Curriculum Overview Year 5

	Autumn 1st	Autumn 2nd	Spring 1st	Spring 2nd	Summer 1st	Summer 2nd
Visits/visitors			Science museum sleepover?	Science museum sleepover?	Dunwich fieldwork trip Wk beg	Duxford wk beg 7/11/16
Presentation of learning	Newspaper article to be sent home.	Science experiment set up and carried out with parent.	Art exhibition of drawings.	Buggy exhibition to Year 6.	Perform compositions to Year 3.	Walk through the Ancient Greek time with Year 4.
Maths (see White Rose Maths Hub for more details)	Number – Place Value Number – Addition and Subtraction	Number – Multiplication and division Statistics	Number – Fractions	Number – Decimals Number – Percentages	Geometry – Angles Geometry – shapes Geometry – Position and direction	Measurements – Converting units Number – Prime numbers Perimeter and Area Measurement - Volume
English	Poetry – Choral or performance poems (2 weeks) Chronological reports aligned to volcanoes. (4 weeks) Guided Reading – Charlie and the chocolate factory	Fables, myths or legends (Mayans) (5-6 weeks) Text types to be covered: Narrative – Style - Stories using dramatic conventions Persuasion Guided reading –	Highwayman Poetry – Narrative poems using metaphor. (4 weeks) Instructions (2 weeks) – linked to DT and buggy (hot task Spring 2). Procedural texts Guided reading –	**The Kingdom Revealed** – Rob Ryan (5-6 weeks) Text types to be covered: Narrative – Settings – Character changing throughout the story. Guided reading – Varjak Paw	**The Matchbox Diary** – Paul Fleischman (4-5 weeks) Text types to be covered: Narrative - Characterisation Recounts Poetry – Poems with word play, rhyme. Guided reading – Kensuke's Kingdom	**Rose Blanche** – Roberto Innocent (5-6 weeks) Guided reading – The amazing Maurice and his educated rodents.
Grammar, Punctuation and Spelling	Alan Peat: 3-ed 2 pairs Noun, which/who/where Ad, same ad All the W's -ing, -ed Punctuation: Paragraphs – change of time. Question marks. Exclamation marks. Spelling:	Alan Peat: Many questions 2A 2 pairs De:De Verb, person Some; others Punctuation: Apostrophe for contractions Colons Dash Spelling:	Alan Peat: Simile Emotion word (comma) Double ly ending List The more, the more Short Punctuation: Parenthesis Semi colons Spelling: Revise apostrophe for possession	Alan Peat: Personification of weather P.C. If, if, if, then Punctuation: Quotation marks. Commas. Spelling: Rare GPC words from 5/6 list bruise guarantee	Alan Peat: BOYS 2A Irony Punctuation: Ellipsis Spelling: Revise range of strategies for learning words Proof reading checking writing for misspelt words	Alan Peat: Imagine 3 examples: 3 bad-(dash) question? Punctuation: Hyphens Spelling: Homophones Use of dictionary referring to three or four letters

	Revise plurals Silent letters Homophones Dictionary work Proof reading	Extending base words Words containing ough Endings –able –ably	Intro of spelling logs Dictionary work to create collections of words Proof reading	Word endings –ible –ibly Homophones		
Science	**Do all animals and plants start life as an egg?** Investigation questions: -what is the lifecycle of a meal worm? -How do worms reproduce? -Why do birds lay eggs? • describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • describe the life process of reproduction in some plants and animals.	**Can you feel the force?** Investigation questions: -How do levers help us? -what do pulleys do? Why are zip wires so fast? • explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • identify the effects of air resistance, water resistance and friction, that act between moving surfaces • recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	**Could you be the next CSI investigator?** Investigation questions: -How clean are your hands? -Can you clean dirty water? -Do all solids dissolve? • compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets • know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution • use knowledge of solids, liquids & gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • demonstrate that dissolving, mixing & changes of state are reversible changes • explain that some changes result in the formation of new materials, and that this	**Will we ever send another human to the moon?** Investigation questions: -How does the moon move? -Can we track the sun? -why do planets have craters? -How do rockets lift off? • describe the movement of the Earth, and other planets, relative to the Sun in the solar system • describe the movement of the Moon relative to the Earth • describe the Sun, Earth and Moon as approximately spherical bodies • use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	**How different will you be when you are as old as your grandparents?** Investigation questions: -Do we slow down as we get older? • describe the changes as humans develop to old age.	**Assessment of previous topics and units of work-revisiting and applying scientific skills and enquiry**

			kind of change is not usually reversible, including changes associated with burning & the action of acid on bicarbonate of soda.			
Geography	**How do volcanoes affect the lives of people on Hiemaey?** **Identify**, **recognise** and **describe**, using appropriate subject vocabulary, where Saethor takes his dog Tiry for a walk each day; **Identify**, **describe** and and **compare and contrast** the countries of Europe; **Recognise**, **describe** and **explain** the key geographical features of the Westman Islands region of Iceland and the island of Hiemaey in particular; **Compare and contrast**, using appropriate geographical vocabulary, the physical and human geography of Vestmannaeyjar with that of the local area/region; **Explain** and reach a **judgement**, using appropriate and specialised subject vocabulary, why there are so few trees on Hiemaey; **Explain** how volcanoes form, **observe** the global pattern of volcanoes correctly and suggest plausible geographical **reasons** for this distribution; **Understand** how and why the environment of Hiemaey has changed over time and reach **conclusions** and make **judgements** about the positive and negative impact of these changes on the		**What is a river?** **Identify** and **describe** how physical features of rivers change from source to mouth; Offer **reasons** to **explain** why the course of a river changes as it flows from higher to lower ground; Use OS maps, aerial photographs and GIS to **recognise**, **describe**, **compare and contrast** and **explain** how physical features change along the course of a river; Use a range of fieldwork techniques to **measure**, **record** and **present** and **explain** changes along a section of a local river and to **reach a conclusion** as to whether it constitutes a healthy habitat for living things; **Identify** and **describe** the features of river estuaries and **explain** why they are such important ecosystems for wildlife; **Describe** the components of the hydrological or water cycle and **explain** the important role that rivers play; **Recognise**, **describe** and **explain** the reasons why the Isle of Dogs developed to become part of the busiest river port in the world and **evaluate** the evidence and **make a judgement** about the causes of its sudden decline and closure; **Interpret** a range of geographical evidence to reach a **conclusion** as to why		**Why are mountains so important?** **Recognise**, **identify** and **explain** what geographers define as mountains and **understand** how this can lead to disagreements; **Identify**, **locate** and **describe** the location of the largest ranges of mountains in the world and the countries that they cover; **Explain** how the movement of plates of the Earth's crust can form ranges of fold mountains; **Reflect** upon, **evaluate** evidence and reach a **conclusion** and **judgement** regarding the success or failure of expedition of Mallory and Irvine to climb Mount Everest in 1924; Demonstrate that they **understand** how fossils form and can **explain** why Edmund Hillary and Tenzing Norgay discovered fossils of sea animals on the summit of Mount Everest in 1953; **Identify**, **describe**, **compare and contrast** and **explain** the differences between the Cambrian Mountains of Wales and the Himalaya Mountains; **Measure**, **record**, **compare and contrast** climate data for Derek's farm with where they live and begin to offer **reasons** for their **observations**;	

	ways of life of the people of Hiemaey; **Understand** the stages in the manufacture of an economic activity – fish processing – together with what export, import and trade entails; Make a **reasoned geographical judgement**, using evidence and logical argument, as to whether earthquakes are more dangerous than volcanoes.		Bangladesh is at such a risk of serious annual river flooding;		**Explain** and reach a **conclusion** as to why the mountains of the north and west of the United Kingdom are generally wetter and cooler than places in the south and east; **Identify**, **locate**, **describe** and **explain** the tourist attractions of the Cambrian Mountains by **interpreting** and **making judgements** from evidence presented on Ordnance Survey maps; **Evaluate** a range of evidence to make a **judgement** as to why reservoirs were constructed by the City of Birmingham in the mountains of central Wales over one hundred years ago; **Understand** that even 'green' and 'renewable' energy schemes will have environmental costs, **evaluate** both sides of an argument and make a **judgement** about the most appropriate way forward; **Understand** why Scotland is an attractive winter sports centre;	
History		Mayan- Why did the ancient Maya change the way they lived?		York- What did King George VI mean when he said 'The history of York is the history of England'?		Battle of Britain- Why was winning the Battle of Britain in 1940 so important? Potential trip - Battle of Britain exhibition - Imperial War Museum – Duxford
DT		Celebrating culture and seasonality.		Pulleys and gears **Key learning in design and technology**	**More complex switches**	

		Key learning in design and technology **Prior learning** • Have knowledge and understanding about food hygiene, nutrition, healthy eating and a varied diet. • Be able to use appropriate equipment and utensils, and apply a range of techniques for measuring out, preparing and combining ingredients. **Designing** • Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. • Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. • Use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. **Making** • Write a step-by-step recipe, including a list of ingredients, equipment and utensils • Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • Make, decorate and present the food product		**Prior learning** • Experience of axles, axle holders and wheels that are fixed or free moving. • Basic understanding of electrical circuits, simple switches and components. • Experience of cutting and joining techniques with a range of materials including card, plastic and wood. • An understanding of how to strengthen and stiffen structures. **Designing** • Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources. • Develop a simple design specification to guide their thinking. • Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. **Making** • Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the	**Key learning in design and technology** **Prior learning** • Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product. • Initial experience of using computer control software and an interface box or a standalone box, e.g. writing and modifying a program to make a light flash on and off. **Designing** • Use research to develop a design specification for a functional product that responds automatically to changes in the environment. Take account of constraints including time, resources and cost. • Generate and develop innovative ideas and share and clarify these through discussion. • Communicate ideas through annotated sketches, pictorial representations of electrical circuits or circuit diagrams. **Making** • Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. • Competently select and accurately assemble materials, and securely connect electrical	

		appropriately for the intended user and purpose. **Evaluating** • Carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams. • Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. • Understand how key chefs have influenced eating habits to promote varied and healthy diets. **Technical knowledge and understanding** • Know how to use utensils and equipment including heat sources to prepare and cook food. • Understand about seasonality in relation to food products and the source of different food products. • Know and use relevant technical and sensory vocabulary.		constraints of time, resources and cost. **Evaluating** • Compare the final product to the original design specification. • Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work. • Investigate famous manufacturing and engineering companies relevant to the project. **Technical knowledge and understanding** • Understand that mechanical and electrical systems have an input, process and an output. • Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. • Know and use technical vocabulary relevant to the project.	components to produce a reliable, functional product. • Create and modify a computer control program to enable an electrical product to work automatically in response to changes in the environment. **Evaluating** • Continually evaluate and modify the working features of the product to match the initial design specification. • Test the system to demonstrate its effectiveness for the intended user and purpose. • Investigate famous inventors who developed ground-breaking electrical systems and components. **Technical knowledge and understanding** • Understand and use electrical systems in their products. • Apply their understanding of computing to program, monitor and control their products. • Know and use technical vocabulary relevant to the project.	
Art & Design	**<u>Textiles</u>** **Focus artists: Cynth Weyman** **Jean Davywinter**		**<u>Drawing</u>** **Focus Artist: Lucian Freud** **Hundertwasser** • Work in the negative			**<u>Collage</u>** **<u>Focus</u>** <u>Artist:</u> Dale Devereux-Barker

Y5 Focus Artist: Henry Moore	• Experience 3D weaving. (Make horizontal logs from rolled up paper stick in vertical lines. Weave through – horizontally.) • Combine techniques to create an end piece e.g. stitch over two colour tie dye. • Show awareness/research skills involved in lace making, knitting… • Experiment with 'construction' (layering, plaiting, weaving, sticking, tying) and 'destruction' (cutting, tearing, hole punching, thread removing) using a piece of fabric. • Construct a fabric relief panel – pinching, twisting, folding, scrunching fabric and attaching to glued surface. Further develop using Brusho.		by making marks with a rubber in a graphite or chalk background. Look at work of Frank Auerbach. • Work in a sustained way to create a detailed drawing. E.g. look at the work of Hundertwasser, use a viewfinder and select and draw a section. Repeat with another and then select one and enlarge. Use acetate overlays to work over the top using OHP pens/ oil pastels. • Work from a variety of sources: observation, photographs, digital images. • Have opportunities to develop simple perspective using a single focal point and horizon. E.g. looking down a road, railway track, across a field to a windmill. • To use natural form as a starting point for imaginative work. E.g. what is inside a thistle?			• Experiment in sketchbooks using layering and overlapping techniques. • Use viewfinder and observational drawing of natural objects as starting point for work. Develop into chalk drawing and then collage. Use overlapping and layering techniques. • Look at the work of artist Dale Devereux-Barker – 'My week.' Look at is use of simple symbols. Use symbols to create collaged squares, incorporating symbols.
Music	**Music Express – Spr 1** **LIFE CYCLES** (6weeks) Focus: Structure Subject link: PSHE Explore the human life cycle with music by Johannes Brahms,	**Music Express - Sum 2** **CELEBRATION** (6 Weeks) Focus: Performance Subject link: English A lively celebration in song for the children to perform at a class	**Music Express – Spr 2** **KEEPING HEALTHY** (6 Weeks) Focus: Beat Subject link: PE From body-popping and gospel-singing to swimming and cycling, the children	**Music Express – Aut 2** **SOLAR SYSTEM** (6 Weeks) Focus: Listening Subject link: Science Embark on a musical journey through the	**Music Express – Aut 1** **OUR COMMUNITY** (6 Weeks) Focus: Performance Subject link: History The song *Jerusalem* provides the basis for looking at changes	**Music Express – Sum 1** **AT THE MOVIES** (6 Weeks) Focus: Composition Subject link: English Explore music from 1920s animated films to present day movies. The

	Luciano Berio, Franz Liszt and Claudio Monteverdi. The wide variety of musical moods, styles & genres inspires singing, performing & composing using new techniques and structures.	assembly, a school concert or fete. The Celebratory, upbeat mood will soon have the audience joining in.	are taken through their paces, and they put together an invigorating performance using new musical techniques.	solar system, exploring how our universe inspired composers including Claude Debussy, Gustav Holst and George Crumb. The children learn a song, and compose pieces linked to space.	through time. The children are given opportunities to compose and perform music inspired by their local community, both past and present.	children learn techniques for creating soundtracks and film scores, and they compose their own movie music.
PE	Basketball play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, Inclusion activities -Sports that support the understanding of disabilities *tied in with Paralympics	Badminton play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, Dance perform dances using a range of movement patterns	Netball "hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending" Gymnastics develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]	Football play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, Hockey "hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending"	Group dynamic activities "take part in outdoor and adventurous activity challenges both individually and within a team" Rounders "hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending"	Athletics and Sports Day preparation Lot of dance to prepare for final school performance -Favourite sports/ Low organisation games
Computing	5.1 We are game developers Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with	5.2 We are cryptographers Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they	5.3 We are model controllers (linked to DT) design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and	5.4 We are web developers Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; & the opportunities they offer for communication and collaboration. Use search technologies effectively,	5.5 We are bloggers Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Select, use and combine a variety of software (including internet services) on a range of digital	5.6 We are architects Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and

	variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals	offer for communication and collaboration. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report	output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems & content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour;	devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Be discerning in evaluating digital content.	create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
MFL	• Demonstrate broadening vocabulary & developing ability to understand new words • Write phrases from memory, and adapt these to -create new sentences • Describe people, places, things & actions orally and in writing • Understand basic grammar rules & how	• Listen attentively to spoken language and show understanding by joining in and responding • Explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words • Engage in conversations; express opinions and respond to those of	• explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words • engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help	• understand basic grammar • how to apply these, for instance, to build sentences; and how these differ from or are similar to English • speak in sentences, using familiar vocabulary, phrases and basic language structures	• develop accurate pronunciation and intonation • read carefully and show understanding of words, phrases and simple writing • express opinions and respond to those of others • understand basic grammar • how to apply these, for instance, to build sentences; and how these differ from or	• broaden their vocabulary and develop their ability to understand new words • describe places and actions orally and in writing • read carefully and show understanding of words, phrases and simple writing • speak in sentences, using familiar vocabulary, phrases and basic language

	to apply these, for instance to build sentences and how these differ from or are similar to English	others • Appreciate stories, songs, poems & rhymes in the language.		• present ideas and information orally to a range of audiences • appreciate stories, songs, poems and rhymes in the language	are similar to English	structures

Grey filled boxes indicate that a subject is not being taught explicating during that half term

Please note that the specific skills being focused upon by the year group in each subject will be mapped out with greater detail in STP/MTP planning.