




Littleham CE Primary School Year 6 Rolling Programme



	Term 1 - Autumn	Term 2 – Spring	Term 3 - Summer
	Hola Mexico! 	Darwin's Delights 	Frozen Kingdom 
Key Vocabulary Tier 3 words Tier 2 words	ancient, burrito, cactus, chilli , civilisation, Day of the Dead, desert, fajita, guacamole, mariachi band, Maya deity, Maya glyphs, Maya stelae, Maya temple, Mexico , taco, tortilla	adaptation, artificial selection, cloning, DNA, endangered species, evolution, extinct, fossil , genetic engineering, habitat , inheritance, naturalist, natural selection, species , specimen, trait, variation	antarctic, Arctic , Aurora Australis, Aurora Borealis, climate , expedition, explorer, food chain, freeze, glacier, habitat, ice, iceberg, ice sheet, icicle, igloo , Inuit people, North pole, ocean, RMS Titanic, seabed, settlement, sledge, snow, snow storm, snowdrift, South pole, temperature, tundra

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<p>Project overview</p>	<p>Welcome to Mexico! Get ready to explore this unique country, from its towering temples and stunning geography to its pulsing rhythms and fun-packed festivals. Tummy rumbling? Concoct a traditional fruit cocktail or delicious Mexican meal. What's on your shopping list? Go steady with the spices! Discover the mysterious world of the ancient Maya civilisation. Make their chocolate, learn their poetry, play their ball game and follow all their curious rituals. Just try to keep your head! Feel like celebrating? Design a flute, grab a drum, join a tribe and make some noise! Have you got what it takes to be chief? Let's find out...</p>	<p>Ship ahoy! We're off on an exciting expedition with Charles Darwin and his crew on <i>HMS Beagle</i>. Can you trace his route across the vast ocean? Stop at the magical Galápagos Islands to see the amazing species that helped Darwin develop his theory of evolution by natural selection. Do you know what's so special about a lava lizard, or why the blue-footed booby has blue feet? See how animals adapt to their environment over time and meet some of the world's greatest explorers and naturalists! Imagine how humans will evolve in millions of years. It's a scary thought! Ready to trace the origin of species? Let's set sail!</p>	<p>Welcome to the planet's coldest lands. Vast wilds and hostile territories – incredibly beautiful, yet often deadly. Take shelter from the elements or fall prey to icy winds and the deepest chill. Trek bravely and valiantly across treacherous terrain to the ends of the Earth, treading deep in snow or be pulled by a team of mighty sled dogs. Be alert, for magnificent mammals roam these lands, sometimes hungry or fresh for a fight. Perhaps a hungry polar bear or an Arctic fox is hunting rodents, as swift as the wind! Research facts and figures of climate, temperature, habitats and ecosystems, and compose evocative poems about the Northern Lights. Become part of an Antarctic rescue team, braving the elements to rescue terrified passengers from a ship struck by a deadly berg that hides deep beneath the Southern Ocean. So wrap up well everyone and settle by the fire. I'm just going outside and may be some time.</p>
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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.

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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	Hola Mexico!
History	<p>The characteristics of the earliest civilisations include cities, governments, forms of writing, numerical systems, calendars, architecture, art, religion, inventions and social structures, many of which have influenced the world over the last 5000 years and can still be seen in society today.</p> <p>The Maya were a group of indigenous people who lived in Mexico and other parts of Central America over 3000 years ago. The Maya were experts in farming, pottery, writing and Maths. Around AD 900, the Maya civilisation began to decline, and the people moved into small villages, rather than staying in great cities they had built. There are still some Maya people today who follow the lifestyle, language and traditions of ancient Maya.</p> <p>Chronology</p> <p>Know how to create timelines of the period studied – these should include events going on in other areas of the world at the same time as the time period being studied.</p> <p>Historical Enquiry</p> <p>Know the region in the world in which Maya people live.</p> <p>Know, through explanation, the purpose of the ancient Maya city of Chichen Itza,</p> <p>Know the system of terraced farming used by the Maya in mountainous areas and explain why this method helped to stop the previous soil being eroded or washed away.</p> <p>Know what the landscape, climate and natural vegetation of Maya area is like.</p> <p>Know the occupations of modern Maya people.</p>

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	<p>Know how to refer to primary evidence to know the lost jungle cities of the Maya and reach a judgement as to their purpose, justifying their reasoning.</p> <p>Know the purpose of a range of ancient Maya artefacts – including stone carvings, hieroglyphs, clay and stone pottery and figurines and ornaments – justifying conclusions.</p> <p>Interpretations of History</p> <p>Know the likely cause of the gradual abandonment of the Maya jungle cities and justify their conclusions.</p> <p>Continuity and Change</p> <p>Know how to compare and contrast occupations from a specific period and now.</p> <p>Similarities and Differences</p> <p>Know the social and religious importance of the Maya ball game pok -a- tok.</p> <p>The schools are all located in areas that have important farming communities. Devon and Cornwall are also important places for pottery and clay production. Look at the differences and similarities between the Maya people and the way in which we perform these tasks today.</p> <p>Look at a range of images that illustrate aspects of ancient Maya civilisation. Work in pairs to talk about what they can find and develop a list of questions that would form the basis of further research work.</p> <p><i>Note: There is debate about how to use the term 'Maya' or 'Mayan'. In academic use, 'Mayan' is restricted to referring to their languages; 'Maya' is the adjectival form used for non-linguistic aspects. We have followed this convention in our project, although when searching for online resources you may use either term.</i></p>
Geography	<p>The Northern Hemisphere is the part of Earth that is to the north of the equator. The Southern Hemisphere is the part of Earth that is to the south of the equator. The Prime Meridian is the imaginary line from the North Pole to the South Pole that passes through Greenwich in England and marks 0° longitude, from which all other longitudes are measured.</p> <p>Compass points can be used to describe the relationship of features to each other, or to describe the direction of travel. Accurate grid references identify the position of key physical and human features.</p>

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The distribution of and access to natural resources, cultural influences and economic activity are significant factors in community life in a settlement.

Mexico is located in the south of the continent of North America. It has diverse landscapes that includes mountains, rainforests and deserts. This means that its climate is also very varied and there are a wide range of plants and animals found there, including many types of cacti and over 700 species of reptile. Some people live in rural communities whilst others live in big cities. Mexico City is the capital of Mexico. It is home to nearly nine million people, with a vibrant, diverse population and a rich heritage.

Locational Knowledge

Know and revise the capital cities of Europe and major cities from around the world, including the capitals of USA, Canada, South America, most European cities, India, Kenya, Egypt, New Zealand, Australia, Japan, China, Pakistan.

Know and revise the naming of cities and countries in North, Central and South America (Venezuela, Colombia, Ecuador, Peru, Bolivia, Chile, Guyana, Suriname, Guatemala, Paraguay, Brazil, Uruguay, Galapagos Islands) and locating on a world map and atlas.

Know how to explain how the time zones work.

Place Knowledge

Know how to link words to theme e.g. settlement, urban, rural, land use, sustainability, rivers, confluence, tributary, rainforest, desert.

Human Features

Know how to give an extended description of the human features of different places around the world.

Physical Features

Know how to describe how some places are similar and others are different in relation to their physical features.

Skills, Maps Work and Fieldwork

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	<p>Know how to ask questions: what is this landscape like?, how is it changing?, what patterns can you see / how has the pattern changed?</p> <p>Know how to analyse evidence and draw conclusions e.g. from field work data on land use comparing land use and temperature.</p> <p>Know how to look for patterns and explain the reasons behind them.</p> <p>Know how to identify and explain different views of people including themselves and justify in detail.</p> <p>Know how to communicate in ways appropriate to task and audience e.g. use email to exchange information about locality with another of our federation schools.</p> <p>Know that field sketches should show understanding of pattern, movement and change.</p> <p>Know how to use maps, aerial photos, plans and web resources to describe what a locality might be like – locate information / place with speed and accuracy and use key to make deductions about landscape / industry / features etc</p> <p>Know how to use OS maps to answer questions.</p> <p>Know and recognise key symbols used on ordnance survey maps.</p> <p>Exmouth town established itself during the 18th Century and is regarded as the oldest holiday resort in Devon.</p>
<p>Science</p>	<p>A shadow appears when an object blocks the passage of light. Apart from some distortion or fuzziness at the edges, shadows are the same shape as the object. The distortion or fuzziness depends on the position or type of light source.</p> <p>Know how shadows are formed and that it is because light travels in straight lines.</p> <p>Light</p> <p>Know that light travels in straight lines and that we see objects when light from them goes into our eyes.</p> <p>Know that light may come directly from light sources, but for other objects some light must be reflected from the object into our eyes for the object to be seen.</p>

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	<p>Know that objects that block light (are not fully transparent) will cause shadows.</p> <p>Know that as light travels in straight lines, the shape of the shadow will be the same as the outline shape of the object.</p> <p>Knowledge of Working Scientifically</p> <p>Know how to use appropriate scientific language to communicate his/her methods.</p> <p>Know how to choose how to record data from a choice of familiar approaches.</p> <p>Know how to use test results and previous scientific knowledge to make predictions for further investigations asking specific, relevant questions.</p> <p>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.</p> <p>Know how to look for different causal relationships in their data and identify evidence that refutes or supports their ideas. Use their results to identify when further tests and observations are needed.</p> <p>Build on learning from Y3 about safety and the sun as well as shadows are formed from the blocking of light. Link shadows with Stargazers from Y5. Shadows change throughout the day and the year according to the height of the sun and the tilt of Earth. Use torches at different angles to measure shadows and link to the seasons.</p> <p>Using a bright LED torch, conduct an investigation to explore patterns in the size and shape of an object's shadow, recording results in a spreadsheet. Predict other values using the data collected.</p> <p>Children to work with a partner and take in turns to draw around their shadow. Can they distort the shape? How? Children to also stand on a marked spot on the playground and at intervals through-out the day using different colour chalk draw their shadow. Why is it different at 11.00 am and 2pm? Children to consider the direction of sunlight.</p>
<p>Art and design</p>	<p>A 3-D form is a sculpture made by carving, modelling, casting or constructing.</p> <p>Use of Sketchbook</p>

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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 other children's work) and its meaning and purpose.

Know how to use their sketchbook to show knowledge and art history they have learnt.

3D Art

Know how to use Modroc

Colour

Know how to express feelings and emotions through colour.

Form

Know how to describe and model form in 3D.

Know how to express and articulate a personal message through sculpture (through analysing and studying artists' use of form).

Pattern

Know how to represent feelings and emotions through pattern.

Día de los Muertos is similar to All Hallows' Eve, All Saints' Day and All Souls' Day in western Christian rituals.

Look at images from Día de los Muertos (Day of the Dead), celebrated from 31st October–2nd November. Make 3-D Day of the Dead skulls by using mod-roc by attaching a facial former.

Paint with a range of beautiful patterns and bright colours.

Use of Sketchbook

Know how to write detailed notes about pieces of work.

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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 other children's work) and its meaning and purpose.

Know how to use their sketchbook to show knowledge and art history they have learnt.

Drawing

Know how to make a collection of drawings around a theme.

Know how to use hard and soft lines to show the detail in the distance, foreground and avoid using a rubber.

Know how to use their skills to draw objects including texture.

Know how to use simple perspective using a single focal point.

Painting

Know about their preferred style and create their own piece.

Know how to explain why they've chosen specific painting techniques.

Know how to add texture into paint by adding PVA, sawdust, sand etc.

Know how to use brushes in different ways with thickened paint.

Colour

Know how to express feelings and emotions through colour.

Tone

Know how to use tone effectively and with control.

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	<p>Know simple shading rules.</p> <p>Know and use a variety of tones to create different effects.</p> <p>Know how to create 3D effects using tone.</p> <p>Know how to use tone when drawing with an increasing sophistication.</p> <p>Know how to create light and shade, contrast, highlight and shadow.</p> <p>Consider the skyline of the City of Mexico. Look at the building styles and different shapes. Look at how the City of Mexico has been portrayed by some artists. Consider perspective when drawing buildings or skylines. Choose a building from Mexico, or a building in a British city to paint.</p>
Music	<p>Genres are different styles of music, such as pop, rock, world music, classical, Latin American, swing, gospel and soul. Words such as tempo, rhythm, dynamics, pulse and timbre can be used to comment on the genre of music.</p> <p>Suggestions for improvements to musical performances include more practice; strategies to cope with performance pressure; better presentation, including eye contact with the audience; improving the planning and logistics of a performance and confidently introducing pieces and songs.</p> <p>Gestures in music include eye contact, waving and beckoning to the audience, closing eyes to show emotion or exaggerated movements, such as a flourish at the end of a piece or movement away from the microphone. Some gestures are associated with different types of music, such as exaggerated movements to the pulse of the music and virtuoso guitar playing during rock musical performances.</p> <p>Expression in music means adding feeling and is indicated in musical scores using words, such as <i>dramatico</i> (in a dramatic, exaggerated style), <i>legato</i> (smoothly and connected), <i>tranquillo</i> (quiet and peaceful) and <i>cantabile</i> (in a singing or flowing style).</p> <p>Music is very important in Mexican culture and is always part of a celebration, whether big or small. Music and dance are essential to the culture of Mexico. Each region of Mexico has traditional dances that are accompanied by music and feature colourful costumes. One well known type of music is called Mariachi, which is performed by a group of musicians playing violins, trumpets and guitars. A traditional Mexican song is La Cucaracha, which means 'The Cockroach'.</p>

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Listen and Appraise

Know 5 pieces of music (from local and Mexican traditions), who sang or wrote them, when they were written and why.

Know the style of the music.

Know the meaning of any lyrics.

Know, and be able to talk about, any musical dimensions featured – texture, dynamics, tempo, rhythm, pitch and timbre.

Know how to identify the structure of the music (intor, verse, chorus etc).

Know the names of some of the instruments in the music.

Know the historical context of the music.

Know how to identify and move to the pulse with ease.

Know how to compare two pieces in the same style, talk about what stands out – similarities and differences.

Know how to listen carefully and respectfully to other people's opinions about the music.

Know how to use musical vocabulary when talking about the music.

Know how to talk about the musical dimensions working together.

Know how to talk about the music and how it makes you feel, using musical language to describe the music.

Improvisation

Know and be able to talk about improvisation.

Know that using one, two or three notes confidently is better than using five.

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	<p>Know that if you improvise using the notes you are given, you cannot make a mistake.</p> <p>Know that you can use riffs and licks learnt in musical games within improvisations.</p> <p>Know three well known improvising musicians.</p> <p>Know how to create suitable improvisations using tuned and untuned instruments to be performed for a Mexican festival.</p> <p>Know how to include 'copying back' ideas within the improvisation.</p> <p>Investigate and explore the traditional music and dances that can be found in Mexico and our local area. Look at dances/music associated with Mexican festivals and our own e.g. May pole dancing etc. Why do we do them in school? What is the history of this?</p> <p>Think about music and dances that we would traditionally do every year and at what times. Look at festivals throughout our calendar. Our Calendar is different to the complex one of the Maya civilisation but why do we have specific songs and dances at certain times of the year? Christmas, New Year, etc. Compare with Mexico.</p>
<p>Computing</p>	<p>A variety of software, such as word processing software, image editing software or internet services, can be selected, used and combined to meet a goal.</p> <p>Technology in our Lives</p> <p>Know that web mapping technology such as Google Earth can be used to explore the world from above.</p> <p>Know the internet services that are needed to be used for different purposes.</p> <p>Know how information is transported on the internet.</p> <p>Know how to check the reliability of a website.</p> <p>Know about copyright and how to acknowledge the sources information that are found online.</p> <p>Know that websites can use your data to make money and target their advertising.</p>

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	<p>Use Google Earth to explore Mexico, visit the deserts, mountains and urban areas. Draw comparisons with Exmouth and the surrounding area. Groups of children search using different themes and present to the class.</p> <p>Handling Data</p> <p>Know how to plan the process needed to investigate the world around me.</p> <p>Know how to select the most effective tool to collect data for my investigation.</p> <p>Know how to check the data I collect for accuracy and plausibility.</p> <p>Know how to present the data I collect in an appropriate way.</p> <p>Collect data related to other subject areas e.g. science/geography. Present the data in a variety of graphs/pie charts on the computer and then include with a word/google docs document including the context of the study.</p>
Design and Technology	<p>Ingredients can usually be bought at supermarkets, but specialist shops may stock different items. Greengrocers sell fruit and vegetables, butchers sell meat, fishmongers sell fresh fish and delicatessens usually sell some unusual prepared foods, as well as cold meats and cheeses.</p> <p>Design</p> <p>Know how to independently draw on a range of sources to help formulate design ideas.</p> <p>Know how to develop a clear rationale for why the chosen design was picked from a range of other designs which would also fit the design brief.</p> <p>Know how to independently devise step by step plans (including recipes) which can be read / followed by someone else.</p> <p>Know how to generate innovative ideas.</p>

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Know how to carry out market research using several methods with increasing independence.

Know how to consider resource costs and availability and appreciate this as an important aspect of manufacturing.

Make

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 a detailed list of ingredients.

Know how to independently select from and use a wide range of tools.

Know how to refine their product without prompting – review and rework/improve.

Evaluate

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 consider and explain how the finished product could be improved related to design criteria and feedback from user group.

Know how to discuss how well the finished product meets the design criteria of the user. Test on the user!

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 prepare food products taking into account of the properties of ingredients and sensory characteristics.

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Know how to weigh and measure using scales.

Know how to select and prepare foods for a particular purpose.

Know how to work safely and hygienically.

Know how to show awareness of a healthy diet (using the eatwell plate).

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 how to apply understanding of the need for keeping food prep areas tidy and clean.

Know the cultural and regional significance of food.

Read a range of recipes for traditional and contemporary Mexican fruit drinks and choose one to make. Make a shopping list for the ingredients needed. Write their own instructions and then follow them to make fruit punches. Enjoy tasting the drinks, discussing and evaluating which drinks they prefer and why. Suggest changes to ingredients that they did not like in order to improve their punches.

Work with an adult to follow recipes and cook a range of savoury Mexican dishes. Make chilli, tacos, refried beans, tortillas, guacamole and burritos. Consider adaptations to the recipe to improve them. Have a tasting morning and invite parents and carers to join in with the Mexican feast.

Find out about the Maya chocolate making process and then make their own chocolate. Follow an online recipe to make either solid chocolate or the more authentic Maya version, which was a thick spicy drinking chocolate. Try adding orange zest, white chocolate buttons and even chilli to experiment with the taste and texture of the chocolate. Taste and enjoy.

Eating a balanced diet is a positive lifestyle choice that should be sustained over time. Food that is high in fat, salt or sugar can still be eaten occasionally as part of a balanced diet.

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Taste foods enjoyed and, in some cases, introduced to the world by the ancient Maya civilisation, including avocado, guacamole, tortilla, sweet potato, squash, papaya, a Horchata drink (a blend of milk, sugar, ground almonds and vanilla) and salsa. Consider whether the Maya diet was healthy and explain why.

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? This knowledge or skill features heavily in sub theme or will not be repeated.
Text in this colour describes example activities to support the main theme of the topic.
Text in this colour relates to key pieces of knowledge linked specifically to our Curriculum Intent.

Sub-themes

Can you see through it?

Science

Discrete science teaching and learning.

Know that light travels through a transparent material and makes it see-through. As transparent materials are layered, they absorb more light and become translucent. When light can no longer pass through the layered materials, it becomes opaque. Know that light travels in straight lines. Know that objects are seen because they give out or reflect light and that light travels from a source to our eyes or to an object and then to our eyes.

Light

Know that light travels in straight lines and that we see objects when light from them goes into our eyes.

Know that light may come directly from light sources, but for other objects some light must be reflected from the object into our eyes for the object to be seen.

Know that objects that block light (are not fully transparent) will cause shadows.

Know that as light travels in straight lines, the shape of the shadow will be the same as the outline shape of the object.

Know and understand the meaning that objects are transparent, translucent or opaque.

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Knowledge of Working Scientifically

Know how to use appropriate scientific language to communicate his/her methods.

Know how to choose 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.

Know how to look for different causal relationships in their data and identify evidence that refutes or supports their ideas. Use their results to identify when further tests and observations are needed.

Use the school data logger and hand-held light meter to record the amount of light passing through various objects. This can include sun through the classroom windows. Excel/Sheets can be used to record some of the data from the hand-held light meter.

Look at images and text through sandwich bags to learn about opacity and transparency, properties that are determined by light. Start by holding one transparent polyethylene sandwich bag in the air. Recognise that light travels through the material, which allows us to see through the bag. Then place the sandwich bag over a colour picture, a black and white picture then text, one at a time, rating how well they can be seen through the bag. Then add a second sandwich bag, observing what effect the extra bag has and rating what can be seen before adding more bags, one at a time and testing again as before. When the sandwich bags become opaque and they can no longer be seen through, stop and record how many bags have been used and what has been observed.

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Term 2 – Spring

What are the key pieces of information we want children to remember and be able to build upon and 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.

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Main Topic	Darwin's Delight
<p>History</p>	<p>Charles Darwin is famous for his work on the theory of evolution. His book On the Origin of Species (1859) provided a great deal of evidence that evolution has taken place. ... Evolution by natural selection is the key to understanding biology, and the diversity of life on Earth.</p> <p>Chronology</p> <p>Know how to create a timeline of Darwin's life.</p> <p>Know how to create a timeline of key events in the world around the time of Darwin's exploration.</p> <p>Know how to describe in detail significant events and why they are significant.</p> <p>Historical Enquiry</p> <p>Know why some findings are of greater significance than others.</p> <p>Know how to formally critique the validity of primary and secondary sources.</p> <p>Interpretations of History</p> <p>Know how Darwin's expedition altered people's views of the beliefs about how and when the world began and about how species evolve.</p> <p>Cause and Consequence</p> <p>Know the consequences of Darwin's Theories of Evolution.</p>

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	<p>Know how Christian's felt about Darwin's theories.</p> <p>Similarities and Differences</p> <p>Compare and contrast other explorations around the time of Victoria's reign.</p> <p>Significance</p> <p>Know the significance of Darwin's theory of evolution at the time of his studies and now.</p> <p>Black and British</p> <p><i>Key Question – Did Darwin's views about slavery change during his expedition?</i></p> <p>Know that Charles Darwin was ferociously opposed to slavery.</p> <p>Know that his journal includes commentary about the poor treatment of slaves.</p> <p>Darwin's voyage of discovery began in Plymouth. In 1831, he joined a five-year scientific expedition on the survey ship HMS Beagle, which set sail from the port. It was during this trip that his ideas on evolution were born. Excavations at the local prehistoric caves at Kents Cavern backed up Darwin's theories on evolution.</p> <p>Before Charles Darwin's time, Lord Nelson (1758-1805) was the most famous admiral and sea warrior. His wife Lady Nelson is buried in Littleham graveyard.</p> <p>Use a range of historical sources to answer the question, 'Who was Charles Darwin and why was he so important?' Discover where and when he was born, where he lived and what he studied. Find out how he came to be part of the scientific expedition on HMS Beagle and why it was so significant to his theory of evolution. Create a timeline to illustrate Darwin's life up until his death on 19th April 1882.</p>
Geography	<p>Habitats are under threat in certain geographical areas.</p> <p>Locational Knowledge</p> <p>Know and revise the capital cities of Europe and major cities from around the world, including the capitals of USA, Canada, South America, most European cities, India, Kenya, Egypt, New Zealand, Australia, Japan, China, Pakistan.</p>

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Know and revise the naming of cities and countries in North, Central and South America (Venezuela, Colombia, Ecuador, Peru, Bolivia, Chile, Guyana, Suriname, Guatemala, Paraguay, Brazil, Uruguay, Galapagos Islands) and locating on a world map and atlas.

Know how to explain how the time zones work.

Place Knowledge

Know how to link words to theme e.g. settlement, urban, rural, land use, sustainability, rivers, confluence, tributary, rainforest, desert.

Human Features

Know how to give an extended description of the human features of different places around the world.

Physical Features

Know how to describe how some places are similar and others are different in relation to their physical features.

Skills, Maps Work and Fieldwork

Know how to ask questions: what is this landscape like?, how is it changing?, what patterns can you see / how has the pattern changed?

Know how to analyse evidence and draw conclusions e.g. from field work data on land use comparing land use and temperature.

Know how to look for patterns and explain the reasons behind them.

Know how to identify and explain different views of people including themselves and justify in detail.

Know how to communicate in ways appropriate to task and audience e.g. use email to exchange information about locality with another of our federation schools.

Know that field sketches should show understanding of pattern, movement and change.

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	<p>Know how to use maps, aerial photos, plans and web resources to describe what a locality might be like – locate information / place with speed and accuracy and use key to make deductions about landscape / industry / features etc</p> <p>Know how to use OS maps to answer questions.</p> <p>Know and recognise key symbols used on ordnance survey maps.</p> <p>More than 350 rare or endangered species have been found living on the East Devon Pebblebed Heaths.</p> <p>Use Devon Clinton Estates and Hawk Ridge to look for endangered species such as Dartford Warbler and the silver-studded blue butterfly. Carry out a local survey on endangered species in the UK.</p> <p>Find out what factors are endangering these species, such as human activity, habitat or climate change. Create a poster to inform others about the factors that are endangering the three species. Write captions that explain the importance of the species to the world as a whole. Relate this geography work to Darwin's theories.</p>
<p>Science</p>	<p>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.</p> <p>Know features which show how an animal has adapted and evolved to suit its environment.</p> <p>Examples include the long necks of giraffes for feeding in the tops of trees, the streamlined bodies of aquatic fish and mammals, the light bones of flying birds and mammals, and the long daggerlike canine teeth of carnivores.</p> <p>Evolution and Inheritance</p> <p>Know that all living things have offspring of some kind, as features in the offspring are inherited from the parents.</p> <p>Know that due to sexual reproduction, the offspring are not identical to their parents and vary from each other.</p> <p>Know that plants and animals have characteristics that make them suited (adapted) to their environment.</p> <p>Know that if the environment changes rapidly, some variations within species may not suit the new environment and will die.</p>

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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 inherited 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 lives 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.

Knowledge of Working Scientifically

Know 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 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.

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	<p>Explore how animals local to Exmouth have adapted to live in our climate and how they have evolved over time. Especially look at the estuary and how some animals and plants have adapted to living in a tidal environment (drying out) and to a salt/fresh water environment.</p> <p>Write a short report or presentation (using ICT) to explain the evolution. Common oceanic animal adaptations include gills, special breathing organs used by some oceanic animals like fish and crabs; blowholes, an opening on the top of the head that's used for breathing; fins, flat, wing-like structures on a fish that help it move through the water; and streamlined bodies.</p>
<p>Art and design <i>(link to Design and Technology Project)</i></p>	<p>Line is the most basic element of drawing and can be used to create outlines, contour lines to make images three-dimensional and for shading in the form of cross-hatching. Tone is the relative lightness and darkness of a colour. Different types of perspective include one-point perspective (one vanishing point on the horizon line), two-point perspective (two vanishing points on the horizon line) and three-point perspective (two vanishing points on the horizon line and one below the ground, which is usually used for images of tall buildings seen from above).</p> <p>Use of Sketchbook</p> <p>Know how to write detailed notes about pieces of work.</p> <p>Know how explicit references to methods and skills used in artwork they have created or artwork of others.</p> <p>Know how to research artists and link to their work.</p> <p>Know how to reflect on their work and its meaning and purpose.</p> <p>Know how to use their sketchbook to show knowledge and art history they have learnt.</p> <p>Drawing</p> <p>Know how to draw with pastel and charcoal effectively.</p> <p>Know how to use fine ink pens to make detailed drawings. Know that adding an ink wash creates shadow and tone.</p> <p>Know about negative drawings and create their own piece.</p> <p>Know how to be able to draw for a sustained period of over several sessions.</p>

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Know how to explain why they have combined different tools to create their drawing.

Know how to explain why they have chosen specific drawing techniques.

Collage

Know that arranging different sized strips of paper can achieve various effects.

Know the difference between positive and negative imagery and how to use it in my own pieces.

Know how to select collage materials by colour and texture according to the desired outcome.

Know how to layer and overwork the pieces.

Know about using symbols in the piece to represent meaning.

Textiles

Know how to tie-dye materials with different patterns.

Line

Know how to use line when drawing with a deeper knowledge and understanding.

Know how to use artist's artwork to apply to own piece.

Shape

Know how to fluently sketch key shapes of objects when drawing.

Texture

Know how to manipulate materials to create texture.

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	<p>Tone</p> <p>Know how to create light and shade, contrast, highlight and shadow.</p> <p>Darwin loved to collect shells that he found on the coast, particularly barnacle shells which fascinated him!</p> <p>Visit Exmouth beach to explore/take pictures of barnacles on rocks and collect shells to base their own drawings on. Consider the style of photograph being taken – close up, showing texture, landscape etc. Print photographs in different ways, colour, black and white, negative image etc.</p> <p>Create collages of their photographs and sketches and other information from Darwin.</p> <p>In sketchbooks, sketch different types of shells, including barnacle shells. Observe the fine details to sketches. Apply an ink wash to drawings to add shadow and tone.</p>
Music	<p>Know that a range of instruments and vocals can be used to create an original composition.</p> <p>Composition</p> <p>Know that a composition is music that is created by you and kept in some way. It's like writing a story. It can be played or performed again to you and friends.</p> <p>Know that a composition has pulse, rhythm and pitch that work together and are shaped by tempo, dynamics, texture and structure.</p> <p>Know that notation is the recognition of the connection between sound and symbol.</p> <p>Know how to create simple melodies using the notes in the pentatonic scale and with simple rhythms that work musically with the style of the content.</p> <p>Know how to explain the keynote or home note and the structure of the melody.</p> <p>Know how to listen to and reflect on the developing musical composition and make musical decisions about how the melody connect with the song.</p>

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	<p>Know how to record the composition in any way appropriate that recognises connections between sound and symbol e.g. graphic/pictorial notation.</p> <p>Use 'Horrible Histories' Charles Darwin song as a basis for their own composition and song about the life of Darwin – The Charles Darwin song can be used to demonstrate a repetitive phrase and allow pupils to also use the pentatonic scale to create a melody.</p>
<p>Computing</p>	<p>The positives of communicating online include the speed, low cost and ability to communicate globally. The negatives of communicating online include the threat to privacy, influencing of others, access to technology and anonymity.</p> <p>Multimedia</p> <p>Know and demonstrate an understanding of how technology has advanced in the last 100 years.</p> <p>Know that a range of media can be combined, recognising the contribution of each to achieve a particular outcome.</p> <p>Know how to consider audience, atmosphere and structure when planning a particular outcome.</p> <p>Know how to be digitally discerning when evaluating the effectiveness of your own work and the work of others.</p> <p>Consider, research and discuss the question: If Darwin was alive today doing the same research, how might he use modern technology and for what purpose?</p> <p>Children to create a blog post for the school website comparing Darwin's work in the past and how it would be presented now.</p>
<p>Design and Technology</p>	<p>Materials have different qualities, such as rough or smooth, hard or soft, heavy or light, opaque or transparent and fragile or robust. These different qualities can be used to add texture to a piece of artwork.</p> <p>Know how to use a range of media.</p> <p>Design</p> <p>Know how to independently draw on a range of sources to help formulate design ideas.</p> <p>Know how to independently devise step by step plans which can be read / followed by someone else.</p>

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Know how to generate innovative ideas.

Know how to consider resource costs and availability and appreciate this as an important aspect of manufacturing.

Make

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 a detailed list of components / materials and tools.

Know how to cut accurately and safely to lines independently marked out.

Know how to independently select from and use a wide range of tools.

Know how to use appropriate finishing techniques for the project and understand how different finishes may affect the potential market for the product.

Know how to refine their product without prompting – review and rework/improve.

Evaluate

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 the strengths and weaknesses of their design ideas and include in evaluations.

Know how to consider and explain how the finished product could be improved related to design criteria and feedback from user group.

Know how to discuss how well the finished product meets the design criteria of the user. Test on the user!

Know how to present evaluations pictorially and in writing.

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Know how to seek product testers in order to improve product during manufacture.

Textiles

Know how to use the correct vocabulary appropriate to the project.

Know how to understand pattern layout.

Know how to decorate textiles appropriately – often before joining components.

Know how to pin and tack fabric together.

Know how to join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision).

Create a sewn sketchbook for an explorer to use. Consider the size needed and how the pattern and decoration should be in keeping with the environment being explored.

Using a range of coloured and textured papers make a sewn sketchbook or journal.

Create a paper pattern for making a cover for the book – consider the folding and movement required.

Using the dyed fabric made in art, decorate further with embroidery or buttons etc and then sew a cover for the book.

Children to include line drawings of shells from Exmouth beach and plants, animals and insect found in our school environment (art curriculum).

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Term 2 – Spring	
	<p>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? This knowledge or skill features heavily in sub theme or will not be repeated.</p> <p>Text in this colour describes example activities to support the main theme of the topic.</p> <p>Text in this colour relates to key pieces of knowledge linked specifically to our Curriculum Intent.</p>
Sub-themes	Can fruit light a bulb? How does blood flow?
Science	<p>Discrete science teaching and learning.</p> <p>Investigate different fruit and vegetables to explore how they can act as batteries capable of powering a circuit. Batteries are a store of chemical energy that can be converted into electrical energy. Certain fruits and vegetables can be used as 'batteries', where their juice acts as an electrolyte. Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells. Compare and give reasons for variations in how components function. Use recognised symbols when representing a simple circuit in a diagram.</p> <p>Electricity</p> <p>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.</p> <p>Know that if you use a battery with a higher voltage, the same thing happens.</p> <p>Know that adding more bulbs to a circuit will make each bulb less bright.</p> <p>Know that using more motors or buzzers, each motor will spin more slowly and each buzzer will be quieter.</p> <p>Know that turning a switch off (open) breaks a circuit so the circuit is not complete and electricity cannot flow.</p> <p>Know that any bulbs, motors or buzzers will then turn off as well.</p> <p>Know how to use recognised circuit symbols to draw simple circuit diagrams.</p> <p>Knowledge of Working Scientifically</p> <p>Know how to decide which variables to control.</p>

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Know how to take repeated readings and compare results – discussing using scientific language the reasons for the differences.

Know how to take accurate and precise measurements.

Know how to choose 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.

Pupils to build on previous learning from Year 4. Recap on names of components and how to light a lamp with a cell and a wire. Understand where connections need to be. Plan an investigation using cells and components to test how the brightness/volume changes.

Start by learning about batteries and how they work. Then work in groups to produce a series circuit, checking it works then using a voltmeter to measure and record the voltage of the circuit in volts (V). Each group is then given five pieces of the same fruit or vegetable. They insert a zinc-galvanised nail and a copper coin into the first piece, using the metals as terminals to connect the fruit or vegetable to the circuit in place of the battery. Observe whether the LED lights up and use the voltmeter to measure and record the voltage of the new circuit. Then add more pieces of fruit or vegetable to the circuit, one at a time, so they are connected in series. After each piece is added, measure and record the voltage of the circuit before comparing the fruit or vegetable to real batteries. Create a range of circuits using different numbers of cells and lamps/buzzers and observe the effect on the components.

Animals Including Humans

Know that the heart pumps blood in blood vessels around to the lungs.

Know that oxygen goes into the blood and carbon dioxide is removed.

Know that the blood goes back to the heart and is then pumped around the body.

Know that nutrients, water and oxygen are transported in the blood to the muscles and other part of the body where they are needed.

Know that as they are used, they produce carbon dioxide and other waste products.

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Know that carbon dioxide is carried by the blood back to the heart and that the cycle starts again as it is transported back to the lungs to be removed from the body.

Know that this is called the human circulatory system.

Know that diet, exercise, drugs and lifestyle have an impact on the way our bodies function.

Know that these factors can affect how well our heart and lungs work, how likely we are to suffer from conditions such as diabetes, how clearly we think and how generally fit and well we feel.

Know that some conditions are caused by deficiencies in our diet e.g. lack of vitamins.

Knowledge of Working Scientifically

Know how to choose suitable sources and begin to separate opinion from fact.

Know how to recognise which secondary sources will be most useful to research their ideas.

Know how to ask a range of questions and identify the type of enquiry that will help to answer the questions.

Know how to make decisions about how long to make observations for.

Know how to choose how to record data from a choice of familiar approaches.

Know how to prepare own tables to record data, including columns for taking repeat readings.

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.

Know how to be able to answer their questions using scientific evidence gained from a range of sources.

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	<p>Know how to separate opinion from fact in conclusions.</p> <p>Know how to be able to talk about their degree of trust in the sources used.</p> <p>Observe 'blood' flowing through tubes to see how the diameter of the tubes affects flow rate. Relate this to the flow of blood through real blood vessels and plan their own second investigation about circulatory system health. Recognise that different vessels move blood at different rates and our lifestyle choices can directly affect our circulatory system.</p> <p>Use tubes to represent the body's three main blood vessels: arteries, veins and capillaries. insert each tube into a hole near the base of three different polystyrene cups and seal the edges with modelling clay. Add a simulated 'blood' sample to the cups and time how long it takes for the sample to flow through the tubes. Repeat the test three times and calculate the average flow times for each tube. Research, plan and carry out a second investigation to see what effect diseases and lifestyle choices have on blood flow through vessels.</p>
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Term 3 – Summer	
<p>What are the key pieces of information we want children to remember and be able to build upon and reflect on within each subject area of this topic?</p> <p>Text in this colour relates to key pieces of knowledge linked specifically to our Curriculum Intent.</p> <p>Text in this colour describes example activities to support the main theme of the topic.</p>	
Main Topic	Frozen Kingdom
History	<p>Consider two different journeys in or around the life of Queen Victoria – Ernest Shackleton's exploration on The Endurance and the maiden voyage of The Titanic.</p> <p>Chronology</p> <p>Know how to show the events of both journeys on timelines.</p> <p>Know in detail significant events and why they were significant.</p>

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Historical Enquiry

Know why some findings are of greater significance than others.

Know why historical artefacts might be targeted by criminals.

Know how some artefacts may be misleading.

Know how to formally critique the validity of primary and secondary sources.

Interpretations of History

Know how to make a reasoned judgement on whether a historically significant event is fact or fiction.

Continuity and Change

Know how to consider explorers' desire to carry out challenging expeditions in the way Shackleton did. Know how have expeditions in the Antarctic changed over time.

Cause and Consequence

Know how to use a wide range of evidence to evaluate the causes and effects of events that happened with Titanic's maiden voyage and Shackleton's expedition.

Similarities and Differences

Know about some of the explorations to find The Titanic and The Endurance. Know about the different strategies used?

Know that conditions on board the Titanic differed for passengers according to their wealth and status.

Significance

Know how to consider and debate the statement that Shackleton's exploration was a 'successful failure'.

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	<p>Know the significance of both of the ships' names.</p> <p>Know that a survivor of The Titanic lived in Branscombe – the village of one of our sister schools.</p> <p>Find out what conditions were like aboard the 'unsinkable' Titanic, describing how the accommodation differed for rich and poor passengers. Imagining they are one of the passengers setting off for a new life in America, write a wireless telegraph to someone in Exmouth or at home describing their experiences, hopes and fears. Share on the website.</p> <p>Find out about Shackleton's reasons for his expedition. Consider what sort of planning needed to take place, and how this would differ today. Know about some of the problems along the course of the expedition. Create diary entries for the stages of the expedition – create a class display.</p>
Geography	<p>Climate is the long-term pattern of weather conditions found in a particular place. Climates can be compared by looking at factors including maximum and minimum levels of precipitation and average monthly temperatures. The Northern Hemisphere is the part of Earth that is to the north of the equator. The Southern Hemisphere is the part of Earth that is to the south of the equator. The Prime Meridian is the imaginary line from the North Pole to the South Pole that passes through Greenwich in England and marks 0° longitude, from which all other longitudes are measured.</p> <p>The Poles have both similarities and differences. Tourism is an industry that involves people travelling for recreation and leisure. It has had an environmental, social and economic impact on many regions and countries.</p> <p>Locational Knowledge</p> <p>Know, through revision, the names of major continents, countries, cities, rivers, mountains, jungles, deserts, seas and oceans around the world.</p> <p>Know how to explain how the time zones work.</p> <p>Place Knowledge</p> <p>Know the words related to the main geography theme – arctic, Antarctic, settlement, hemisphere, poles, equator, tourism, sustainability, climate change.</p> <p>Human Features</p>

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Know how to give an extended description of the human features of different places around the world.

Know how to give an explanation for the way human behaviour is affecting places around the world.

Physical Features.

Know how some places are similar and others are different in relation to their physical features.

Know how physical features are being affected by human behaviour and how this could be paused.

Skills, Maps Work and Field Work

Know how to perfect accuracy in describing routes using 8 points of the compass – introduce the concept of 16 points.

Know how to use 6 figure grid references.

Know how to ask questions such as what is this landscape like?, how is it changing?, what patterns can you see/how has the pattern changed?

Know how to explain patterns.

Know how to identify and explain different view of people including themselves and justify in detail.

Know how to communicate in ways appropriate to task and audience – relating to climate change.

Devon is a tourist area to be proud of, but it suffers some of the problems caused by tourism that are found all over the world such as damage to landscape, pollution, disturbances, traffic congestion, local goods costing more.

Use globes and atlases to find both polar regions. Make a simplified sketch map with symbols and a key. Identify the similarities and differences between the Arctic and Antarctic.

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	<p>Consider the damage of tourism to the polar regions (globally) down to local level in Devon. Create an in-class news studio and write / present news stories about these issues. Invite a guest speaker from the local tourist board to interview about effects of tourism in the south-west.</p> <p>Know how to record data and information in simple charts, tables and spreadsheets using appropriate headings. Recognise and understand similarities such as: Climate; Population; Settlements; Animal life; Plant life; Seasonal change. Know how to recognise and explain similarities and differences between different regions, countries.</p> <p>Work in research teams to identify similarities and differences between the Arctic and Antarctic. Record data in a range of ways using headings such as: Climate; Population; Settlements; Animal life; Plant life; Seasonal change. Discuss and share findings. Discuss and consider how life in either region compares to that of life in the UK. What are the major differences? Are there any similarities? – Focus on local area especially coastline.</p>
<p>Science</p>	<p>Know and explain how food chains work using the correct vocabulary. The removal of one of the components has an impact. Know how living things are classified into broad groups, including micro-organisms, plants and animals. Know reasons for classifying plants and animals based on specific characteristics.</p> <p>Living Things and Their Habitats</p> <p>Know that living things can be formally grouped according to characteristics.</p> <p>Know that plants and animals are the two main groups for example, micro-organisms such as bacteria and yeast and toadstools and mushrooms.</p> <p>Know that plants can make their own food whereas animals cannot.</p> <p>Know that animals can be divided into two groups; those that have a backbone (vertebrates) and those that do not (invertebrates).</p> <p>Know that vertebrates can be divided into five small groups; fish, amphibians, reptiles, birds and mammals.</p> <p>Know that each group has common characteristics and to name these.</p> <p>Know that invertebrates can be divided into a number of groups including insects, spiders, snails and worms.</p>

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	<p>Know that plants can be divided broadly into two main groups; flowering plants and non-flowering plants and give examples of each.</p> <p>Knowledge of Working Scientifically</p> <p>Know how to use yes/no questions that will give useful information and justify these decisions.</p> <p>Know how to identify specific clear questions that will help to sort without ambiguity using keys.</p> <p>Know how to apply knowledge of previous enquiry to compare and classify.</p> <p>Know how to create branching databases (tree diagrams) and keys to enable others to name living things and objects.</p> <p>Know how to be able to explain using evidence that the branching database or classification key will only work for the living things or materials it was created for.</p> <p>Construct food chains, of a chosen animal or plant from a frozen land, to show how species are dependent on each other as food sources. Describe their diagram using scientific vocabulary such as energy source, autotroph or primary producer, herbivore or primary consumer, secondary consumer and top or apex predator. Work to interlink individual food chains into a food web. Consider what impact the removal of one the components in the food chain or web would have. Make links with food chains in our local area. Compare and discuss similarities/differences. Group organisms from the polar regions into the broad groups. Why are some groups underrepresented?</p> <p>Use our grounds to observe a range of invertebrates and classify them according to observable features. Ensure we treat the animals with respect and return them to their original habitat if we have to take them back to the classroom. Use a sports hoop to create a simple quadrat to count invertebrate species in different parts of the school grounds.</p>
Art and Design	See Sub Theme topic.
Music	<p>A score contains all the information musicians need to rehearse and perform a piece of music, including separate lines for each instrument or voice part, notation showing pitch and duration of sounds and markings to show dynamics, such as <i>mp</i> and <i>mf</i>.</p> <p>Know how to use a range of everyday and classroom items to create music. Know how to layer sounds for effect.</p>

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Composition

Know that a composition is music that is created by you and kept in some way. It's like writing a story. It can be played or performed again to you and friends.

Know that a composition has pulse, rhythm and pitch that work together and are shaped by tempo, dynamics, texture and structure.

Know that notation is the recognition of the connection between sound and symbol.

Know how to create simple melodies using the notes in the pentatonic scale and with simple rhythms that work musically with the style of the content.

Know how to explain the keynote or home note and the structure of the melody.

Know how to listen to and reflect on the developing musical composition and make musical decisions about how the melody connect with the song.

Know how to record the composition in any way appropriate that reconises connections between sound and symbol e.g. graphic/pictorial notation.

Dimensions of Music

Know how to be able to talk about how pulse, rhythm, pitch, tempo, dynamics, texture and structure work together to create a song or piece of music.

Know how to keep the internal pulse.

Know how to be a musical leader – creating musical ideas for the group to copy or respond to.

Know how to find the pulse/copy back rhythms based on the words of the main song that include syncopation (off beat)/copy back one note riffs using simple and syncopated rhythm patterns.

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	<p>Playing</p> <p>Know and be able to talk about different ways of writing music down e.g. staff notation, symbols.</p> <p>Know the notes C,D,E,F,G,A,B,C, on the treble stave.</p> <p>Know the instruments that might be played in a band or orchestra or by their friends.</p> <p>Know how to play a musical instrument with the correct technique within the context of the composition.</p> <p>Know how to select and learn an instrumental part that matches their musical challenge, using one of the differentiated parts – one note, simple or medium part or melody from memory or notation.</p> <p>Know how to rehearse and perform their part.</p> <p>Know how to listen to and follow musical instruments from a leader.</p> <p>Know how to lead a rehearsal session.</p> <p>Create a soundtrack that captures the beauty of the Northern Lights, using a range of everyday and found objects from around the classroom. Consider which sounds would best paint the picture of the light's luminescence and movement, layering sounds for effect. Children to record their compositions in a simple musical score, share with other classes and parents.</p>
Computing	<p>Programming</p> <p>Know how to deconstruct a problem into smaller steps, recognising similarities to solutions used before.</p> <p>Know how to explain and program each of the steps in an algorithm.</p> <p>Know how to evaluate the effectiveness and efficiency of an algorithm while continually testing the programming of that algorithm.</p> <p>Know when to use a variable to achieve a required output.</p> <p>Know how to use a variable and operators to stop a program.</p>

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	Create an 'Ice Maze Game' linked to Shackleton's exploration. Practice how to debug games that have problems.
Design and Technology	See Sub Theme Topic

Term 3 – Summer	
	<p>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? This knowledge or skill features heavily in sub theme or will not be repeated.</p> <p>Text in this colour describes example activities to support the main theme of the topic.</p> <p>Text in this colour relates to key pieces of knowledge linked specifically to our Curriculum Intent.</p>
Sub-themes	Revolution
History	<p>Revolution: Gain historical perspective by placing their growing knowledge into different contexts: understanding the connections between local, regional, national and international history; between cultural, economic, military, political, religious and social history; and between short- and long-term timescales.</p> <p>Chronology</p> <p>Know how to describe the historical significance of historical findings.</p> <p>Know how to describe the main achievements in the lifetime of a monarch.</p> <p>Know how to create a timeline of Victorian achievements and for the life of Queen Victoria.</p> <p>Know how to describe in detail significant events and why they were significant.</p> <p>Know how to explain colonisation along with benefits and disadvantages.</p> <p>Historical Enquiry</p>

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Know how some artefacts may be misleading.

Know how to formally critique the validity of primary and secondary sources.

Interpretations of History

Know how to justify 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.

Know how to justify the reasons for and against nations seeking empires.

Know how to explain why they feel that the British Empire has all but disappeared.

Continuity and Change

Know how to interpret a range of evidence to reach a conclusion and make a judgement as to why the British Empire has all but disappeared.

Know how to interpret a range of evidence to describe how the conditions for children's lives improved during the Victorian period.

Cause and Consequence

Know how to use a wide range of evidence to evaluate the wide consequences of the invention of more industrial processes.

Know how to explain with evidence what drives some people to become social reformers and the impact of some of those reformers

Similarities and Differences

Know how to compare different groups of society from the Victorian Period and explain why making judgements is so difficult.

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	<p>Know how to compare and make a judgement about the Rowntree Factory or Sunlight Soap Factory with other Victorian Factories.</p> <p>Significance</p> <p>Know why the phrase 'the sun never sets upon the British Empire' was so significant.</p> <p>Black and British</p> <p><i>Key Question – What difference did the slave trade make to the experience of the Black people?</i></p> <hr/> <p>Know how to explain the nature of the transatlantic slave trade and how it worked to Britain's benefit, as one of the world's biggest slave-trading nations.</p> <hr/> <p>Know that more than three million people were forced into slavery by British traders.</p> <p>Know how to appreciate the extent of the horrific human suffering this caused to the Black Peoples of Africa.</p> <p>Know that whole islands such as Barbados were given over to sugar plantations because people in Britain had developed a 'sweet tooth'.</p> <p>Know how to deduce from portraits the role Black people played in rich households.</p> <p>Know that Britons, including black campaigners, led the way in making the slave trade illegal.</p> <p>Consider the following elements of The Victorian Era and the significant historical individuals linked to them.</p> <p>The young Queen Victoria.</p> <p>Family Life and Victorian Children – rich and poor</p> <p>The Industrial Revolution – visit Coldharbour Mill</p> <p>The British Empire</p> <p>The death of Prince Albert.</p>
<p>Art and Design</p>	<p>Printmakers create artwork by transferring paint, ink or other art materials from one surface to another. One such technique is Batik. This a process of using melted wax as a resist on fabric. The wax may be painted on a white or coloured fabric using a canting or brush or it may be stamped onto the fabric using a copper stamp dipped in melted wax. The fabric is then dyed, and the areas that have been waxed will not be penetrable by the dye.</p>

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Use of Sketchbook

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 research artists and link to their work.

Know how to reflect on their work (and other children's work) and its meaning and purpose.

Know how to use their sketchbook to show knowledge and art history they have learnt.

Printing

Know how to print coloured, repeated patterns onto surface of their choice.

Know how to produce a relief print.

Know how to combine previous taught techniques to develop own piece of work.

Know how to use batik to create a patterned panel.

Know how to make a simple block print, combining two or three colours, understand how to add surface detail using black ink.

Colour

Know how to mix and apply colours to represent still life objects from observation.

Know how to analyse colours used by painters.

Patterns

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	<p>Know how to construct patterns using various methods to develop their understanding.</p> <p>Know how to use artists' artwork to apply to their own piece.</p> <p>Shape</p> <p>Know how to adapt the work of others to compose original ideas.</p> <p>Know how to create abstract compositions using knowledge of other artists' work.</p> <p>Study the work of Victorian Artist William Morris. Consider the houses that would have been able to afford his work in Victorian times.</p> <p>Find examples of William Morris prints. Taking inspiration from his style, design a simple block print combining two or three colours in their sketchbooks. Add surface detail using black ink. Children to annotate their work, describing their inspiration and intentions and explaining the techniques to be used to create them. Adapt and refine artwork in light of constructive feedback and reflection.</p> <p>Create the block printing to create a repeated pattern.</p> <p>Create another William Morris style panel using Batik method.</p>
Design and Technology	<p>Strength can be added to a framework by using multiple layers. For example, corrugated cardboard can be placed with corrugations running alternately vertically and horizontally. Triangular shapes can be used instead of square shapes because they are more rigid. Frameworks can be further strengthened by adding an outer cover.</p> <p>Design</p> <p>Know how to develop own simple design specification.</p> <p>Know how to independently draw on a range of sources to help formulate design ideas.</p> <p>Know how to develop clear rationale for why the chosen design was picked from a range of other designs which would also fit the design brief.</p>

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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

Know the importance of prototypes and present prototypes to peers.

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 use a computer to model ideas and understand the importance of doing this.

Know how to independently select from and use a wide range of tools.

Know how to cut accurately and safely to lines independently marked out.

Know how to refine a product without prompting – review and rework/improve.

Evaluate

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 identify the strengths and weaknesses of their design ideas and include in evaluations.

Know how to give a report using correct 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 and feedback.

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Know how key people have influenced design.

Know how to present evaluations pictorially, in writing and using appropriate mathematical skills.

Structures

Know how to use the correct terminology for tools, materials and processes.

Know how to mark hole positions accurately.

Know how to use hand drills to drill tight and loose fit holes.

Know how to cut strip wood, dowel, square section wood accurately to 1mm.

Know how to join materials using appropriate methods.

Know how to build frameworks to support mechanisms.

Know how to stiffen and reinforce complex structures.

Mechanical and Electrical Systems and ICT

Know how to develop a technical vocabulary appropriate to the project.

Know how to use mechanical systems such as cams, pulleys and gears.

Know how to use electrical systems such as motors.

Know how to program, monitor and control using ICT.

Know that mechanical and electrical systems have inputs>processes>outcomes.

Know how to understand that gears and pulleys can be used to speed up, slow down or change the direction of movement.

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Know how to apply computing skills.

Know how to understand and describe electrical systems used in products.

Investigate the development of bridges throughout history. Consider Brunel the Victorian Engineer. Consider different bridge designs.

Design and make their own bridges using structures and mechanical systems described above.

Purple – Key knowledge linked to our Curriculum Intent.

Green – Suggested activities