This will include a visit from a local Christian to share how their life is led by faith.</p>
	Art					
The Arts	<p>Making Monotypes Children will learn what a Monotype is and can see how artists use monotypes in their work. They will study drawings made by other artists and identify particular marks they have used in their drawings. They will listen to a piece of poetry and think about how the piece evokes colours, lines, shapes and words in their head, and they will use these to create imagery which captures the mood of the piece of poetry. They will use their sketchbook to explore their ideas. They will use their mark making skills to create exciting monotypes, combining the process with painting and collage.</p>		<p>Typography and Maps Children will learn that Typography is the visual art of creating and arranging letters and words on a page to help communicate ideas or emotions. They will see how other artists work with typography and share their thoughts on the work. They will explore how they can create their own letters in a playful way using cutting and collage. They will reflect upon what they like about the letters that they have made. They will use sketchbooks for referencing, collecting and testing ideas, and reflecting. They will learn how to make their drawings appear visually stronger by working over maps or newspaper.</p>		<p>Exploring Sculpture: Making a mobile</p>	
	Music					
	<p>All classes group A: Steel pans All classes group B: Bandlab (digital composition)</p>	<p>All classes group A: Steel pans All classes group B: Bandlab ** 2 week break for Christmas Production rehearsal</p>	<p>All classes group B: Steel pans All classes group A: Bandlab</p>	<p>All classes group B: Steel pans All classes group A: Bandlab</p>	<p>All classes group A: Steel pans rehearsal and concert All classes group B: Great Composers In Great Composers, children will learn about the history of the Great Composers. They will explore their music and learn about popular Classical compositions.</p>	<p>All classes group B: Steel pans rehearsal and concert All classes group A: Great Composers</p>
	PSHE					
	<p>Keeping/Staying Safe: Peer Pressure Looking at how we can be influenced and pressured to make unsafe choices.</p> <p>Keeping/Staying Healthy: Smoking Smoking explores how someone can be pressured in to smoking.</p> <p><i>Zones of Regulation Recap, Kilmore Rules and Kilmore Qualities</i></p>	<p>Being Responsible: Looking Out for Others Looking Out for Others looks at the responsibility we have if we witness someone being bullied.</p>	<p>Computer Safety: Image Sharing Image Sharing looks at how we can be pressured in to sending images and how to manage this.</p>	<p>Computer Safety: Image Sharing Image Sharing looks at how we can be pressured in to sending images and how to manage this.</p> <p>First Aid This topic looks at basic life support techniques, such as the recovery position, CPR, and DRs ABC.</p> <p>Growing and Changing: Puberty Puberty looks at the different changes boys and girls go through during puberty.</p> <p>RSHE Talking about Puberty <i>The Reproductive System</i></p>	<p>Feelings and Emotions: Anger Anger looks at the ways in which we can manage our emotions when we are unable to do something we wanted to.</p> <p>First Aid This topic looks at basic life support techniques, such as the recovery position, CPR, and DRs ABC.</p>	<p>The Working World: Enterprise Enterprise looks at how children can help pay for items they would like.</p> <p>A World Without Judgement Inclusion and Acceptance Inclusion and Acceptance explores the topic of a child having same sex parents.</p>
	P.E. (Outdoor/Indoor)					
	NB: indoor PE is done on a rotational basis as each class gets a term of dance					

