Cycle D	Term 1 - Autumn	Term 2 - Spring	Term 3 - Summer
	I Am Warrior! 	**Traders and Raiders** 	**Flow** 
Key Vocabulary. **Tier 3 words.** **Tier 2 words.**	Amphitheatre, aqueduct, barbarian, Britannia, Caledonia, cassis, Celts, centurion, chariot, Colosseum, emperor, forum, Gaul, gladiator, gladius, Hibernia, invader, invictus, lanista, Latin, legion, mosaic, pilum, pugio, Roman Empire, Roman numerals, Romans, scutum, servus, soliloquy, standard, taxes, via.	Account, afterlife, Angle, Anglo - Saxon, artefact, Athurian, attack, battleaxe, Britannia, charm, chieftain, conquer, custom, Dark Ages, defend, deity, Germanic, indigenous, invader, Jute, kingdom, legend, longhouse, Middle Ages, monk, Offa's Dyke, plunder, raiders, Roman Empire, runestone, Saxon, Saxon shore fort, scholar, seax, settlement, skald, territory, Thegan's great hall, traders, Viking.	Aquatic, channel, collection, condensation, confluence, current, delta, deposition, downstream, erosion, estuary, evaporation, floodplain, flow, hemisphere, hydropower, interlocking spurs, meander, mouth, non-aquatic, outflow, oxbow lake, pollution, precipitation, recreation, river, riverbank, river basin, riverbed, river profile, run-off, sediment, settlement, source, spring, stream, tributary, upstream, V-shaped valley, watercourse, water cycle, waterfall.

Project overview	I am Warrior! I am strong, brave and powerful. Meet me in battle. Draw your sword, wield your axe and challenge me if you dare! Invade and attack, Romans versus the Celts, the fight is on. Discover warring Britain: meet Claudius, Boudicca and Julius Caesar, and find out what the Romans did for us. Get ready for Gladiator School and learn alongside Spartacus and Spiculus: brave fighters of the Roman Colosseum. When all that battling makes you hungry, relax, lie back and feast yourself on dormice and grapes, or perhaps a roasted swan sprinkled with nuts?	Big and strong, powerful and brave, the Saxons wave their battle axes and brandish their swords as they begin to invade Britain's shores. Sail back to the Dark Ages, where battles were rife and fear reigned. Find out about the life of the Saxons, including how they lived and where they came from. Meet the bloodthirsty Vikings from Scandinavia – never before had such terror swept the land. Make a Saxon sword or a Viking brooch and decorate it with intricate patterns. Choose to be a Saxon or Viking and trade your crafty goods. But let's keep it cool – we don't want a fight breaking out! Are you ready to shine a light on the dangerous and deadly Dark Ages?	From humble beginnings, the river flows down the mountain and into the sea. Pull on your wellies and wade right in. How deep does it go and how fast does it travel? What soil types can you find by the river? Which animals make their homes there? Let's get down to the river bank and find out. Now hop on an imaginary boat and travel some of the world's most majestic rivers – the Ganges, the Thames, the Amazon and Nile – and keep a journal as you follow their course. Time to investigate. As part of the local news team, it's your task to track down the source of some mystery pollution. Where did it come from and who is to blame? Let's meander through the world of rivers, taking a dip into their watery world.

When reviewing our curriculum rolling programme we considered the key aspects of our CURRICULUM INTENT as:

To provide a curriculum which encourages pupils, within a supportive Christian environment, to aspire to reach their full potential. This will be achieved through experiential learning, using the richness of our local rural community and culture, but also by opening the children's eyes further to gain knowledge about, and see the opportunities in, the wider British, European and global contexts.

Cycle D	**Term 1 - Autumn**
What are the key pieces of knowledge we want children to remember, be able to build upon and to reflect on within each subject area of this topic **Text in this colour relates to key pieces of knowledge linked specifically to our Curriculum Intent.** **Text in this colour describes example activities to support the main theme of the topic.**	
Main Topic	**I am Warrior! (History)**
History	**Key changes and events of historical periods** can be placed on a timeline, such as the dates of changes in leadership, key battles and invasions, achievements, scientific developments and deaths.

	Relevant historical information can be presented as written texts, tables, diagrams, captions and lists. **The influences of Roman civilisation on Britain** include the building of roads, houses and villas with technology, such as underfloor heating; the building of forts and fortified towns; the use of language and numbers in the form of Roman numerals and the spread of Christianity. **A profile of a leader** can include their significant achievements, the events in which they played a part, the opinions of others about the person and the positive or negative consequences of their actions. **Romans** invaded Britain 55BC, 54BC and 43AD. Romans used various types of cranes to aid construction of homes and buildings. **Chronology** **Yr 3/4** Know how to describe ways of life that are typically associated with a period. Know how to describe a studied figure, what they stood for and how that affected actions taken. Know how to describe key leaders of an empire and why they are key. Know how to explain important social and political phenomenon from an era such as gladiators. Know how to compare and contrast how some groups lived in the past compared with others (Romans/Anglo Saxons). Know how different cultural beliefs impacted on key aspects of life such as buildings. Know how to crate timelines of periods studied. Know how to create timeline which shows how period studied fits into the wider timeline of history. **Yr 5/6** Know how to plot significant events on a timeline including antecedents. Know how to describe historical significant of historical findings.

	Know how to describe in detail significant events and why they were significant. **Historical Enquiry** **Yr 3/4** Know what is likely to be accurate representation of time periods and which are not. Know how to compare and contrast artefacts and distinguish between what we know and what we assume. Know how to use artefacts to construct a historical argument. Know how to use primary and secondary sources to research an idea. Know why archaeologists find certain sources of significant importance. Know how to interpret primary sources of history with some independence. Know how to make judgements about what primary sources tell us about life during periods studied and begin to consider bias. Know how to begin to independently use a range of primary and secondary sources to construct layouts/plans of buildings. Know how to use evidence to make a judgement about achievements. **Yr 5/6** Know how to use evidence to explain changes between time period studied and modern day. Know how to make reasoned judgements on ancient artefacts and compare to modern understandings by published historians. Know how to evaluate a range of primary and secondary sources in order to construct a mostly independent historical argument. Know how to explain why some findings are of greater significance than others. Know how to formally critique the validity of primary and secondary sources.

	Interpretations of History **Yr 3/4** Know why archaeologists think what they do and explain whether they agree. Know how to empathise with visitors to historic significant places. Know how to explain why some people living during the studied period had different viewpoints. Know how to decide upon and justify whether they think a significant character was great. **Yr 5/6** Know how to synthesise multiple sources to surmise likely reasons for a decline in civilisation. **Continuity and Change** **Yr 3/4** Know how to compare the relative small number of people present in the same area from ancient history and modern day. Know how to compare and contrast the homes of people from two groups of people who followed each other chronologically (understand how people lived depended on the culture of their own lands and not the land they were coming to). **Yr 5/6** Know how to compare and contrast occupations from a specific period and now. Know how to compare the leadership styles of two rulers from different time periods. **Cause and Consequence** **Yr 3/4/5/6** Know how to make a judgement on the impact of harsh treatment on a group of people/population

Similarities and Differences

Yr 3/4

Know how to explain with evidence how some wealthy classes in some civilisations have sought to influence lower classes (i.e. Roman gladiators)

Yr 5/6

Know how to compare different groups of society from an ancient era of study and explain why making judgements is difficult.

Significance

Yr 3/4/5/6

Know how to understand how places can be of significance to a local area whereas some are significant on a global scale.

Know and explain why a taught historical period is considered significant.

Know and explain why some battles have become significant in the view of English historians.

Black and British
Key Question – How Shall We Tell the Story of The First Black Britons in Britain
Know that the first recorded African community in Britain was based at Burgh by Sands some 1,800 years ago. There was a fort on Hadrian's wall at Burgh by Sands, known to Romans as Aballava.

Know that the Libyan born emporer Septimius Severus came to Britain in AD 208.

Use a timeline to mark changes in leadership starting with Augustus 31 BCE, Claudias 41CE, Titus 79 CE.

The Romans arrived in the South West in about 50AD. They built a wooden fort on a hill near the river Exe. A town was then created on this fort called Isca. Isca Dumnoniorum, also known simply as Isca, was a town in the Roman province of Britannia at the site of present-day Exeter in the English county of Devon in the United Kingdom. It served as the tribal capital of the Dumnonians under and after the Romans. The city walls of Exeter (some 70% of which survive) mark the former perimeter of Isca and excavations in the 1970s and 1980s verified that the town was home to a Roman fortress almost certainly for the Second Augustan Legion. The town seems to have grown up around this fort (established c. ad 55) but seems to have gone into decline prior to the Roman withdrawal from Britain c. 410.

	Like all Roman towns Exeter or Isca had a rectangular space called the forum. This was the market place. It was also lined with shops and the basilica, a kind of town hall. There were also public baths in Roman Exeter. In Roman times people went to the baths not just to get clean but also to socialise. Place the era of the Roman Empire in Britain on a timeline with other significant periods in our history previously studied as well as those to be studied. Display at front of class. Visit Exeter to look at the Roman City Wall and work with Exeter red coat tours. Part of the visit to include focused activities at the RAMM. 'Rom' the Roman to visit and coordinate a Roman invasion enactment.
Geography	**An atlas** is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area. **A physical feature** is one that forms naturally and can change over time due to physical processes, such as erosion and weathering. Physical features include rivers, forests, hills, mountains and cliffs. An aspect of a physical feature might be the type of mountain, such as dome or volcanic, or the type of forest, such as coniferous or broad-leaved. **Human features** can be interconnected by function, type and transport links. **Locational Knowledge** **Yr 3/4** Know the name and locate the capital cities of neighbour European countries. Know the difference between the British Isles, Great Britain and UK. Know the countries that make up the European Union, and the fact that Britain is now not part of it. Know the names of up to six cities in the UK and locate them on a map (revise Plymouth, Exeter, London, Cardiff, Belfast and learn Birmingham, Liverpool, Glasgow, Bristol, Manchester, Sheffield). Know how to locate and name some of the main islands that surround the UK – Hebrides, Shetland Islands, Orkney Islands, Isles of Scilly, Isle of Man. **Yr 5/6** Know the names and locations of many of the world's most famous mountain regions and volcanoes on maps. Know the capital cities of Europe and major cities from around the world. **Place Knowledge**

	Yr 3/4/5/6 Know how to link words to topic e.g. river, meander, location. Know how to use correct geographical words to describe a place and the things that happen there. Know how to locate the Mediterranean and explain why it is a popular holiday destination. Know how to carry out research to discover features of cities and villages (could involve links to some of the smaller schools in our federation). Know why people are attracted to living in cities. Know why people may choose to live in a village rather than a city. Know how to name and locate vegetation belts across the UK, explaining how some oof these have changed over time. **Human Features** **Yr 3/4** Know how to describe and compare different human features of a place, offering explanations for the lcoations for some of these features. Know how people both damage and improve the environment. Know how people explain how people try to sustain environments. Know how to compare and contrast how areas of the world have capitalised on their physical and human features. **Yr 5/6** Know how to explain how a location fits into its wider geographical location; reference to human and economical features. Know how to give an extended description of the human features of different places around the world. **Physical Features**

	Yr 3/4 Know how to use technical and geological vocabulary to describe physical processes. Know how to describe how volcanoes are created. Know how to describe how earthquakes are created. Know how to describe and compare different physical features of a place offering explanations for the locations for some of these features. Know how to ask questions like – what is this landscape like?, what will it be like in the future? Know how physical activity has impacted and/or changed the physical characteristics of a place in the world. Know how to compare and contrast how areas of the world have capitalised on their physical and human features. Know how to understand the concept of vegetation belts. **Yr 5/6** Know how to describe the physical features of mountains. Know how to describe how some places are similar and others are different in relation to their physical features. **Skills, Maps Work and Fieldwork** **Yr 3/4** Know how to describe route and direction linking N,S,E,W with degrees on the compass. Know how to ask geographical questions: where is this place? What do you think about it? Know how to locate appropriate information needed for a task, from a source material. Know how to use maps and atlases appropriately by using contents and indexes.

	Know how to use 8 points of a compass to describe the location of a country or geographical feature. Know how to link words to topic e.g. contour, river, height, valley Know how to analyse evidence and draw conclusions e.g. make comparisons between locations using photos, pictures an maps. Know how to identify and explain different views of people including themselves. Know how to collect and record evidence, show questionnaire results in simple chart or colour coded maps which demonstrate patterns. Know how to communicate in ways appropriate to task and audience. Know how to draw sketch maps and plans using standardised symbols and key. Know how to locate and name geographical features on an Ordnance Survey map. Know how to plot a route on a map or a globe, from one place to another, identifying countries or significant landmarks that are passed. **Yr 5/6** Know how to describe route, direction and location, linking 8 points of compass to degrees on compass. Know how to ask questions: what is this landscape like? how has it changed? what made it change? how is it changing? Know how to compare historical maps of varying scales. Know how to communicate in different ways appropriate to task and audience e.g. persuasive writing – present information on map overlays to show levels of information e.g. old/new Know how to plan a journey to a place in another part of the world, taking account of distance and time. Know how to accurately describe routes using 8 points of the compass. Know how to use 6 figure grid references. Know how to use maps, aerial photos, plans and web resources to describe what a locality might be like, locate information with speed and accuracy, use keys to make deductions about landscape / industry / features etc.

	Know why settlements developed where they did. Know about the iron-age fort at Woodbury and why Exeter was chosen as a settlement. Almost 10% of the Roman Wall around Exeter still remains to be seen today. The city was first founded by Romans in 55AD due to good farmland around and a great water supply from the River Exe. Geographical features such as the River Exe led the Romans to settle with a river teeming with fish and fertile soil near-by. Exmouth is one of 15 British towns to appear on early Roman era maps. Littleham and Withycombe make up Exmouth town and can be traced back to pre -Saxon times. Use an atlas to locate and identify main continents, oceans and seas as well as where the UK is. Use detailed maps of the UK to identify where Exeter and Exmouth are. Find where Italy is and where the Roman Empire extended to at its height. Use Exeter as an example when comparing, contrasting and exploring. Visits to Exeter, either in person or virtually, will highlight this learning and create new learning opportunities. Find out about similarities and differences between Italy and Britain (Exeter), including climate, landscape, size and weather. Use maps, globes and geographical information books to research their information and record their findings using appropriate software to create a table to illustrate the differences that they discover. Use contemporary maps of Rome to locate a variety of its significant human features. Look for the Colosseum, the Vatican City, the Pantheon, the Sistine Chapel, St Peter's Square, Trevi Fountain and the Roman Forum. Use a street map to plan a route around the city that includes all of the above attractions. Make suggestions for ways that features are interconnected, for example, by function, type or transport links.
Science	**Voltage** is measured in volts (V) and is a measure of the difference in electrical energy between two parts of a circuit. The bigger the voltage, the more electrons are pushed through the circuit. The more voltage flowing through a lamp, buzzer or motor, the brighter the lamp, the louder the buzzer and the faster the motor. **A circuit** needs a power source, such as a battery or cell, with wires connected to both the positive and negative terminals. Other components include lamps, buzzers or motors, which an electric current passes through and affects a response, such as lighting a lamp or turning a motor. When a switch is open, it creates a gap and the current cannot travel around the circuit. When a switch is closed, it completes the circuit and allows a current to flow all the way around it. There are recognised **symbols** for different components of circuits. **Electricity** **Yr 3/4**

	Know that many household devices and appliances run on electricity. Know that some plug into the mains and others run on batteries. Know that an electrical circuit consists of a cell or battery, connected to a component using wires. Know that if there is a break in the circuit, a loose connection or a short circuit, then the component will not work. Know that a switch can be added to the circuit to turn the component on or off. Know that metals are good conductors so they can be used as wires in the circuit. Know that non metallic solids are insulators except for graphite (pencil lead). Know that water, if not completely pure, conducts electricity. **Yr 5/6** Know that adding more cells to a complete circuit will make a bulb brighter, a motor spin faster or a buzzer make a louder sound. Know that if you use a battery with a higher voltage, the same thing happens. Know that adding more bulbs to a circuit will make each bulb less bright. Know that using more motors or buzzers, each motor will spin more slowly and each buzzer will be quieter. Know that turning a switch off (open) breaks a circuit is not complete and electricity cannot flow. Know that any bulbs, motors or buzzers will then turn off as well. Know how to use recognised circuit symbols to draw simple circuit diagrams. **Forces** **An object** will not move unless a pushing or pulling force is applied. Some forces require direct contact, whereas other forces can act at a distance, such as magnetic force.

	Some materials have magnetic properties. Magnetic materials are attracted to magnets. All magnetic materials are metals but not all metals are magnetic. Iron is a magnetic metal. **Magnets** have two poles (north and south). Opposite poles (north and south) attract each other, while like poles (north and north, or south and south) repel each other. **Yr 3/4** Know that a force is a push or a pull. Know that when an object moves on a surface, the texture of the surface and the object affect how it moves. Know that I may help the object to move better or it may hinder its movements e.g. ice skater compare to walking on ice in normal shoes. Know that a magnet attracts magnetic material. Know that iron, nickel and other materials containing these e.g. stainless steel are magnetic. Know that the strongest parts of a magnet are the poles. Know that magnets have two poles, a north pole and a south pole. Know that if two unlike poles e.g. two north poles are brought together, they will push away from each other (repel). Know that it two unlike poles e.g. a north and south are brought together they will pull together (attract). Know that for some forces to act, there must be contact e.g. a hand opening a door, the wind pushing the trees. Know that some forces can act at a distance such as magnetism. Know that a magnet does not need to touch the object that it attracts. Know examples of forces in everyday life. **Yr 5/6** Know that a force causes an object to start moving, stop moving, speed up, slow down or change direction.

	Know that gravity is a force that acts at a distance. Know that everything is pulled to the earth by gravity. Know that gravity causes unsupported objects to fall. Know that air resistance, water resistance and friction are contact forces that act between moving surfaces. Know that objects may be moving through the air or water, or the ai and water may be moving over a stationary object. Know that a mechanism is a device that allows a small force to be increased by a larger force. Know that pay back is that it requires a greater movement. Know that a small force moves a long distance and the resulting larger force moves a small distance e.g. a crowbar or bottle top remover. Know that pulleys, levers and gears are all mechanisms, also known as simple machines. **Sound** **When an instrument is played**, the air around or inside it vibrates. These vibrations travel as a sound wave. Sound waves travel through a medium, such as air or water, to the ear. **Pitch** is how high or low a sound is. Parts of an instrument that are shorter, tighter or thinner produce high-pitched sounds. Parts of an instrument that are longer, looser or fatter produce low-pitched sounds. **Volume** is how loud or quiet a sound is. The harder an instrument is hit, plucked or blown, the stronger the vibrations and the louder the sound. **Yr 3/4/5/6** Know that a sound produces vibrations which travel through a medium from the source to our ears. Know that different mediums such as solids, liquids and gases can carry sound but that sound cannot travel through a vacuum (an area of empty matter). Know that vibrations cause parts of our body inside our ears to vibrate, allowing us to hear (sense) the sound. Know how to change the volume of a sound e.g. increase the size of vibrations by hitting or blowing harder.

	Know that the loudness (volume) of the sound depends on the strength (size) of vibrations which decreases as they travel through the medium. Know that sound decreases in volume as you move away from the source. Know that a sound insulator is a material that blocks sound effectively. Know that pitch is the highness or lowness of a sound and is affected by features of objects producing the sounds. For example, smaller objects usually product higher pitched sounds. **Knowledge of Working Scientifically** ***Electricity*** **Yr 3/4** Know how to decide what to measure or observe in order to answer a question. Know how to begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Know how to choose from a selection of equipment to use. Know how to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, suing a range of equipment, including thermometers and data loggers. Know how to use ICT packages to present data as a scattergram. Know how to identify differences, similarities or changes related to simple scientific ideas and processes. **Yr 5/6** Know how to take repeated readings and compare results – discussing using scientific language the reasons for differences. Know how to take accurate and precise measurements.

	Know how to record data from a choice of familiar approaches. Know how to use test results and previous scientific knowledge to make predictions for further investigations asking specific relevant questions. Know how to draw conclusions based on their data and observations, use evidence to justify their ideas, use scientific knowledge and understanding to explain their findings. ***Forces and Magnets*** **Yr 3/4** Know how to choose a source from a range provided. Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. Know how to be able to put appropriate headings onto intersecting Venn diagrams. Know how to make a range of relevant observations using simple equipment with support. Know how to present observations in labelled diagrams. Know how to be able to compare objects based on more sophisticated, observable features. Know how to be able to answer questions using simple scientific language. Know how to spot patterns in the data. **Yr 5/6** Know how to ask further questions based on results. Know how to recognise and control variables where necessary. Know how to begin to decide which variables to control. Know how to make decisions about what observations to make, measurements to take and how long to make them for.

	Know how to take repeat readings where appropriate. Know how to measure using standard units using equipment that has scales involving decimals. Know how to prepare own tables to record data, including columns for taking repeat readings. Know how to begin to choose an appropriate form of presentation including scatter graphs. Know how to be able to answer their questions identifying patterns. Know how to provide oral or written explanations for their findings. Know how to explain their degree of trust in their results including the precision in taking measurements and accuracy of results. ***Sound*** **Yr 3/4/5/6** Know how to independently ask a range of relevant questions that will provide 'useful' results linked to a topic. Know how to choose what to measure or observe. Set up simple practical enquiries, comparative and fair tests. Know how to think of more than one variable factor. Know how to make systematic and careful observations. Use notes, simple tables and standard units to present results. Know how to suggest new questions arising from the investigation.
Art and design	**Roman buildings** were often richly decorated with mosaics-tiny coloured stones. Know that the Romans used mosaics to tell stories and that the remains of mosaics were found under Exeter Cathedral. Mosaics captured scenes of everyday Roman Life. Mosaic floors were statements of wealth and importance.

	Use of Sketchbook **Yr 3/4** Know how to use sketchbooks to record initial ideas and observations. Know how to use sketchbook to show knowledge and art history they have learnt. Know how to write notes about the purpose of the work. **Yr 5/6** Know how to use sketchbook to show knowledge and art history they have learnt. Know how to make explicit reference to methods and skills used in artwork they have created or artwork of others. Know how to reflect on their work and its meaning and purpose. **Pattern** **Yr 3/4** Know how to create original designs for patterns using geometric repeating shapes. Know how other artists use pattern describe how this looks. Know how to create geometric compositions using mathematical shapes. Know how to analyse and describe the use of shape in artist's work. Know how to construct patterns using various methods to develop their understanding. Know how to represent feelings and emotions through pattern. Create portraits or 'story' scene using mosaics. – Children to match tool to material. Choose fabric squares/paper squares to create a collage - replicate the biggest Roman mosaic found in Exeter and know that it dates from early fourth century AD. It came from a town house in what is now Catherine Street. Locate this during City visit.

Music	Know that types of sound are used to accompany a song. **Listen and Appraise** **Yr 3/4/5/6** Know five songs from memory (links to subject topics/Christmas if possible) and who sang them or wrote them. Know the style of the five songs. Know, for one of the songs, how to talk about the musical characteristics that give the song its style. Know, for one of the songs, how to talk about the lyrics of the song. Know, for one of the songs, how to talk about any musical dimensions featured in the song and where they are used e.g. texture, dynamics, tempo, rhythm, pitch – link this to science unit on 'sound' if applicable. Know, for one of the songs, how to identify the main sections of the song e.g. introduction, verse, chorus. Know the names of some of the instruments they heard in the song. Know how to talk about how the music makes them feel. **Yr 5/6** Know the historical context of the song. What else was going on at the time. Know and talk about the fact that we each have a musical identity. Know how to think about the message of the song. **Singing** **Yr 3/4/5/6** Know that singing in a group can be called a choir.

	Know that the leader or conductor is the person who the choir or groups follow. Know that songs can make you feel different things e.g. happy, energetic or sad. Know that singing as part of an ensemble or large group is fun, but that you must listen to each other. Know why you must warm up your voice. Know how a solo singer makes a thinner texture than a large group. Know how to sing in unison and in two simple parts. Know how to demonstrate a good singing posture. Know how to follow a leader when singing. Know how to enjoy singing solo. Know how to sing with an awareness of being in tune. Know how to rejoin the song if lost. Know how to listen to the group when singing. **Improvisation** **Yr 3/4/5/6** Know what improvisation is and be able to talk about improvisation. Know that improvisation is making up your own tunes on the spot. Know how to improvise using instruments in the context of the song they are learning to perform. Know that when someone improvises they make up their own tune that has never been heard before. It is not written down and belongs to them.

	Yr 5/6 Know three well known improvising musicians. Learn from memory 5 contrasting songs – discuss how the sounds are created (link to science), comment on their likes and dislikes and sing them to performance standard. Analyse and comment on how sounds are used to create different moods (link to science). What sounds might inspire an army and spur them on? Consider the sounds different percussion instruments can make, and how the sound is produced (link to science). Improvise with the instruments to make suitable accompaniments to the songs being learnt.
Computing	**Technology In Our Lives** **Yr 3/4** Know how to use search tools to find and use an appropriate website. Know that the World Wide Web is a part of the internet that contains websites. Know how to save and retrieve work on the school devices. Know how to scan a QR code to retrieve information. Know how to create a QR code to link to information and resources. Know what the internet is and what websites are. Know that websites use different methods to advertise products. Know that information online may not always be reliable. Know how to identify key words to use when searching safely on the World Wide Web. Know how to create a hyperlink to a resource.

	Yr 5/6 Know how to explain the difference between the internet and the World Wide Web and how they are linked. Know how information online may not be accurate or reliable. Know which resources on the internet I can download and use. Know the internet services that are needed to be used for different purposes. Know how information is transported on the internet. Know how to check the reliability of a website. Know about copyright and how to acknowledge the sources of information that are found online. Evaluate websites. – what features make a 'good' website. Know how the internet works and the accuracy of websites. Know that websites may differ in the facts they discuss. Know how to stay safe when using the internet. Know who to talk to and some of the online facilities available to report concerns. Refer to "think you "know and CEOP resources. **Multimedia** **Yr 3/4** Know how to combine text, graphic and sound to communicate ideas to others in a variety of ways. Know how to use keyboard commands to amend text including the use of spell check. Know how to critically evaluate work and use this to improve its effectiveness. Know how to use Google Classroom to share work with others in my class.

	Know how to use a keyboard confidently and make use of a spell checker to write and review work. Know how to use Google Classroom to give constructive feedback to others to help them improve. Know how to create, modify and present documents for a particular purpose. Know how to change the appearance of text to increase its effectiveness. **Yr 5/6** Know how to select, use and combine appropriate technology tools to create an effect that will have an impact on others. Know how to select appropriate online or offline tools to create and share ideas. Know how to use text, photo, sound and video editing tools to refine work. Know how to apply skills that have previously been developed to create content using unfamiliar technology. Know that a range of media can be combined, recognising the contribution of each to achieve a particular outcome. Know how to discuss audience, atmosphere and structure when planning a particular outcome. Know how to be digitally discerning when evaluating the effectiveness of own work and the work of others. Research an aspect of Roman life using multiple websites and evaluate results. Are they in agreement or are there differences between sites? Children to create presentation using publisher or equivalent.
Design and Technology	**Different materials and components** have a range of properties, making them suitable for different tasks. It is important to select the correct material or component for the specific purpose, depending on the design criteria. Recipe ingredients have different tastes and appearances. They look and taste better and are cheaper when in season. **Design** **Yr 3/4** Know how to develop more than one design or adaptation of an initial design that would successfully fulfil the brief.

	Know how to plan a sequence of actions to make a product. Know how to use prototypes to develop and share ideas. Know how to think ahead about the order of their work and decide upon tools and ingredients. Know how to propose realistic and thought through suggestions as to how they can achieve their design ideas. Know how to consider and justify aesthetic qualities of materials chosen. **Yr 5/6** Know how to list tools needed before starting the activity. Know how to plan the sequence of work e.g. using a storyboard. Know how to record ideas using annotated diagrams. Know how to devise step by step plans (including recipes) which can be read /followed by someone else. Know how to carry out simple market research. Know how to consider resource costs and availability. Know how to develop a clear rationale for why the chosen design was picked from a range of other designs which would have fitted the design brief. **Make** **Yr 3/4** Know how to use tools with accuracy and begin to use independently. Know how to select from techniques for different parts of the process. Know how to plan the stages of the making process. Know how to use appropriate finishing techniques with increasing understanding of the importance of this.

	Yr 5/6 Know how to research information to inform decisions. Know how to produce detailed lists of ingredients and tools. Know how to select from and use a wide range of tools. Know how to use appropriate finishing techniques for the project. Know how to refine their product, without prompting, – review and rework / improve. Know how to develop one idea in depth and justify why they have developed the chosen idea. **Evaluate** **Year 3/4** Know how to investigate similar products to the one to be made to give starting points for a design and begin to explain how their product will be unique (Roman Banquet research). Know how to improve products during the making process to help analyse and understand how products are made. Know how to discuss how well the finished product meets the design criteria of the user. Know how to offer constructive advice to peers and accept constructive advice in return. **Yr 5/6** Know how to research and evaluate existing products – including book and web based research. Know how to consider user and purpose and return to it periodically. Know how to give a report using correct technical vocabulary. Know how well the finished product meets the design criteria of the user and discuss.

	Know how to present evaluations pictorially and in writing. Know how to seek product testers in order to improve product during manufacture. **Food** Know how to develop sensory vocabulary/knowledge using smell, taste, texture and feel. Know how to analyse the taste, texture, smell and appearance of a range of foods – predominantly savoury. Know how to follow instructions/recipes Know how to make healthy eating choices – discuss the Eatwell Plate (consider in Roman times). Know how to join and combine a range of ingredients. Know how to explore seasonality of vegetables and fruit (consider in Roman times). Know how to find out which fruit and vegetables are grown in countries/continents studied in History/Geography (within Roman Empire). Know how meat/fish are reared/caught. Know how to prepare food products taking into account the propeities of ingredients and sensory characteristics. Know how to weigh and measure using scales. Know how to select and prepare foods for a particular purpose. Know how to use a range of cooking techniques. Know where and how ingredients are grown and processed. Know how to use a heat source safely and hygienically. Know the need for keeping food prep areas tidy and clean. Key Activity – Plan, design and hold a Roman Banquet for parents or fellow pupils.

	Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable. Know that Roman technology influenced the progress of countries they invaded, and many ideas have survived to modern day or been developed: aqueducts, toilets, roads, underfloor and central heating. Know the sorts of designs the Romans decorated items with or what pictures had significant meaning to them. Were there any symbols particularly linked to the Roman Army in Exeter? Optional Activity - Make a Roman shield out of corrugated cardboard investigating the shape and pattern of the designs. Evaluate different designs from Roman and Saxon times.

When reviewing our curriculum rolling programme we considered the key aspects of our CURRICULUM INTENT as:

To provide a curriculum which encourages pupils, within a supportive Christian environment, to aspire to reach their full potential. This will be achieved through experiential learning, using the richness of our local rural community and culture, but also by opening the children's eyes further to gain knowledge about, and see the opportunities in, the wider British, European and global contexts.

Cycle D	**Term 2 - Spring**
What are the key pieces of knowledge we want children to remember, be able to build upon and to reflect on within each subject area of this topic **Text in this colour relates to key pieces of knowledge linked specifically to our Curriculum Intent.** **Text in this colour describes example activities to support the main theme of the topic.**	
Main Topic	**Traders and Raiders (History)**
History	**Anglo-Saxons and Scots from Ireland** invaded Britain to fight and capture land and goods because the Romans had left. Anglo-Saxons also wanted to find farmland after flooding in Scandinavia. They wanted to make new homes and settlements and eventually settled in kingdoms, first across the south-east and eastern England and then across the whole country. These kingdoms later became the counties of Kent, Sussex, Wessex, Middlesex and East Anglia. **The Viking invasion and Anglo-Saxon defence of England led** to many conflicts. In AD 878, the Anglo-Saxon king, Alfred the Great, made peace with the Vikings, who settled in Danelaw in the east of England. Over time, the Anglo-Saxons defeated the remaining Viking rulers and the Vikings in England agreed to be ruled by an Anglo-Saxon king. **Historical artefacts** can reveal much about the object's use or owner. For example, highly decorated artefacts made of precious materials and created by highly skilled craftsmen suggest the owner was wealthy and important, whereas simple objects made of readily available materials suggest the owner was poor and unimportant.

	Children to know 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. Examples include; **The Domesday Book** and how it was created after the Norman invasion and conquest of England in 1066, the **Domesday Book** was commissioned in December 1085 by order of William The Conqueror. William needed to raise taxes to pay for his army and so a survey was set in motion to assess the wealth and assets of his subjects throughout the land. **Chronology** **Yr 3/4** Know how to describe ways of life that are typically associated with a period. Know how to compare and contrast how some groups lived in the past compared with others. Know how to explain religious change in England and give possible reasons. Know how to explain how different cultural beliefs impacted on key aspects of life such as buildings. Know how to explain where common modern misconceptions can come from i.e. Vikings wearing horns on helmets. Know how to explain the significance of some royal struggles. **Yr 5/6** Know how to plot significant events on a timeline including antecedents. Know how to describe historical significance of historical findings. Know how to describe in detail significant events and why they were significant. Know how to explain the significance of some Royal struggles (1066). **Historical Enquiry** **Yr 3/4**

	Know how to identify and give reasons for what is likely to be accurate representation of time periods and which are not. Know how to use primary and secondary sources to research an idea. Know how to synthesise sources to give possible reasons. Know why archaeologists find certain sources of significant importance. Know how to interpret primary sources of history with some independence (e.g. Domesday Book). Know how to make judgements about what primary sources tell us about life during periods studied and begin to consider bias. Know how to begin to independently combine the use of a range of primary and secondary sources to construct layouts of buildings. Know how to use evidence to make a judgement about achievements. **Yr 5/6** Know how to use evidence to explain changes between time period studied and modern day. Know how to make reasoned judgements on ancient artefacts and compare to modern understandings by published historians. Know how to evaluate a range of primary and secondary sources in order to construct a mostly independent argument. Know why some findings are of greater significance than others. Know how to formally critique the validity of primary and secondary sources. Know how to understand how artefacts may be misleading. Know to how to begin to independently combine the use of a range of primary and secondary sources to construct plans and layouts of buildings (e.g. Domesday Book). **Interpretations of History**

	Yr 3/4 Know why archaeologists think what they do and explain whether they agree. Know why some people living during studied period had different viewpoints. Know how to make reasoned arguments for what may have been in private correspondence based on following actions. Know how to decide upon and justify whether they think a significant character was great. **Yr 5/6** Know the qualities they feel make a good ruler. Know how to make a reasoned judgement on whether a historically significant event is fact or fiction. **Continuity and Change** **Yr 3/4/5/6** Know how to compare the relative small number of people present in the same area from ancient history and modern day. Know how to compare and contrast the homes of people from two groups of people who followed each other chronologically (understand how people lived depended on the culture of their own lands and not the land they were coming to). **Cause and Consequence** **Yr 3/4/5/6** Make a judgement on the impact of harsh treatment on a group of people/population. **Similarities and Differences** **Yr 3/4/5/6** Know how to compare and contrast and explain some key ways in which life changed for Britains during the specific period.

	Know how to explain with evidence how some wealthy classes in some civilisations have sought to influence lower classes. Know how to evaluate how Christianity impacted upon ordinary people compared with Lords and noblemen. **Significance** **Yr 3/4/5/6** Know how to explain why a historical period is considered significant. Know why some battles have become significant in the view of English historians. When the Romans were in Exeter, the newly founded town thrived and became a centre of trade and industry in the Southwest. The Empire later fell in the 400's AD. Later came the Saxon King Alfred the Great who set-up work in the city and established Exeter as one of the most active and large cities of the century. Look closely at the Roman walls in Northernhay gardens and you will see reconstruction by the Saxons. The Roman wall played a large part in Medieval times e.g. it held out the Vikings who arrived in 1001AD and even restricted an attack by William the Conqueror in 1086 when he tried to claim Exeter. By the 9th century, the major threat to peace in Devon came from Viking raiders. To confound them, Alfred the Great refortified Exeter as a defensive burh, followed by new erections at Lydford, Halwell and Pilton, although these fortifications were relatively small compared to burhs further east, suggesting these were protection for only the elite. The Battle of Pinhoe was a battle between the Danes and the Dumnonians of Pinhoe, Devon. In 1001 Vikings laid a siege to Exeter. But due to the strong fortification of Athelstan they started pillaging nearby villages. Men from Devon and Somerset fought the Danes to stop their invasion. The battle was hard and the defenders nearly used up all their ammunition. Changes over time can happen rapidly or slowly and are affected by the desire for people to change, their beliefs, the availability of resources and technology, and social and economic circumstances. Research groups from AD 600 onwards. Explain the cause, consequence and impact of invasion and settlement in Britain. Littleham is an old Saxon settlement established before the Norman Conquest, and Littleham is mentioned in the Domesday book. Research the origins of Saxon and Norman place names and Littleham in the Domesday book. What would be included now? Can children create a large map and key / glossary?

Geography	**Significant rivers of the UK include the** Thames, Severn, Trent, Dee, Tyne, Ouse and Lagan. Significant mountains and mountain ranges include Ben Nevis, Snowdon, Helvellyn, Pen y Fan, the Scottish Highlands and the Pennines. **Fieldwork techniques,** such as sketch maps, data collection and digital technologies, can provide evidence to support and answer a geographical hypothesis. **The four cardinal directions** are north (N), east (E), south (S) and west (W), which are at 90° angles on the compass rose. The four intercardinal (or ordinal) directions are halfway between the cardinal directions: north-east (NE), south-east (SE), south-west (SW) and north-west (NW). **Locational Knowledge** **Yr 3/4** Know the difference between the British Isles, Great Britain and UK. Know the countries that make up the European Union. **Yr 5/6** Know the names of the rivers of the UK – Tamar, Exe, Mersey, Axe, Thames, Wye, Severn, Great Ouse, Trent, Ouse, Tyne, Tweed. Know the names and locations of the world's most famous mountain ranges (including UK). **Place Knowledge** **Yr 3/4/5/6** Know how to carry out research to discover features of villages and which villages have names derived from Saxon words. **Skills, Maps Work and Field Work** **Yr 3/4/5/6** Know how to use maps and atlases appropriately by using contents and indexes. Know how to use and compare historical maps of varying scales.

	Use maps of Europe to identify countries from which the Viking raiders came. Draw a sketch map of Europe to show their findings. Discover the importance of the city of York. Find out where the Saxon invaders settled in Britain, searching for towns and villages that have names derived from Saxon words. Draw a sketch map of England to show where these towns and villages are located. Use maps, including those online, to locate Saxon shore forts, built by the Romans in the middle of the 3rd century to repel the seaborne Saxon raiders. Make a sketch map of Britain, showing the shore forts as well as identifying nearby towns, rivers, estuaries and other significant geographical features.
Science	**Scientists** classify living things according to shared characteristics. Animals can be divided into six main groups: mammals, reptiles, amphibians, birds, fish and invertebrates. These groups can be further subdivided. Classification keys are scientific tools that aid the identification of living things. **A life cycle** is the series of changes in the life of a living thing and includes these basic stages: birth, growth, reproduction and death. Mammals' life cycles include the stages: embryo, baby, adolescent and adult. Amphibians' life cycles include the stages: egg, larva (tadpole), adolescent and adult. Some insects' (butterflies, beetles and bees) life cycles include the stages: egg, larva, pupa and adult. Birds' life cycles include the stages: egg, baby, adolescent and adult. **Living things** are classified into groups, according to common observable characteristics and based on similarities and differences. **Living Things and Their Habitats** **Yr 3/4** Know that living things can be grouped in different ways according to their features. Know the names of living things living in a range of habitats giving the key features that helped them to identify them. Know how classification keys can be used to identify and name living things. Know that living things live in a habitat which provides an environment to which they are suited. Know that environments may change naturally e.g. through flooding, fire and earthquakes. Know how humans can also cause the environment to change in a positive way, such as setting up nature reserces or in a negative way such as littering.

	Know that these environments also change with the seasons and that different living things can be found in a different habitat at different times of the year. **Yr 5/6** Know that as part of their life cycle, plants and animals reproduce. Know that most animals reproduce sexually. Know how animals reproduce sexually involving two parents where the sperm from the male fertilises the female egg. Know that animals, including humans, have offspring which grow into adults. Know that in humans and some animals, these off spring will be born live, such as babies or kittens and then grow into adults. Know that in some animals, such as chickens or snakes, there may be eggs laid that hatch into young which then grow into adults. Know that some young undergo a further change before they become adults e.g. caterpillars to butterflies. Know that this is called metamorphosis. Know that plants reproduce both sexually and asexually. Know that bulbs, tubers, runners and plantlets are examples of asexual plant reproduction which involves only one parent plant. Know that gardeners force plants to reproduce asexually by taking cuttings. Know that sexual reproduction occurs through pollination, usually involving wind or insects carrying insects. Know that living things can be formally grouped according to characteristics. Know that plants and animals are the two main groups but there are other living things that do not fit into these groups for example, microorganisms such as bacteria and yeast and toadstools and mushrooms. Know that plants can make their own food whereas animals cannot. Know that animals can be divided into two groups; those that have a backbone (vertebrates) and those that do not (invertebrates).

	Know that vertebrates can be divided into five small groups; fish, amphibians, reptiles, birds and mammals. Know that each group has common characteristics and to name these. Know that invertebrates can be divided into a number of groups, including insects, spiders, snails and worms. Know that plants can be divided broadly into two main groups; flowering plants and non-flowering plants. **Plants** **Yr 3/4/5/6** Know that many plants, but not all, have roots, stems/trunks, leaves and flowers/blossom and identify these on a range of different plants. Know that the roots absorb water and nutrients from the soil and anchor the plant in place. Know that the stem transports water and nutrients/minerals around the plant and holds the leaves and flowers up in the air to enhance photosynthesis, pollination and seed dispersal. Know how the leaves use sunlight and water to produce the plant's food and know that this process is called photosynthesis. Know that some plants produce flowers which enable the plant to reproduce. Know that pollen, which is produced by the male part of the flower, is transferred between the female part of other flowers (pollination). Know that this process forms seeds and that these seeds are sometimes contained in berries or fruits which are then dispersed in different ways. Know that different plants require different conditions for germination and growth. **Knowledge of Working Scientifically** ***Living Things and Their Habitats*** **Yr 3/4**

	Know how to ask a range of questions linked to a topic. Know how to begin to look for naturally occurring patterns and relationships. Know how to make a range of relevant observations using simple equipment with support. Know how to present observations in labelled diagrams. Know how to present data in bar charts. Know how to prepare own tables to record data. Know where appropriate provide oral or written explanations for their findings. Know how to take accurate measurements using standard units where not all the numbers are marked on the scale. Take repeated readings where necessary. Know how to refer directly to evidence when answering questions. Know how to use results from an investigation to make a prediction about a further result. Know how to draw simple conclusions when appropriate for patterns. Know how to be able to ask a range of yes/no questions which work together to aid sorting. Know how to put appropriate headings onto Carroll diagrams. Know when and how secondary sources might help to answer questions that cannot be answered through practical investigations and choose a source from a range provided. Know how to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. **Yr 5/6** Know how to being to explore ideas and ask own questions about scientific phenomena.

	Know how to begin to plan different types of scientific enquiry to answer questions. Know how to choose suitable sources and begin to separate opinion from fact. Know how to begin to recognise which secondary sources will be most useful to research their ideas. Know how to choose an appropriate form of presentation including scatter graphs. Know how to answer their questions using scientific evidence gained from a range of sources. Know how to separate opinion from fact in conclusions. Know how to be able to talk about their degree of trust in the sources they used. Know how to identify scientific evidence that has been used to support or refute ideas or arguments. Know how to be able to ask a range of yes/no questions, which work together to aid sorting. Know how to identify specific clear questions that will help to sort without ambiguity using keys. Know how to be able to put appropriate headings onto Carroll diagrams. Know how to answer their questions identifying patterns. Know how to provide oral or written explanations for their findings. Know how to explain their degree of trust in their results including the precision in taking measurements and accuracy of results. Know how to apply knowledge of previous enquiry to compare and classify. Know how to create branching databases (tree diagrams) and keys to enable others to names living things and objects. Know how to explain using evidence that the branching database or classification key will only work for the living things or materials it was created for.

	Plants ***Yr 3/4/5/6*** Know how to ask a range of questions linked to a topic. Know how to begin to look for naturally occurring patterns and relationships. Know how to make a range of relevant observations using simple equipment with support. Know how to present observations in labelled diagrams. Know how to present data in bar charts. Know how to prepare own tables to record data. Know how to provide oral or written explanations for their findings.
Art and design	**Use of Sketchbook** **Yr 3/4** Know how to use their sketchbooks to adapt and improve their original ideas. Know how to use their sketchbooks to show knowledge and art history they have learnt. **Yr 5/6** Know how to use their sketchbooks to show how ideas have developed and improved. Know how to use their sketchbooks to show knowledge and art history they have learnt. Know how to reflect on their work and its meaning and purpose. **Drawing**

	Yr 3/4 Know how to use line, tone, scale, texture and depth and demonstrate in their pieces. Know how to use mirrors, viewfinders, magnifying glasses to aid observations. Know and feel confident with showing facial expressions and body language in their drawings. Know how to be able to draw for a sustained period of time (30 mins). **Yr 5/6** Know how to create a collection of drawings around a theme. Know how to use their skills to draw simple objects using texture. Know how to organise line, tone, shape and colour to represent figures and forms in movement. Know how to use shade to show mood and feeling. Know how to be able to draw for a sustained period of over one session. Know that they can sketch to communicate emotions. **Textiles** **Yr 3/4/5/6** Know that you can join fabrics or create designs using a variety of stitches including – running stitch, back stitch, cross stitch, blanket stitch. Know that the Bayeux Tapestry tells the epic story, in wool thread embroidered on linen cloth, of William, Duke of Normandy who became King of England in 1066 after the Battle of Hastings. Know that there are different types of stitches including running stitch, cross stitch and blanket stitch.

	Know that we can repair clothing by stitching and adjusting rather than throw it away, helping the environment. Know that The Exeter Rondels take the form of a series of embroidered cushions, over seventy metres in length, lining the sides of the nave in Exeter Cathedral. Greater in length than the famous tapestry at Bayeux, The Exeter Rondels form a chronological story of national, local and church history. Visitors walking through the nave will follow the main events of the past, told through the words and pictures interwoven on the Rondels. Every monarch is recorded along with the Deans and Bishops of Exeter (up until 1989) together with their dates. Battles, coronations and great events of British history are all revealed through a richly-coloured tapestry of over 14 million individual stitches. Draw their own simple scene from the story in the Bayeux Tapestry, or a piece of recent news, in the style of the Bayeux Tapestry. Design how this can be recreated on Binca. Practise the stiches listed above and use them to create a mini Bayeux Tapestry panel.
Music	**Improvisation** **Yr 3/4/5/6** Know that improvisation is making up your own tunes on the spot. Know that when someone improvises they make up their own tune that has never been heard before. It is not written down and belongs to them. Know that using one or two notes confidently is better than using five. Know that if you improvise using the notes you are given, you cannot make a mistake. Know that you can use some of the riffs you may have heard, in your improvisations. Know how to improvise using instruments within the theme of the piece of music. Know how to listen and sing back melodic patterns using instruments. Know how to take it in turns to improvise using one note. Know how to listen and copy back using instruments, using two different notes (Yr 5/6 – 3 notes). Know how to take it in turns to improvise using one or two notes (Yr 5/6 – 3 notes).

	Children create their own improvisations using classroom tuned instruments and percussion to accompany a chosen scene from the Bayeux Tapestry.
Computing	**Handling Data** **Yr 3/4** Know how to collect data in order to answer a question, planning what needs to be collected. Know some different ways in which data can be organised. Know how to collect data and identify where it could be inaccurate. Know how to plan, create and search a database to answer questions. Know how to organise data in different ways. Know how to justify the choices that have been made when presenting data in a certain way, explaining the effectiveness of the choice that has been made. **Yr 5/6** Know how to collect data, identify where it could be inaccurate and suggest how it could be checked. Know how to present data in an appropriate way. Know how to use a spreadsheet to collect and record data. Know how to plan the process needed to investigate the world around me. Know how to select the most effective tool to collect data for my investigation. Know how to check the data I collect for accuracy and plausibility. Know how to present the data I collect in an appropriate way.

	Collect data linked to other areas of learning (Science Classification) and present it in a variety of ways.
Design and Technology	Mechanisms can be used to add functionality to a model. For example, sliders or levers can be used in moving pictures, storybooks or simple puppets; 3-D moving toys or pictures. **Design** **Yr 3/4** Know how to develop more than one design or adaptation of an initial design that would successfully fulfil the brief. Know how to plan a sequence of actions to make a product. Know how to record the plan by drawing using annotated sketches. Know how to begin to use exploded diagrams. Know the importance of and use prototypes to develop and share ideas. Know how to think ahead about the order of their work and decide upon tools and materials considering limitations of time and availability. Know how to propose realistic and thought through suggestions as to how they can achieve their design ideas. Know how to use CAD where appropriate to model and communicate ideas. **Yr 5/6** Know how to list the tools needed before starting the activity. Know how to plan the sequence of work e.g. using a storyboard. Know how to record ideas using annotated diagrams. Know how to combine modelling and drawing to refine ideas. Know how to devise step by step plans which can be read / followed by someone else.

	Know how to sketch and model alternative ideas. Know how to decide which design idea to develop. Know how to use accurately drawn exploded diagrams and cross sectional diagrams to communicate ideas. Know how to have a sense of the design process. **Make** **Yr 3/4** Know how to cut slots. Know how to prepare pattern pieces as templates for their design. Know how to cut internal shapes with growing precision and understand that it will impact on the quality of the finish. Know how to justify selection from a range of tools for cutting, shaping, joining and finishing. Know how to use tools with accuracy and being to use them independently. Know how to select from techniques for different parts of the process. Know how to select from materials according to their functional properties with growing independence. Know how to plan the stages of the making process. Know how to use appropriate finishing techniques with increasing understanding of the importance of this. **Yr 5/6** Know how to make prototypes. Know how to develop one idea in depth and justify why they have developed the chosen idea.

	Know how to use researched information to inform decisions. Know how to produce detailed lists of components / materials / tools. Know how to select from and use a wide range of materials. Know how to use appropriate finishing techniques for the project. Know how to cut accurately and safely to lines independently marked out. Know how to refine their product without prompting – review and rework/improve. **Evaluate** **Yr 3/4** Know how to research the needs of the user and understand its vital importance to the manufacturing process. Know how to draw/sketch products to help analyse and understand how products are made. Know how to improve products during the making process in response to feedback. Know how to discuss how well the finished product meets the design criteria of the user. Know how to decide which design idea to develop. Know how to consider and explain how the finished product could be improved. Know how to be able to offer constructive advice to peers and accept constructive advice in return. **Yr 5/6** Know how to consider user and purpose. Know how to identify strengths and weaknesses of their design ideas and include in evaluations. Know how to give a report using technical vocabulary and making accurate reference to processes and tools used.

	Know how to consider and explain how the finished product could be improved related to design criteria. Know how to present evaluations pictorially and in writing. **Mechanical and Electrical Systems** **Yr 3/4/5/6** Know how to develop vocabulary related to the project. Know how to use mechanical systems such as gears, pulleys, levers and linkages. Know how to incorporate a circuit into a model. Know how to use systems such as switches, bulbs and buzzers. Know how to use sticks/card to make levers and linkages. Know how to use ICT to control products. Know and understand that mechanical and electrical systems have inputs > processes > outcomes. (Yr 5/6) Know and understand electrical systems used in products. (Yr 5/6) Create early Motte and Bailey castles in the grounds using natural materials. Using the example of the pop-up Castle book with its flaps, moving images and sounds children to design and recreate their own one or two pages of a pop-up book depicting an element of castle life. The page should include mechanical systems e.g. levers, and a circuit to create a light (representing a log fire) or buzzer (a guard blowing a horn when someone arrives).

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Cycle D	**Term 3 - Summer**
What are the key pieces of knowledge we want children to remember, be able to build upon and to reflect on within each subject area of this topic **Text in this colour relates to key pieces of knowledge linked specifically to our Curriculum Intent.** **Text in this colour describes example activities to support the main theme of the topic.**	
Main Topic	**Flow (Geography)**
History	**The lives of people in the Stone Age, Bronze Age and Iron Age** changed and developed over time due to the discovery and use of the materials stone, bronze and iron. These developments made it easier for people to farm, create permanent settlements and protect their land. **Chronology** **Yr 3/4** Know how to describe ways of life that are typically associated with a period. **Yr 5/6** Know how to compare and contrast how some groups lived in the past compared with others. Know how to sequence settlements in local areas. **Historical Enquiry** **Yr 3/4** Know how to use artefacts to construct a historical argument.

	Know how to use primary and secondary sources to research an idea. Know how to synthesise sources to give possible reasons. Know how to independently combine and use a range of primary and secondary sources to construct layouts of buildings. **Yr 5/6** Know how to explain changes between time period studied and modern day. **Continuity and Change** **Yr 3/4** Know how to compare the relative small number of people present in the same area from history and modern day. Know how to compare and contrast the home sof people from two groups of people who followed each other chronologically. Work in small groups to brainstorm ideas for the question, 'Why have people historically settled by rivers?' Discuss, share and compare their ideas. Use a UK map to find a local or nationally significant town or city situated next to or on a river and use the web and historical source materials to find out why it grew as a settlement. Look at Exeter and towns in the local area, many of which are settlements along rivers and at river mouths, look at Exmouth and the River Exe. Topsham, Lympstone are two examples of settlements on the River Exe that could be investigated as well as Exeter itself.
Geography	**Locational Knowledge** **Yr 3/4** Know the names and location of the capital cities of neighbouring European countries. Know and locate some of the world's mega cities. **Yr 5/6** Know the names of the rivers of the UK.

	Know the names and locations of the world's major rivers on maps – Volga, Danube, Rhine, Yangtze, Ganges, Yellow, Nile, Congo, Mississippi, Amazon. Know the names of capital cities of Europe and major cities around the world. **Place Knowledge** **Yr 3/4** Know how to link words to topic e.g. river, meander, flood, plain, location, industry, transport. Know how to carry out research to discover features of cities and villages. Know why people may choose to live in a village rather than a city and vice versa. **Yr 5/6** Know how to link words to theme e.g. river, erosion, deposition, transportation, coasts, confluence, tributary. Know why many cities of the world are situated by rivers and why this makes it an attractive location. **Human Features** **Yr 3/4** Know how to describe and compare different human features of a place, offering explanations for the locations for some of these features. **Yr 5/6** Know why many cities of the world are situated by rivers and why this makes it an attractive location. **Physical Features** **Yr 3/4** Know how to sequence and explain features of a physical weather process such as the water cycle.

	Yr 5/6 Know why many of the cities of the world are situated by rivers and why this makes it an attractive location. Know how to describe the physical features of rivers. **Skills, Maps Work and Fieldwork** **Yr 3/4** Know how to draw and use more detailed field sketches and diagrams, using symbols for a key. Know how to observe, measure and record the human features in the local area responding to a range of geographical questions. Know how to use maps and atlases appropriately by using contents and indexes. Know how to use some basic OS map symbols. Know how to understand and. Use 4 and 6 figure grid references. Know how to locate and name geographical features on an Ordnance Survey map. Know how to collect and analyse data from first and second hand sources, identifying and analysing patterns and suggesting reasons for them. Know how to accurately measure and collect information. Know how to communicate in ways appropriate to task and audience. **Yr 5/6** Know how to collect and record evidence. Know how to present information on map overlays to show levels of information. Know how to use 6 figure grid references.

	Know how to analyse and draw conclusions e.g. from fieldwork data on land use comparing land use and temperature. Know how to look for patterns and explain reasons behind them. Know how field sketches should show understanding of pattern, movement and change. Know how to use maps, aerial photos, plans and web resources to describe what a locality might be like. Know how to use OS maps to answer questions. Know how to recognise key symbols used on ordnance survey maps. Find the location of the river or stream visited using an Ordnance Survey or digital map. Follow its course, noting significant physical features, such as its source, mouth and tributaries and observe and read their four-figure grid references. Mark the physical features on a printed or photocopied version of the map. Plot human features along its course, including local towns or cities, to show where the river flows in relation to human settlements. Visit a local stream or river to find out more about its characteristics. Can children find the answers to geographical questions, such as 'What river features can be seen? Which animals and plants live there? How fast does the river flow? What is the soil like in the area? Is there any human activity taking place along the river?' Where does the river flow fastest? Collect soil and water samples from various locations along the river bank to take back to school for further investigation. Help children to spot and name the river's fascinating physical features, like meanders, oxbow lakes and tributaries.
Science	**An adaptation** is a physical or behavioural trait that allows a living thing to survive and fill an ecological niche. Adaptations evolve by natural selection. Favourable traits help an organism survive and pass on their genes to subsequent generations. **Scientists compare fossilised remains** from the past to living species that exist today to hypothesise how living things have evolved over time. Humans and apes share a common ancestry and evidence for this comes from fossil discoveries and genetic comparison. The Jurassic Coast consists of Triassic, Jurassic and Cretaceous cliffs, spanning the Mesozoic Era, documenting 185 million years of geological history. In East Devon, the coastal cliffs consist of steep cliffs of red sandstone from the Triassic and, at Budleigh Salterton, the gravel cliffs contain red quartzite pebbles which accumulate on the beach below as Budleigh pebbles, locally protected. Further east at Ladram Bay, more sandstone cliffs give rise to spectacular red sandstone stacks. Mary Anning is a famous palaeontologist who lived in Lyme Regis, she became known around the world for finds she made in Jurassic marine fossil beds in the cliffs in Lyme Regis. **Soils** are made from tiny pieces of eroded rock, air and organic matter. There are a variety of naturally occurring soils, including clay, sand and silt. Different areas have different soil types.

	The water cycle has four stages: evaporation, condensation, precipitation and collection. Water in lakes, rivers and streams is warmed by the Sun, causing the water to evaporate and rise into the air as water vapour. As the water vapour rises, it cools and condenses to form water droplets in clouds. The clouds become full of water until the water falls back to the ground as precipitation (rain, hail, snow and ice). The fallen water collects back in lakes, rivers and streams. Evaporation and condensation are caused by temperature changes. **An observation** involves looking closely at objects, materials and living things, which can be compared and grouped according to their features. **Evolution and Inheritance** **Yr 3/4/5/6 (aimed at 5/6)** Know that all living things have offspring of the same kind, as features in the offspring are inherited from the parents. Know that due to sexual reproduction, the offspring are not identical to their parents and vary from each other. Know that plants and animals have characteristics that make them suited (adapted) to their environment. Know that if the environment changes rapidly, some variations within species may not suit the new environment and will die. Know that if the environment changes slowly, animals and plants with variations that are best suited survive in greater numbers to reproduce and pass their characteristics on to their young. Know that over time, these characteristics become more dominant within the population. Know that over a very long period of time, these characteristics may be so different to how they were originally that a new species is created and that this is evolution. Know that fossils give us evidence of what livesd on the Earth millions of years ago and provide evidence to support the theory of evolution. Know that more recently scientists such as Darwin and Wallace observed how living things adapt to different environments to become distinct varieties with their own characteristics. **Rocks** **Yr 3/4/5/6**

	Know that rock is a naturally occurring material. Know that there are different types of rock e.g. sandstone, limestone, slate etc which have different properties. Know that rocks can be hard or soft. Know that different rocks have different sizes of grain or crystals. Know that some rocks may absorb water. Know that rocks can be different shapes and size (stones, pebbles and boulders). Know that soils are made up of pieces of ground down rock which may be mixed with plant and animal material (organic material). Know that the type of rock, size of rock pieces and the amount of organic matter affect the property of the soil. Know that some rocks contain fossils. Know that fossils were formed millions of years ago. Know that when plants and animals died, they fell to the seabed, became covered and squashed by other material. Know that over time, dissolving animal and plant matter is replaced by minerals from the water. **States of Matter** **Yr 3/4/5/6** Know that melting is a state change from solid to liquid. Know that freezing is a state change from liquid to solid. Know that the freezing point of water is 0 degrees C. Know that boiling is a change of state from liquid to gas that happens when a liquid is heated to a specific temperature and bubbles of the gas can be seen in the liquid.

	Know that water boils when it is heated to 100 degrees C. Know that evaporation is the same state change as boiling (liquid to gas), but it happens quickly if the temperature is higher, the liquid is spread out or it is windy. Know that condensation is the change back from a gas to a liquid caused by cooling. Know that water at the surface of the seas, rivers etc evaporates into water vapour (a gas). Know that this rises and cools and condenses back into a liquid forming clouds. Know that when too much water has condensed, the water droplets in the cloud get too heavy and fall back down as rain, snow, sleet etc and drain back into rivers etc. This is known as precipitation. This is the water cycle. **Knowledge of Working Scientifically** ***Rocks*** **Yr 3/4/5/6** Know how to ask a range of questions linked to a topic. Know how to choose what to change. Know how to make a range of relevant observations using simple equipment with support. Know how to present observations in labelled diagrams. Know how to be able to compare objects based on more sophisticated, observable features (classification). Know how to present data in bar charts. Know how to prepare own tables to record data. Know how to present learning verbally or using labelled diagrams.

	States of Matter **Yr 3/4/5/6** Know how to independently ask a range of relevant questions that will provide useful results linked to a topic. Know how to think of more than one variable factor. Know how to be able to put appropriate headings onto Carroll diagrams. Know how to make systematic and careful observations. Know how to decide what data to collect to identify naturally occurring patterns and relationships. Know how to choose what to measure or observe. Set up practical enquiries, comparative and fair tests. Know how to help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. Know how to use notes, simple tables and standard units to present results. Know how to look for changes, patterns, similarities and differences in their data in order to identify new questions arising from the data, make new predictions. Know how to say what was found out linking cause to effect. ***Evolution and Inheritance*** **Yr 5/6** Know how to identify when questions asked are most appropriately answered through research. Know how to find things out using a wide range of secondary sources of information identifying the reliability of different sources. Know how to recognise which secondary sources will be most useful to research their ideas. Know how to choose how to record data from a choice of familiar approaches.

	Know how to identify the degree of trust in findings. Identify scientific evidence that has been used to support or refute ideas or arguments. Know how to describe and evaluate their own and other people's scientific ideas related to topic, using evidence from a range of sources. Know how to use test results and previous scientific knowledge to make predictions for further investigations asking specific, relevant questions. Know how to explain their degree of trust in their results including variables that may not have been controlled and accuracy of results using appropriate scientific language and ideas from the National Curriculum. Compare the colour and contents of the soil samples collected during their river visit. Use hand lenses and digital microscopes to take a close look at the samples. Quarter fill clear jam jars with the soil samples, adding water so the jars are half full. Mix thoroughly with a clean spoon, screw the lid on firmly, then shake well. Leave the jars overnight, then examine the settled layers, measuring and recording their depths. Record their observations in a table or graph and explain how and why the soil samples are similar or different. The soils separate out according to the particle size, with the largest particles at the bottom. Stones and sand are the biggest and weigh the most so sit at the bottom, next is silt, then clay, then water and finally organic matter, which will float on the top. Layer depth will vary, with the soil type (sandy, silty, loamy or clay) being the predominant layer. Watch animations of the water cycle to identify the four main stages (evaporation, condensation, precipitation and run-off). Work in pairs to talk it through using a diagram or model and referring to information texts and the web wherever they need clarification. Use a range of given picture cards to sequence the cycle, adding captions and labels to each picture. Review the water cycle process using an IWB, encouraging children to evaluate their success in sequencing the stages. Children could use clipart or downloaded images to create a digital presentation of the cycle, adding captions and label. The Met Office is located in Exeter, visit the Met Office for further understanding of the water cycle and weather forecasting.
Art and design	**Use of Sketchbook** **Yr 3/4** Know how to use their sketchbooks to express likes and dislikes about a subject. Know how to use sketchbooks to record initial ideas and observations.

	Know how to use their sketchbook to show knowledge and art history they have learnt. **Yr 5/6** Know how to use their sketchbooks to show how ideas have developed and improved. Know how to use annotations in the sketchbook to show what further changes they would make. Know how to use their sketchbook to show they have discussed their ideas with others. Know how to write detailed notes about pieces of work. Know how to make explicit reference to methods and skills used in artwork they have created or artwork of others. Know how to reflect on their work and its meaning and purpose. Know how to use their sketchbook to show knowledge and art history they have learnt. **Collage** **Yr 3/4** Know how to cut more complex shapes accurately. Know how to arrange different sized strips of paper can achieve various effects. Know the difference between positive and negative imagery and how to use it in own pieces. **Yr 5/6** Know how to select materials by colour and texture according to desired outcome. Know how to layer and overwork my pieces. **Colour** **Yr 3/4**

	Know how to use tint and shades for different purposes. Know how to analyse and describe colour in artists work. Know how to express feelings and emotions through colour. **Texture** **Yr 3/4** Know how to analyse and describe texture with artists' work. Know how to express complex textures using a range of materials. **Yr 5/6** Know how to know and develop an understanding of texture through practical making activities. Know how artists manipulate materials to create texture. **Tone** **Yr 3/4/5/6** Know how to use tone effectively and with control. Know and use a variety of tones to create different effects. Whilst on a trip to a local river take photos of the view which can be used as inspiration for a river collage in the style of an artist they have researched.
Music	**As soon as George Frideric Handel got his first job** as court composer to a German prince, he headed for England. Through a bizarre twist of royal succession, that prince ended up becoming King of England. Instead of staying angry at Handel for leaving Germany, King George I asked him to compose music for a huge party he held on barges on the River Thames. In response, **Handel composed the Water Music**. **The Water Music is a collection** of orchestral movements, often published as three suites (in F major, in D major, and in G major). It premiered on 17 July 1717, in response to King George I's request for a concert on the River Thames.

	Composition **Yr 3/4/5/6** Know that a composition is music that is created by you and kept in some way. Know that composition is like writing a story. Know that compositions can be played or performed again to others. Know that there are different ways of recording compositions – letter names, symbols, audio etc. Know how to create at least one simple melody using 1,3 or 5 different notes. Know how to plan and create a section of music that can be recorded using notation and performed within the context of the theme. Know how to talk about how the music was created. Know how to listen and reflect upon the developing composition and make musical decisions about pulse, rhythm, pitch, dynamics and tempo. Know how to record the composition in any way appropriate that recognises the connection between sound and symbol (e.g. graphic/pictorial notation) **Playing** **Yr 3/4/5/6** Know and be able to talk about the instruments used in class e.g. recorder, xylophone. Know and be able to talk about other instruments they might play or be played in a band or orchestra or by their friends. Know how to treat instruments with care and respect. Know how to rehearse and perform their part within the context of group composition.

	Know how to listen and follow musical instructions from a leader. **Yr 5/6** Know and be able to talk about different ways of writing music down e.g. staff notation, symbols. Know the notes C,D,E,F,G,A,B,and C on the treble stave. **Dimensions of Music** **Yr 3/4/5/6** Know, and be able to make appropriate choices for the musical dimensions in an Ocean Composition in relation to pulse, rhythm, pitch, texture, instrument choice. Know how to create musical ideas for the group to copy or respond to. Children listen to sections of Handel's Water Music. How is 'water' represented? Children use musical vocabulary to discuss what they have heard e.g. rhythm, melody, volume, sections of the orchestra etc. Children compose their own Water Music based on the local rivers that they have visited. Improvise and compose sequences of sounds and vocals and record them using notes or pictures, some beginning to use staff notation. Compose their music individually or in pairs using a range of stimuli and developing their musical ideas into a completed piece. Improve their work through analysis, evaluation and comparison. Perform using notation as a support, to an audience.
Computing	Know simple terminology concerned with programming. (Scratch – sprite, backdrop, block, coding, script) Know how to use programming to move sprites on a screen. Know the correct terminology for Scratch. For example; "Atomic" meaning the ability for custom blocks to run without screen refresh, BYOB meaning a commonly used acronym for the Scratch Modification Build Your Own Blocks, Duplicate — to copy and create another, Simulation - A kind of project which attempts to recreate or model a real-life circumstance, such as a simulation of balls bouncing. **Programming** **Yr 3/4** Know how to break a problem into smaller parts in order to achieve an outcome.

	Know how to put programming commands into a sequence to achieve a specific outcome. Know that a problem in an algorithm could result in unsuccessful programming and detect these within an algorithm. Know how to use repeat commands to repeat a section of code. Know how to describe the algorithm that is needed in order to complete a simple tasks. Know how to test a program and recognise when debugging is required. Know how to use an efficient procedure to simplify a program. Know that programs need to be constantly tested while being built and that debugging is a continual process throughout the programming stage. Know a variety of tools to create a program. Know how to recognise an error in a program and debug it effectively, talking about the corrective actions taken. **Yr 5/6** Know how to decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program. Know how to refine a procedure using repeat commands to improve a program. Know that variables can be used to increase programming possibilities. Know how to change an input to a program to achieve a different output. Know how to use 'if' and 'then' commands to select an action. Know how to use logical and reasoning to detect and debug mistakes in a program. Know how to deconstruct a problem into smaller steps, recognising similarities to solutions used before.

	Know how to explain and program each of the steps in an algorithm. Know how to evaluate the effectiveness and efficiency of an algorithm while continually testing the programming of that algorithm. Know when to use a variable to achieve a required output. Know how to use a variable and operators to stop a program. In mixed age groups, use Scratch to make a submarine move on a background – story animation. Success criteria to evaluate if children are able to use logical thinking to solve an open-ended problem by breaking it in to smaller parts. Were children able to keep testing a programme while putting it together?
Design and Technology	**Levers** consist of a rigid bar that rotates around a fixed point, called a fulcrum. They reduce the amount of work needed to lift a heavy object. Sliders move from side to side or up and down, and are often used to make moving parts in books. Axles are shafts on which wheels can rotate to make a moving vehicle. Cams are devices that can convert circular motion into up-and-down motion. Nestled into the valley, Branscombe Mill draws water from the nearby leat to turn its huge wheel. The Mill we see today has been standing since the nineteenth century, and is one of four mills that used to be in operation. But the history of milling at Branscombe stretches much further back, with millers living and working here since the Middle Ages. In its full glory the Mill would have been a very busy place, from harvest time right through to spring. The mill would also grind wheat, barley and oats for animal feed, and it was used up until just before the Second World War. It's likely that Manor Mill would have once provided the flour for the village bakery, but it fell into disrepair after WW2. **Design** **Yr 3/4** Know how to develop more than one design or adaptation of an initial design that would successfully fulfil the brief. Know how to plan a sequence of actions to make a product. Know how to record the plan by drawing using annotated sketches. Know how to begin to use exploded diagrams.

	Know the importance of and use prototypes to develop and share ideas. Know how to think ahead about the order of their work and decide upon tools and materials considering limitations of time and availability. Know how to propose realistic and thought through suggestions as to how they can achieve their design ideas. Know how to use CAD where appropriate to model and communicate ideas. **Yr 5/6** Know how to independently draw on a range of sources to help formulate design ideas. Know how to list the tools needed before starting the activity. Know how to plan the sequence of work e.g. using a storyboard. Know how to record ideas using annotated diagrams. Know how to combine modelling and drawing to refine ideas. Know how to devise step by step plans which can be read / followed by someone else. Know how to sketch and model alternative ideas. Know how to decide which design idea to develop. Know how to use accurately drawn exploded diagrams and cross sectional diagrams to communicate ideas. Know how to have a sense of the design process. **Make** **Yr 3/4** Know how to cut slots. Know how to cut internal shapes.

	Know how to prepare pattern pieces as templates for their design. Know how to cut internal shapes with growing precision and understand that it will impact on the quality of the finish. Know how to justify selection from a range of tools for cutting, shaping, joining and finishing. Know how to use tools with accuracy and being to use them independently. Know how to select from techniques for different parts of the process. Know how to select from materials according to their functional properties with growing independence. Know how to plan the stages of the making process. Know how to use appropriate finishing techniques with increasing understanding of the importance of this. **Yr 5/6** Know how to make prototypes. Know how to develop one idea in depth and justify why they have developed the chosen idea. Know how to use researched information to inform decisions. Know how to produce detailed lists of components / materials / tools. Know how to select from and use a wide range of materials. Know how to use a computer to model ideas. Know how to use appropriate finishing techniques for the project. Know how to cut accurately and safely to lines independently marked out. Know how to refine their product without prompting – review and rework/improve.

	Evaluate **Yr 3/4** Know how to investigate similar products to the one to be made to give starting points for a design. Know how to research the needs of the user and understand its vital importance to the manufacturing process. Know how to draw/sketch products to help analyse and understand how products are made. Know how to research the needs of the user. Know how to improve products during the making process in response to feedback. Know how to discuss how well the finished product meets the design criteria of the user. Know how to decide which design idea to develop. Know how to consider and explain how the finished product could be improved. Know how to be able to offer constructive advice to peers and accept constructive advice in return. Know how to investigate key events and individuals in Design and Technology. **Yr 5/6** Know how to research and evaluate existing products, including book and web based research. Know how to consider user and purpose. Know how to identify strengths and weaknesses of their design ideas and include in evaluations. Know how to give a report using technical vocabulary and making accurate reference to processes and tools used. Know how to consider and explain how the finished product could be improved related to design criteria. Know how to present evaluations pictorially and in writing and using appropriate mathematical skills.

	Structures **Yr 3/4/5/6** Know how to use the correct terminology for tools, materials and processes. Know how to create shell or frame structures. Know how to strengthen frames with diagonal struts. Know how to give structures more stability by giving them a wide base. Know how to measure and mark square section, strip and dowel accurately to 1cm (Yr 5/6 - 1mm) **Yr 5/6** Know how to mark hole positions accurately. Know how to use hand drill to drill tight and loose fit holes. Know how to join materials using appropriate methods. Know how to build frameworks to support mechanisms. **Mechanical and Electrical Systems** **Yr 3/4/5/6** Know how to develop technical vocabulary related to the project. Know how to use mechanical systems such as cams, gears, pulleys, levers and linkages. Know how to use sticks/card to make levers and linkages. Know how to use ICT to control products.

	Find out what hydropower is and explain how this renewable energy source has been used, both in the past and today. Visit Branscombe Mill as well as looking at pictures, animations and videos of water wheels in action to understand how they work, before designing and making their own. Work in pairs to make and test their water wheel. Suggest how their models could be improved and made more effective.