Year 4 – Long Term Plan 2021-22

	Autumn 1	Autumn 2
Main line of enquiry	Who invented that?	Were the Anglo Saxons smashing?
Supplementary questions		
Science	**Electricity** **Knowledge** Identify common appliances that run on electricity Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit Recognise some common conductors and insulators, and associate metals with being good conductors **Skills** Set up simple practical enquiries, comparative and fair tests. Record findings using simple scientific language, drawings, labelled diagrams, keys and tables Report on findings from enquiries, including written explanations and presentations of results and conclusions. Use results to draw simple conclusions (investigations- Does a circuit need a power source?). **Vocabulary** Cells, wires, bulbs, switches, circuit, buzzers, conductors, insulators, plug, socket and safety. **Sound** **Knowledge** Identify how sounds are made, associating some of them with something vibrating Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between the pitch of a sound and features of the object that produced it Find patterns between the volume of a sound and the strength of the vibrations that produced it	

	Recognise that sounds get fainter as the distance from the sound source increases **Skills** Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables *(Does the distance affect the volume of a sound? Investigation)* **Vocabulary** Vibrations, volume, data logger distance, travel, air, waves, ear, eardrum, auditory canal, auditory nerve, cochlea, outer ear, pitch, quiet, loud, high and low	
History		**British settlement by Anglo Saxons and Scots.** **Knowledge** Examples include: Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire Britain's settlement by Anglo-Saxons and Scots. Examples include: Scots invasions from Ireland to north Britain (now Scotland) Anglo-Saxon invasions, settlements and kingdoms: place names and village life Anglo-Saxon art and culture Christian conversion – Canterbury, Iona and Lindisfarne **Skills** Place events from period studied on a time line. Use terms related to the period and begin to date events. Understand more complex terms e.g. BC/AD (Timeline) Use evidence to reconstruct life in time studied. Identify key features and events look for links and effects in time studied. (Anglo-Saxon life research) Offer a reasonable explanation for some events. Develop a broad understanding of ancient civilisations. Use evidence to build up a picture of a past event. Choose relevant material to present a picture of one aspect of life in time past. Communicate their knowledge and understanding. (The biography of Alfred the Great) Look at the evidence available begin to evaluate the usefulness of different sources.

		Use of text books and historical knowledge. (Anglo-Saxon religion and research using iPads and textbook) Recall, select and organise historical information (Alfred the Great timeline and inferring). **Vocabulary** Soldier, invade, settlement, jewellery, shield, sword, helmet, AD, Hastings, battle, Angles, Christianity, Pagans, punishment, kingdom, trade, Denmark, Sweden, Norway and pillage.
Geography		**Anglo Saxon and Scots' movement patterns and settlements – see also geography objectives from Spr 1 - links** **Knowledge** Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water **Skills** Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features and land-use patterns; and understand how some of these aspects have changed over time. Locate the world's countries, using maps to focus on Europe (including the location of Russia) key physical and human characteristics, countries, and major cities. **Vocabulary** hills, mountains, coasts and rivers
Art / DT	DT – **Mini Robots** **Knowledge** To know which materials and tools are needed to create a mini robot. To understand how to adjust the design (following testing) to ensure the dimensions are correct for the main body & the design is stable. To evaluate and decide on what improvements they would make to their design from their own and a collaborative viewpoint. **Skills** Create a written / drawing for a design with annotations and test mini robots main body design with paper to check it will fit onto the base without restricting movement and how it will be fixed in place / stable – problem solving. Use tools and equipment safely to effect an appealing, purposeful and functional design. **Vocabulary**	**Chalk and Charcoal Drawings of the Iron Man - Line, Shape, Shading, Texture** **Knowledge** To explore the art and imagery used in Art works created by illustrators whose work is inspired through literature and storytelling. The techniques the Artists and Illustrators have used and their significance in Art. **Skills** Record from first hand observation, experience and imagination Ask and answer questions about the starting points for their work. Understand materials and processes used in making art, illustration, craft and design.

	Design, make, evaluate, (potential/movement) energy, materials, tools, equipment, safety, improve.	Create illustrative art work inspired by the story The Iron Man and the illustrations created by artists inspired by the literary work. **Vocabulary** Scale, proportion, accurate, painting, ink, dye, textiles, pencils, crayon, pastels, tint, tone, shading, texture and mark making.
English	**Stimulus/Novel** – ***The Iron Man – Ted Hughes*** Poetry – (Descriptive Poetry) **Fiction** – Narrative (Writing the next part of the story)	**Stimulus/Novel** – ***The Iron Man – Ted Hughes*** **Non – Fiction** –Newspaper Report, Diary
Enrichment Activities	LegoLand	

	Spring 1	**Spring 2**
Main line of enquiry	Were the Vikings victorious and vicious?	When is water not water?
Supplementary questions		
Science		**States of Matter** **Knowledge** Compare and group materials together, according to whether they are solids, liquids or gases Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. **Skills** Record findings using simple scientific language, drawings, labelled diagrams and tables (sorting materials, particles, heating and cooling, state of water observation) Set up simple practical enquiries, comparative and fair tests (Investigation- Which fizzy drink has the most carbon dioxide?) Make systematic and careful observations and, where appropriate, take accurate measurements using thermometers. Identify differences, similarities or changes related to simple scientific ideas and processes. (Does the temperature affect how fast towels dry?)

		Make predictions for new values, suggest improvements and raise further questions **Vocabulary** Solids, liquids, gas, degrees Celsius, evaporation, condensation, particles, melting, melting point, freezing, water vapour, material and vibration.
History	**The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor.** **Knowledge** Examples include Viking raids and invasion Resistance by Alfred the Great and Athelstan, first king of England Further Viking invasions and Danegeld Anglo-Saxon laws and justice Edward the Confessor and his death in 1066 **Skills** Place events from period studied on a time line. Use terms related to the period and begin to date events. Understand more complex terms e.g. BC/AD. (timeline) Use evidence to reconstruct life in time studied. Identify key features and events look for links and effects in time studied. Offer a reasonable explanation for some events. Develop a broad understanding of ancient civilisations. (research on various aspects of Viking life, e.g. Viking voyages, Danegeld, etc.) Look at the evidence available begin to evaluate the usefulness of different sources. Use of text books and historical knowledge. Use evidence to build up a picture of a past event. Choose relevant material to present a picture of one aspect of life in time past. (King Edward the Confessor Newspaper article) Ask a variety of questions. (Hot seating activity) Use the library, e-learning for research. Recall, select and organise historical information. (Newspaper article/timeline) Communicate their knowledge and understanding. (Newspaper article) **Vocabulary** **Raids, settlements, invasion, pagans, armour, sailors, Danegeld, law, justice, Dane-law, Lindisfarne, Kings, Wessex, trade.**	

Geography	**Where Anglo Saxons/Vikings came from, how they got here, why did they settle here?** Geographical skills and fieldwork***. Eg – physical features. Objectives also link to those in Aut 2)*** **Knowledge** Locate the world's countries, using maps to focus on Europe (including the location of Russia) concentrating on their environmental regions, key physical and human characteristics, countries, and major cities **Skills** Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied Use the 8 points of a compass, 4- and 6-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world. **Vocabulary** Settlements, kingdom, Denmark, Sweden and Norway, United Kingdom, Europe, Russia, Lindisfarne, towns, villages and England.	
Art / DT	**Art - Bayeaux Tapestry** **Knowledge** To explore the art and embroidery used In the Bayeux Tapestry and the story it tells of the Norman conquest including the relevant dates and history in which it was created. The techniques the story tellers and artists used and their significance in the history of art. **Skills** Record from first hand observation, experience and imagination Ask and answer questions about the starting points for their work. Understand materials and processes used in making art, craft and design. Sort objects according to material, colour and shape. Put objects together to create a story picture. **Vocabulary** Anglo-Saxon, arrow, battle, cavalry, conqueror, embroidery, England, France, Battle of Hastings, Normandy, Normans, tapestry and yarn.	DT- Making high fibre biscuits **Knowledge** To know which products/foods can help us to increase the fibre in our diets. To know the potential consequences of not getting sufficient fibre in the diet -> stomach ache/constipation/obesity (if you don't feel full you will continue to eat even if that contains more than your daily energy requirement). To know what the difference is between standard and wholegrain ingredients -> more processing to remove the bran of the wheat. To know why we need to ensure that the biscuit mixture is evenly divided -> cooks at the same time. **Skills** Explore and evaluate a typical child's diet to identify foods/ingredients which contain fibre and then rank. Create an adapted recipe for a high fibre biscuit which includes a cross sectional diagram with some annotation, including a list of ingredients. Use tools and equipment safely with the correct technique (e.g. mixing/beating/dividing) to produce their product. Demonstrate clear understanding of hand hygiene and safety prior to any food handling/practical activity. **Vocabulary** Eatwell Guide / Balance, Fibre, Wholegrain, Wholemeal, Digestive tract, Constipation, Absorption, Peristaltic, Waste product, Satiety.

English	**Stimulus:** ***Viking at school – Jeremy Strong*** **Narrative:** Play Script **Non-fiction** : Biography	**Stimulus:** ***Viking at school – Jeremy Strong*** **Narrative:** (write an alternative ending) **Non-fiction:** Recounts - School council minutes Poetry – Beowulf, Kennings
Enrichment Activities	Viking Workshop	

	Summer 1	**Summer 2**
Main line of enquiry	Why are rainforests important for us all?	**How did the Kingdom of Benin become part of the British Empire?**
Supplementary questions		
Science	**Living things and their habitats** **Knowledge** Recognise that living things can be grouped in a variety of ways Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Recognise that environments can change and that this can sometimes pose dangers to living things **Skills** Ask relevant questions and use different types of scientific enquiries to answer them. Gather, record, classify and present data in a variety of ways to help in answering questions (Grouping animals and classification keys). Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables (animal groups- Venn diagram, food chains) **Vocabulary**	

	Climate, Polar, Temperate, Arid, Tropical, Mediterranean, Mountains, equator, rainforest, deforestation, canopy, understory, forest floor, emergent, Venn diagram, tropics of Cancer and Capricorn. **Animals, including humans** **Knowledge** Describe the simple functions of the basic parts of the digestive system in humans Identify the different types of teeth in humans and their simple functions Construct and interpret a variety of food chains, identifying producers, predators and prey **Skills** Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Use straightforward scientific evidence to answer questions or to support their findings (animal groups- Venn diagram, food chains) **Vocabulary** Food chains, producer, predator, prey, molar, premolar, incisor, wisdom, teeth, canine, salivary glands, gall bladder, duodenum, large intestines, rectum, anus, small intestine, pancreas, stomach, liver, oesophagus, tongue, mouth, fish, reptiles, birds, mammals, amphibians.	
History		**Benin** **Knowledge** The culture contrasts with that of British society. After Benin empire started trading with European merchants it would eventually become a British colony itself and form part of the British empire. The Benin Empire made great achievements in pre-European years including technology, architecture, astronomy and town-planning. Benin went into decline during the 18th century CE as the kingdom was racked by civil wars, and it was ultimately conquered by the British in 1897 CE. Palm oil is now the world's most popular vegetable oil, accounting for one-third of global consumption. This demand has impacted the environment causing deforestation to increase. **Skills** Make comparisons with previously studied time periods (Anglo-Saxons and Vikings) e.g. religion and rulers. Explore a range of sources to see

		what life was like then and compare it to now. Place events from the period studied on a timeline. Use terms related to the period and begin to date events. Understand more complex terms, e.g. BCE/CE. How the art of the Benin society challenged the world's perception of African art. Identify key features and events, look for links and effects in time studied. Offer a reasonable explanation for some events. Develop a broad understanding of ancient civilisations. **Vocabulary** Ancestor, banish, citizen, civil war, fable, exile, empire, slave, symbol, oil palms, sacred, rituals, shrine.
Geography		**Benin** **Knowledge** Place knowledge - understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country and a region within North or South America (Place study – rainforests) **Skills** Identify the position and significance of Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn (Rainforest) **Vocabulary** Human and physical geography Describe and understand key aspects of: Physical geography, including: climate zones, biomes and vegetation belts, rivers and mountains, Savannah, coral, Gourd (one of various plants related to pumpkins and melons which produce a fruit with a hard shell), Molten, oil palms, plateaus.
Art / DT	**Rainforest drawings- Art** **Knowledge** To explore imagery used in Art works created by artists whose work is inspired through observing the natural world found in the rainforest. The children will also identify the techniques the rainforest artists have used and their significance in the history of art. **Skills** Record from first hand observation, experience and imagination. Children are to ask and answer questions about the starting points for their work.	**Rainforest Artists – screen printing- DT** **Knowledge** To be able to name two types of printing. To know what a screen printing is and how to create something using one. To name and identify which materials and tools they need/use for this task. **Skills** Research and explore to find a wide range of screen printed products i.e. not just clothing, other industries too. Identify design criteria for a

	Understand materials and processes used in making art, craft and design. Sort objects according to material, colour and shape. To create a piece of observational art work or a piece of design inspired by the nature found in the rainforest. **Vocabulary** Observe, tropical, plants, animals, marks, outline, charcoal, chalk pastels, blend, smudge, scruffito.	successful screen printed product. Create a written / drawing for a design with clear annotation *e.g. explain the stencilling/design used and its significance.* Create a stencil which can be used as a silhouette with the screen ensuring the correct orientation if using letters/numbers. Use tools (glue/screen/scissors) and equipment safely and accurately to effect an appealing, purposeful and functional design with a clear target market. Support children who demonstrate fine motor skills to try one or more of the following: *(a) create more detailed designs with multiple silhouettes.* *(b) sketch the design onto the screen by hand and then hand paint the decoupage medium to create a silhouette (this would only be for exceptionally advanced artists)* **Vocabulary** Screen print /Ink / Design / Stencil / Sealing / Embroidery Hoops / Silhouette / Mortise mask / Sheer woven fabric / Decoupage medium
English	**Stimulus:** ***The Great Kapok Tree - Lynne Cherry*** **Narrative:** Persuasive Writing **Poetry:** Animal Poetry	**Stimulus:** ***Stories from another culture –Rama and Sita*** **Non-Fiction:** Fact File **Narrative**: Setting Description
Enrichment Activities	London Zoo	

Art and Design

To create sketch books to record their observations and use them to review and revisit ideas
To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
About great artists, architects and designers in history

Design and Technology
Design
Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make
Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate
Investigate and analyse a range of existing products
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
Understand how key events and individuals in design and technology have helped shape the world

Technical knowledge
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
Apply their understanding of computing to program, monitor and control their products.

Geography
Locational knowledge
Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time
Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)

Place knowledge

Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region in North or South America

Human and physical geography

Describe and understand key aspects of:

Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle

Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water

Geographical skills and fieldwork

Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied

Use the 8 points of a compass, 4- and 6-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world

Use fieldwork to observe, measure record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies

History

Changes in Britain from the Stone Age to the Iron Age. Examples include:

Late Neolithic hunter-gatherers and early farmers, for example, Skara Brae

Bronze Age religion, technology and travel, for example, Stonehenge

Iron Age hill forts: tribal kingdoms, farming, art and culture

The Roman Empire and its impact on Britain. Examples include:

Julius Caesar's attempted invasion in 55-54 BC

The Roman Empire by AD 42 and the power of its army

Successful invasion by Claudius and conquest, including Hadrian's Wall

British resistance, for example, Boudica

'Romanisation' of Britain: sites such as Caerwent and the impact of technology, culture and beliefs, including early Christianity

British settlement by Anglo Saxons and Scots. Examples include:

Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire

Britain's settlement by Anglo-Saxons and Scots. Examples include:

Scots invasions from Ireland to north Britain (now Scotland)

Anglo-Saxon invasions, settlements and kingdoms: place names and village life

Anglo-Saxon art and culture

Christian conversion – Canterbury, Iona and Lindisfarne

The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor. Examples include
Viking raids and invasion
Resistance by Alfred the Great and Athelstan, first king of England
Further Viking invasions and Danegeld
Anglo-Saxon laws and justice
Edward the Confessor and his death in 1066

A local history study. Examples include
A depth study linked to one of the British areas of study listed above
A study over time tracing how several aspects of national history are reflected in the locality (this can go beyond 1066)
A study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality.

A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066. Examples include
The changing power of monarchs using case studies such as John, Anne and Victoria
Changes in an aspect of social history, such as crime and punishment from the Anglo-Saxons to the present or leisure and entertainment in the 20th Century
The legacy of Greek or Roman culture (art, architecture or literature) on later periods in British history, including the present day
A significant turning point in British history, for example, the first railways or the Battle of Britain

The achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China Ancient Greece – a study of Greek life and achievements and their influence on the western world

A non-European society that provides contrasts with British history – one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.

Science

States of Matter
Compare and group materials together, according to whether they are solids, liquids or gases
Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Electricity
Identify common appliances that run on electricity
Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit

Recognise some common conductors and insulators, and associate metals with being good conductors

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

Living things and their habitats
Recognise that living things can be grouped in a variety of ways
Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
Recognise that environments can change and that this can sometimes pose dangers to living things

Animals, including humans
Describe the simple functions of the basic parts of the digestive system in humans
Identify the different types of teeth in humans and their simple functions
Construct and interpret a variety of food chains, identifying producers, predators and prey