Long Term Plan Year 5 2024-25 (updated July 2024)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Books	 					
English / Book	**The Man Who Walked Between the Towers** Biographies/autobiographies, Information writing (Wikipedia pages), letters of advice (formal), interviews, news report, persuasive speeches **Vocabulary, Grammar & Punctuation** Recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms • Using passive verbs to affect the presentation of information in a sentence • Using expanded noun phrases to convey complicated information concisely	**Dragons must go / Twas' the night before Christmas** News report / Poetry SPAG – commas (lists/avoid ambiguity), adverbials, dashes, expanded noun phrases, conjunctions. **Twas' the night before Christmas/Poetry** Imitation – To learn the poem Vocabulary work Mini Write: Write a letter to Santa explaining what they want and why. Innovation: change the poem to a play script.	SPAG – standard and non-standard English, adjectives, punctuating speech, direct/indirect speech, capital letters for pronouns (revision), contractions, conjunctions (subordinate/ co- coordinating), apostrophes (single possession & plural possession), prepositions. Linking paragraphs, parenthesis.	**Alice in Wonderland /** Instructions Mini Writing: Imitation – To learn the instructions Vocabulary work Mini Write: create an advert for an item needed to get to Wonderland. Innovation – diary entry about going to the Wonderland. Independent – To write instructions SPAG – relative pronouns, punctuation, modal verbs, adverbials, prepositions, prefixes, determiners, synonyms, rhetorical questions, conjunctions,	**How butterflies came to be / letter writing recap** Traditional tale Imitation – To learn the traditional tale Vocabulary work Mini Write: To write a setting description using all five senses. Comprehension Innovation – Write a letter as Elder Brother. Independent – To write a traditional tale – How____ became to be. SPAG – conjunctions, standard English, relative clauses, adjectives, bullet points, prefixes, word classes, synonyms,	**Boy Who cried wolf/ Awesome Alps** Fable/ Non Chronological Report Imitation – To learn the fable Vocabulary work Mini Write: Write a character description for the wolf – detailed WANTED posters Comprehension Innovation – To write a news report, retelling the story. Independent – To write a fable as a new character. SPAG – relative clauses, subordinate clauses, SAT revision – capital letters, possessive pronouns , questions, contractions,

	• Relative clauses beginning with who, which, where, when, whose, that, or an omitted relative pronoun • Indicating degrees of possibility using adverbs [for example, perhaps, surely] or modal verbs [for example, might, should, will, must] • Use of commas to clarify meaning or avoid ambiguity • Using brackets, dashes or commas to indicate parenthesis **Beowulf** Epitaph, glossary, letter of advice, dialogue, recount, character and setting description, summarising captions, obituary Main outcome: Own version legend or missing chapter. **Vocabulary, Grammar & Punctuation** • Relative clauses beginning with who, which, where, when, whose, that, or an omitted relative pronoun • Indicating degrees of possibility using adverbs [for example, perhaps, surely] or modal verbs [for example, might, should, will, must] • Linking ideas across paragraphs using adverbials of time [for example, later], place [for example, nearby] and number [for example, secondly] or tense choices [for example, he had seen her before] • Use of commas to clarify meaning or avoid ambiguity	Independent – Twas the night before_____ SPAG – adverbs, moal verbs, semi colons, fronted adverbials, standard English, commas.		proper nouns, fronted adverbials. **Galileo Galilei –** Cross curricular to Science Week.	possessive pronouns, subordinate clauses.	word families, subordinate clauses, synonyms, SVO **Awesome Alps -** Non Chronological Report Linked to Geography topic – Where should we go on holiday?

	• Use of expanded noun phrases to convey complicated information concisely • Use of inverted commas and other punctuation to indicate direct speech • Devices to build cohesion within a paragraph [for example, then, after that, this, firstly] • How words are related by meaning as synonyms and antonyms [for example, big, large, little] • The difference between structures typical of informal speech and structures appropriate for formal speech and writing [for example the use of subjunctive forms such as If I were or Were they to come in some very formal writing and speech] (Y6) • Use of layour devices [for example, headings, subheadings, columns, bullets or tables] to structure text Innovation – recount of what happened to Iron Man Independent – Poem - substitution SPAG – auxiliary verbs, perfect form, parenthesis, commas, punctuation, relative clauses, pronouns, capital letters,					
Maths	Reasoning with large whole numbers Read, write, order and compare numbers up to one million	Multiplication and Division Identify multiples and factors Investigate prime numbers Multiply and divide by 10, 100 and 1000 (integers) Derived facts	Fractions and Decimals Read, write, order and compare decimals Round decimals to the nearest whole number	Fractions, decimals and percentages Add, subtract fractions with denominators that are multiples of the same number	Converting units of measure Convert between metric units of length, mass and capacity and units of time	2D and 3d shapes Classify 2-D shapes and reason about regular and irregular polygons Properties of diagonals of quadrilaterals

	⍰ Round numbers within one million to the nearest multiple of powers of ten ⍰ Read Roman numerals up to M <u>Problem solving with integer addition and subtraction</u> Use rounding to estimate ⍰ Use a range of mental calculation strategies to add and subtract integers ⍰ Illustrate and explain the written method of column addition and subtraction ⍰ Select efficient calculation strategies <u>Line graphs and timetables</u> Complete, read and interpret data presented in line graphs ⍰ Read and interpret timetables including calculating intervals	⍰ Illustrate and explain formal multiplication and division strategies such as short and long ⍰ Use a range of mental calculation strategies <u>Perimeter and Area</u> ⍰ Investigate area and perimeter of rectilinear shapes ⍰ Estimate area of non-rectilinear shapes	⍰ Represent, identify, name, write, order and compare fractions (including improper and mixed numbers) ⍰ Calculate fractions of amounts <u>Angles</u> Classify, compare and order angles ⍰ Measure a draw angles with a protractor ⍰ Understand and use angle facts to calculate missing angles	⍰ Multiply fractions (and mixed numbers) by a whole number ⍰ Explore percentage, decimal, fractions equivalence <u>Transformations</u> Coordinates in all four quadrants ⍰ Translation and reflection ⍰ Calculate intervals across zero as a context for negative numbers	⍰ Know and use approximate conversion between imperial and metric <u>Calculating with whole numbers and decimals</u> 2D and 3d shapes Mental strategies to add and subtract involving decimals ⍰ Formal written strategies to add, subtract and multiply involving decimals ⍰ Multiply and divide by 10, 100 and 1000 involving decimals ⍰ Derive multiplication facts involving decimals	⍰ Classify 3-D shapes ⍰ 2-D representations of 3-D shapes. <u>Volume</u> Use cube numbers and notation ⍰ Estimate volume ⍰ Convert units of volume <u>Problem Solving</u> Negative numbers and calculating intervals across zero ⍰ Calculating the mean ⍰ Interpret remainders ⍰ Investigate numbers: consecutive, palindromic, multiples
Science	**Forces** - gravity, friction, air and water resistance; levers, pulleys, gears (Switched on Science – Let's get moving) **<u>Knowledge/key learning:</u>** To know about forces and machines. Starting with the force of gravity, they then study friction forces, including air and water resistance, before investigating how simple machines work. **<u>Skills:</u>** Explain that unsupported objects fall towards the Earth because of the force of	**Living Things and Habitats** – life cycles of mammals, amphibians, insects and birds (Switched on Science – Circle of Life) **<u>Knowledge/key learning:</u>** To learn about life cycles of various species – including mammals, amphibians and birds. They also look at and describe the life process of reproduction in plants and animals. **<u>Skills:</u>** Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	**Properties and changes of materials** (Switched on Science – Material World) TEXT: Materials make science make sense **<u>Knowledge/key learning:</u>** To learn about materials and how they change. First they test properties of materials, before looking at how materials dissolve, what a solution is, and evaporation. Finally the children compare reversible and irreversible **<u>Skills:</u>** Compare and group together everyday materials on the basis of their	**Earth and Space** (Switched on Science – Out of this world) TEXT: Know it all SPACE **<u>Knowledge/key learning:</u>** To learn about space. Starting with the Solar System, they look next at how ideas about space have changed over time, before finally exploring what causes us to experience night and day on Earth. **<u>Skills:</u>** Describe the movement of the Earth, and other planets, relative to the Sun in the solar system	**Animals, including humans** (Switched on Science – Growing up and growing old) **<u>Knowledge/key learning:</u>** to describe the changes as humans develop to old age. Pupils draw a timeline to indicate stages in the growth and development of humans and learn about the changes experienced in puberty. **<u>Skills:</u>** Describe the changes as humans develop to old age **<u>Vocabulary:</u>** Pregnant Gestation period Adolescence Puberty	[Switched on Science – Super Science Unit – Super Scientists] **<u>Knowledge/key learning:</u>** To learn scientifically on a variety of quick challenges and longer tasks to learn about the different ways in which scientists work in the real world. This topic looks at the discoveries of famous scientists, the methods forensic scientists use and the various ways scientists tell others about new discoveries.

	gravity acting between the Earth and the falling object Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect **Vocabulary:** Gravity Weight Newton Non-contact. Isaac Newton Galileo Friction Air resistance Water resistance Force meter Reliable Lever Spring Gear Pulley **Curriculum links:** English: Write a fact file about the life of Isaac Newton. Maths: measuring distance/mass/time. DT: Gears and mechanisms **Resources:** Balls of different sizes and weights. A range of everyday objects to weigh. Force meters. A globe. Matchstick men or Lego characters. 'Read all about it' (Activity resource book, pg 31)	Describe the life process of reproduction in some plants and animals Vocabulary: Bulb Pollination Fertilisation Sexual reproduction Asexual reproduction Larva Gestation Metamorphosis Sperm Fertilisation Internal fertilisation External fertilisation **Curriculum links:** English: Write instructional texts for the growing of plants. Creative/persuasive writing on zoos and conservation. Debates or presentations for and against keeping animals in zoos. DT: Look at where our food comes from and plan to cook using fruit and vegetables the class grow **Resources:** Potatoes Range of seeds	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 and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating Demonstrate that dissolving, mixing and changes of state are reversible changes Explain that some changes result in the formation of new materials and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic **Vocabulary:** Hard Tough Strong Rigid Elastic Plastic Flexible Electrical conductor	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 **Vocabulary:** Solar System Sun Star Planet Centric Geocentric Heliocentric Timeline Night-time Daytime Orbit Time zone **Curriculum links:** Mathematics: Calculating distances, sizes of planets, time taken for orbiting the sun. Computing: To research about the solar system and different planets English: writing mnemonics Art: To draw and paint the solar system. **Resources:** Model of the solar system Art materials	Menstruation Arthritis Life expectancy **Curriculum links:** Maths: looking at the different timescales and different gestation periods. Plotting a graph English: writing a letter PSHE: How bodies are changing History: How the life span of a human has changed over time. DT: Designing a new product for the elderly. **Resources:** Large sheets of paper Access to images of people of different ages Disposable nappies – different brands Reusable nappies Sheets of newspaper Water (at room temperature) Plastic sandwich bags Plastic/paper cups Scissors A pair of old glasses with very scratched lenses, or covered in crumpled sellotape Thick gloves Ear plugs or cotton wool balls Crepe bandage to wrap around knees/elbows Ankle weights (optional) An old shirt A drinks bottle or jam jar	**Skills:** – To describe what a scientist is and the different ways in which they work and the discoveries of some famous scientists. To carry out some forensic tests and use forensic tests to solve a crime. To identify and choose good ways of letting others know about science in the news. **Vocabulary: Scientist** Timeline Analyse Pattern Survey Classified Fair test Forensic Fingerprint Chromatography Microscope DNA Evidence Debate Blog News. Science fair **Curriculum links:** **English:** Children write a short biography of a famous scientist or scientific inventor. **Mathematics:** Work out how to structure the scale to show the dates on a timeline. **ICT/Computing:** Use tablets or computers to research information. **Art:** Bring information to life using colourful art work. **PSHE:** Discuss the moral and

	'How does gravity act?' (Activity resource book, pg 30)		Thermal conductor Solution Solute Solvent Dissolve Evaporate Mixture Soluble Insoluble Filter Reversible/physical change Irreversible/chemical change Burning **Curriculum links:** English: • To write a detailed explanation of why they chose a particular material, giving reasons. • To design an informative leaflet. • To write instructions. Maths: measuring time **Resources:** Range of everyday materials – refer to the plan			cultural significance of some scientific discoveries. **History:** Gain a view of when scientific discoveries took place. **Resources:** A variety of sponges, a bowl and water A variety of sports balls A variety of bottled waters A globe of the Earth o Dirty water and any equipment A fingerprint sheet Ink pad Plaster of Paris Plastic foam Filter paper or similar Microscope Sheet of staff fingerprints Sheet of staff handwriting Sheet of staff clothes fibres Video cameras Resources for forensic techniques (see pg 90) Newspaper articles of science news Computers or tablets and access to the Internet Equipment to create reports

History (Rising Stars – Voyagers)	**Was the Anglo-Saxon period really a Dark Age?** **Knowledge/key learning:** In this unit, the children will learn about the world of the Anglo-Saxons. They will consider why they came to Britain and whether the period deserves to be called the 'Dark Ages'. Links will be made to prior learning, particularly to Year 4 Unit 2: Roman Britain. Throughout the unit, there is a strong focus on the range of sources that provide us with evidence about the people living at that time. The children will examine archaeological evidence, such as the Sutton Hoo ship burial and the Staffordshire hoard, while using written evidence from the time, including Beowulf, to provide context for the archaeological finds. They will learn about the importance of archaeological evidence and the work of the archaeologist, as well as the accidental finds of metal detectorists. **Skills:** • In this unit, the children will: • develop a chronologically secure knowledge and understanding of British and world history • develop the appropriate use of historical terms • understand how our knowledge of the past is constructed from a range of sources • construct informed responses that involve thoughtful selection and		**Would the Vikings do anything for money?** **Knowledge/key learning:** In this unit, the children will learn about the Vikings, and consider the reasons why they raided and then settled in Britain. They will investigate the popular view of the Vikings as raiders, ruthless in their ways of obtaining wealth. They will study primary sources of evidence, such as accounts by monks of the raid on Lindisfarne, as well as archaeological finds, to understand why this interpretation of the Vikings has become so popular. They will examine King Alfred's struggle and victory over the Vikings, linking back to Year 5 Unit 1: The Anglo-Saxons. **Skills:** develop a chronologically secure knowledge and understanding of British history • understand how our knowledge of the past is constructed from a range of sources • establish clear narratives within and across the periods • develop the appropriate use of historical terms • address historically valid questions about cause and significance • construct informed responses that involve the thoughtful selection and organisation of relevant historical information • note contrasts and connections over time		**What makes people go on a journey?** **Knowledge/key learning:** In this unit, the children will explore the question of why people go on a journey, and look at five very different types of journey in depth. The journeys selected span from the Tudor period to those undertaken today by refugees. The children begin by studying the voyages of Walter Raleigh, then the voyage of the Irish 3rd class passengers on the Titanic, before learning about the Kindertransport in World War Two and the voyage of the Empire Windrush. Finally, they will examine why refugees make dangerous journeys today. This approach supports the children in developing their chronological understanding, and helps them gain a greater sense of period. **Skills:** In this unit, the children will: • develop a chronologically secure knowledge and understanding of British and world history • establish clear narratives • address and devise historically valid questions about significance and cause and change • understand how our knowledge of the past is constructed from a range of sources	

	organisation of relevant historical information • note connections, contrasts and trends over time • Regularly address and devise historically valid questions about significance. **Vocabulary:** Invasion, settle, reconstruction, Dark Ages, pagan, plunder, Scandinavia, grave goods, archaeologist, excavation, function, sceptre, garnet, millefiori, hoard, metal detecting, saga, chronicle, illuminated manuscript, ecclesiastical, conversion, monastery, Old English, proof, evidence, counter argument, decay, excavate, preserved, deduction, interpretation, stratigraphy, classification, cataloguing, strata, shard, site, trench. **Prior learning:** Egyptians – year 3 Romans Year 4 **Curriculum links:** **Computing:** using the Internet to carry out research **Drama:** planning and carrying out a class debate **Geography:** locating Britain and the surrounding area on a map **Religious education:** exploring different people's beliefs **Resources:** Timeline Text Books Computers		**Vocabulary:** Raid, raider, monk, monastery, Viking, sacked, looted, abbey, migrate, settle, overpopulation, inheritance, causes, invader, settler, push and pull factors, significant, Wessex, monarch, cult, runes, longhouses, saga. **Prior learning:** Year 5 The Anglo Saxons Year 4 Roman Britain **Curriculum links:** • Geography: map work, migration settlements (Viking place names) • English: writing kennings, news report of a Viking raid, discussion and debate around the significance of events or individuals, mythology and legend around Sagas **Resources:**		• note connections, contrasts and trends over time. **Vocabulary:** Journey, migration, emigration, immigration, migrant, refugee, invader, settler, explorer, impact, voyage, status, Tudor, indigenous, portrait, symbol, adventurer, charter, Edwardian, sentimental, class, fact, opinion, persecution, anti-Semitism, pogrom, Kindertransport, Great Depression, prejudice, discrimination, settle, interpretation, British Empire, calypso, colour-bar, asylum seeker, economic migrant, illegal immigrant **Prior learning:** Year 4 Roman Britian Year 5 Anglo Saxons Year 5 Vikings Year 1 The greatest explorers **Curriculum links:** • English: write a poem about one of the journeys studied • Geography: map work, comparing countries around the world to identify similarity and difference related to push and pull factors • PSCHE: to have a better understanding of the nature of migration, collaboration, kindness, discrimination, fairness in the modern world **Resources:**	

Geography (Rising Stars – Voyagers)		**Is our country changing?** **Knowledge/ Key Learning** In this unit, the children will find out about the regions of the United Kingdom, discovering how some of these areas have changed over time. **Vocabulary** City Continent Country County GDP Great Britain Mountain Region River Settlement The British Isles Town Village **Resources** **Curriculum links** English: creating a presentation on sustainable change in the local area (Lesson 5) Computing: researching facts on the UK (Lesson 1) History: learning about regional effects of World War II (Lessons 2–6) PE: learning about planning for the 2012 Olympic and Paralympic Games (Lesson 2).		**Where should we go on holiday?** **Knowledge/Key Learning** In this unit, the children learn about the Alpine region of Europe, how the Alps were formed and how homes are adapted to the climate. They create a storyboard or digital book on mountain formation, design a sustainable eco-resort and produce literature for visitors to the area using geographical vocabulary. **Prior learning** The unit builds on previous work the children may have done investigating their local area and other regions of the UK earlier in this series. **Vocabulary** Tectonic plate Mountain range Agriculture Glacier Lake **Resources** Maps Atlases Globes Computers **Curriculum links** English: writing discussion texts on tourism in the Alps Science: learning about forces and friction in mountain formation (Lesson 2) Art & design:		**Where does our stuff come from?** **Knowledge/ Key Learning** In this unit, the children will find out about the UK's global trade links, investigating where everyday products come from and the journeys they take to our homes. This builds on work children may have done in KS1 looking at the geography of food. The children will also map the journeys taken by items, and research the pros and cons of buying local or imported goods. **Vocabulary** . Import, export, locally sourced, consumers, retailers, producers, recycled, Man-made, Native, season, biome, climate, fair trade, Raw material trade, and sustainability. **Prior learning** **Resources** Maps Atlases Globes Computers **Cross-curricular links** • English: compiling a leaflet explaining clothing production, with advice on ethical consumerism (Week 3); scripting a documentary discussing issues involved in buying locally produced

				management, simulating an avalanche (Lesson 5) Computing: creating a digital book with photos and mobile apps to inform tourists about the Alpine region, and their own area (Lesson 6) Modern foreign languages: French, German and Italian are spoken in the countries studied		versus imported products (Week 5); writing an adventure story on the journey of a product (Week 6). • Mathematics: creating a frequency chart and bar graph showing countries of origin for products at home (Week 1); handling data to create tables, graphs and charts (Week 4); calculating food miles (Week 5). • Science: learning about seasons, the life cycle of plants and seed dispersal (Week 2). • Art & Design: drawing and annotating: school uniform (Week 1); fruits and their origins (Week 2). • History: discussing exploration and trade, with a particular link to Tudor times (Week 2).
Art	Kapow - **Formal Elements: Architecture** **Knowledge and Learning** To draw a house from observation; interpreting the details accurately and drawing what they see rather than what they think it looks like. Based on a section of their drawing from Lesson 1, children create a dramatic monoprint using ink. To add vibrant colours to an image of a house. To design a building, choosing whether to draw			Take One Picture Kapow - **Art & Design Skills** Design, drawing, craft, painting and art appreciation **Knowledge and Learning** To develop observational drawing To design a new invention To create a continuous line drawing To create a collage and draw this from observation To successfully upscale a drawing and paint accurately To use imagination and visualisation to create an original piece of artwork	**Every picture tells a story** Kapow – Analysing famous artists' work **Knowledge and Learning** To evaluate and analyse creative work using the language of art, craft and design To understand that art can have both meaning and message To evaluate and analyse a work of street art and relate it to the news and current affairs and to British Values	

	either a perspective view, plan view or a front elevation of their original house design. After learning about what monuments are, children design their own to reflect something they want to commemorate **Skills** - Improve their mastery of art and design techniques, including drawing - Develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design - Develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design. -Learn about great artists, architects and designers in history. **Vocabulary** Texture, techniques, quality of paint, pattern, reflections, sketch,			**Skills** Children to learn and develop their skills in: design, drawing, craft, painting and art appreciation by designing their own invention, expanding on an observational drawing, using a poem to create a portrait, painting an enlarged section of a drawn collage and learning to 'think' like an artist. **Vocabulary** Annotation, collage, computer aided design, diagram, analytical observation drawing, continuous line drawing, portrait, prototypes, sketch, texture **Prior Learning** Develop skills in: design, drawing, craft, painting and art appreciation; creating an optical illusion print, replicating a plate in the famous willow pattern, carving sculptures out of soap, drawing a collection of still life objects, painting and mixing colours like Paul Cézanne and learning about the role of a 'curator' **Curriculum Links** **PSHE** – valuing differences **English** – Poetry	I know that a work of public art can have a very powerful message **Skills** - Become proficient in drawing, painting, sculpture and other art, craft and design techniques - Improve their mastery of art and design techniques, including drawing, painting and sculpture - Evaluate and analyse creative works using the language of art, craft and design **Vocabulary** Abstract, anonymous, brexit, emoji, immigration, mural, pictograms, racism, street art, symmetrical **Prior Learning** **Year 4-** Develop ideas from starting points throughout the curriculum. Collect information, sketches and resources. Adapt and refine ideas as they progress. **Curriculum Links** **PHSE** – Opinions **English** – articles, new report	

	combine line, colour, tones, tints, enhance, mood, brush, realistic, impressionistic, layers, range **Prior Learning** **Year 4 -** Develop ideas from starting points throughout the curriculum. Collect information, sketches and resources. Adapt and refine ideas as they progress. **Curriculum Links** **Maths –** Shapes and symmetry **Geography** – landmarks					
DT		**Structures –** Shell Structures - Marbulous Structures **Knowledge and Learning** To investigate free standing structures. To select and use a wider range of tools for a variety of practical tasks To select from and use materials and components to make a Stable frame structure	**Electrical Systems –** Programming Adventures **Knowledge and Learning** To know and understand how a floor robot moves. To accurately program instructions to control a floor robot. **Skills** Apply their understanding of computing to program, monitor and control their products by			**Food –** Serve a Salad **Knowledge and Learning** To understand and apply the principles of a healthy and varied diet To prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

		To evaluate their ideas against their own design criteria and consider the views of others to improve their work in the context of evaluating their marble run against the design criteria set in lesson 5. **Skills** Apply my understanding of structures. Explain different techniques used to join card to other materials I can apply these methods when making a marble run bridge. Select appropriate tools and equipment to help me create an accurate and precise finish. Evaluate and improve my design and technology work **Vocabulary** Free- standing, Structure, Support, Stiffen, Sturdy, Stable, Reposition, Strengthen, Reinforce, Investigate, Analyse, Product, Tools, Equipment, Practical, Technique, Accurate, Join, Shape, Aesthetics, Functional Bend, cut/shape/join, Existing, Iterative process, Testing, Design criteria Improving, High quality finish **Prior Learning** **Curriculum Links** **Computing:** Computer aided designs.	understanding what floor robots are and how they are programmed and controlled. **Vocabulary** Programming, Controlling, Floor robot, Bee bot, Input/output, Function, Annotated sketch, Pattern Cross sectional, Pieces Exploded diagrams, Prototype, Computer aided Obstacles, Adventure Adventure maps, Materials Properties, Innovative Cotton/Silk/Felt/Cardboard/ Paper/ Bubble wrap/ plastic Appealing, Design criteria Evaluate, Revise, Joining Monitoring **Prior Learning** Prior experience of programming a floor robot or software programme controlling a character or avatar (e.g. Scratch). **Curriculum Links** **Geography:** sources of electricity. **Computing:** Programming. **Maths:** Problem solving.			**Skills** Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens. **Vocabulary** Investigating, Evaluating Products, Analysing Health and safety, Healthy Balanced plate, Food groups Preference, Texture, Taste Smell, Appearance, Filling Sweet, Sour, Salty, Bitter Cutting, Spreading, Grating Mixing, Slicing, Chopping Knife **Prior Learning** KS1 have basic principles of a healthy and varied diet to prepare dishes and understand where food comes from. **Curriculum Links** **RE/PSHE**: Celebrating culture and seasonality – cooking and nutrition requirements. **Geography**: Settlement and trade – investigate food traded between countries; diet of people in different countries.

		Geography: Climate zone – to design an environmentally friendly structure. **Science:** Forces				
Computing (Purple Mash)	**Unit 5.1** Coding Weeks – 6 Programs – 2Code **Knowledge and Learning:** Designing and writing a program that accomplishes a specific goal. **Skills:** To turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code. **Vocabulary:** Action, Timer, Alert, Variable, Algorithm, Bug Code Design, Command, Control, Bug/ Debugging, Design Mode, Event, Get Input, If, If/Else, Input Output, Object, Repeat, Sequence, Selection, Simulation	**Unit 5.2** Online Safety Weeks – 2 Programs – Various **Unit 5.4** Databases Weeks – 4 Programs – 2Question, 2Investigate **Knowledge and Learning:** To discuss and understand the importance of keeping personal information safe. To understand issues concerning the reliability of sources and people online. **Skills:** To have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others. **Vocabulary:** Online Safety, Smart rules Password, Reputable, Encryption, Identity Theft Shared Image, Plagiarism Citations, Reference, Bibliography	**Unit 5.3** Spreadsheets Weeks – 6 Programs – 2Calculate **Knowledge and Learning:** Conversions of measurements Novel use of the count tool Formulae including the advanced mode using a spreadsheet to plan an event **Skills:** **Vocabulary:** Avatar, Binary Tree, Charts, Collaborative, Data, Database Find, Record Sort, Group and Arrange Statistics and reports Table Average, Advance Mode, Copy and Paste, Columns Cells, Charts, Equals Tool, Formula, Formula Wizard Move Cell tool, Random Tool, Rows, Spin Tool Spreadsheet Timer **Prior Learning:** What more than less than and equals to mean and apply them correctly,	**Unit 5.5** Games Creator Weeks – 5 Programs – 2DIY 3D **Knowledge and Learning:** To set the scene. To create the game environment. To create the game quest. To finish and share the game To evaluate their and peers' games. **Skills:** **Vocabulary:** Animation, Computer Game, Customise, Evaluation, Image, Instructions, Interactive, Screenshot Texture, Perspective, Playability **Prior Learning:** Internet safety pupils know not to give out personal information. \children know how to use the email feature on purple mash **Curriculum Links:** English-writing a response, Resources: purple mash	**Unit 5.6** 3D Modelling Weeks – 4 Programs – 2Design &Make **Knowledge and Learning:** To be introduced to 2Design and Make. To explore the effect of moving points when designing. To understand designing for a purpose. To understand printing and making. **Skills:** To discuss what makes a good model, use a range of materials and adjust work to make stronger. **Vocabulary:** **Co**mputer Aided Design (CAD),Modelling, 3D, Viewpoint, Polygon, 2D, Net 3D Printing, Points, Template **Prior Learning:** **Curriculum Links:** Maths sorting objects Resources: purple mash 2question	**Unit 5.7** Concept Maps Weeks – 4 Programs – 2Connect Knowledge and Learning To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. To use sequence, selection and repetition in programs; work with variables and various forms of input and output. To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. To 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. **Skills** Develop their ability to apply their Computing capability to support their use of language and communication, and support their learning in other areas.

	Prior Learning: understand and use variables, what is an algorithm and understand the difference between timers and repeat commands. **Curriculum Links:** Resources: purple mash	**Prior Learning:** What is personal information? why you should not share user name **Curriculum Links:** PSHE: keeping yourself safe Resources: purple mash	**Curriculum Links:** maths - graphs, number, more than less than Resources: purple mash touch typing Knowledge and Learning Introduce typing, how to sit at a keyboard, to learn and practice typing Skills: Develop the ability to touch type the home and bottom rows, to use two hands to touch type at a keyboard. Vocabulary posture, top row keys, bottom row keys, space bar Prior Learning: Curriculum Links English- spelling Resources: purple mash			**Vocabulary** Action, Alert, Algorithm Bug, Code Design Command, Control Bug/ Debugging Design Mode, Event Get Input, If/Else, Input Output, Object, Repeat Sequence, Selection Simulation, Prior Learning **Prior Learning** 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 output. 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 offer for communication and collaboration. **Curriculum Links** **English:** Non-Fiction reading

						Maths: Spreadsheet, database and co-ordinates.
PE	Hockey / Circuits	Yoga/Dodgeball/Dance Knowledge/Learning Children will have the opportunity to develop their movement via alteration of Yoga and Dance. The second slot will require children to work as a team to defeat their opponents in Dodgeball. Skills Children will develop flexibility, strength, technique, control, throwing, catching and balance. Vocabulary Currciulum links ENGLISH Learning of key vocabulary- stimulus, dynamics, formations, unison, relationship, phrase Understand and follow instructions Communication with a partner and group to express an idea Forming opinions and structuring verbal feedback	Hockey/Gymnastics Knowledge/Learning In this unit pupils will improve their defending and attacking skills playing even-sided games. They will start to show control and fluency in dribbling, sending and receiving a ball in a small game situation and under some pressure. Pupils will be encouraged to think about how to use tactics and collaborate with others to outwit their opposition. In this unit, pupils create longer sequences individually, with a partner and a small group. They learn a wider range of actions such as inverted movements to include cartwheels and handstands. Skills Dribbling Passing Receiving Tackling Creating and using space Shooting Vocabulary	Football/Tag Rugby Knowledge/learning Pupils will improve their defending and attacking play, developing further knowledge of the principles and tactics of each. Pupils will begin to develop consistency and control in dribbling, passing and receiving a ball. In this unit pupils will develop key skills and principles such as defending, attacking, throwing, catching, running and dodging. When attacking, pupils will support the ball carrier using width and drawing defence. Skills Throwing Catching Running Dodging Scoring Dribbling Passing Ball control Tracking / jockeying Turning	Basketball/Swimming Knowledge/Learning In this unit pupils will develop key skills and principles such as defending, attacking, throwing, catching, dribbling and shooting. Pupils will learn to use attacking skills to maintain possession as well as defending skills to gain possession. This unit is aimed at intermediate swimmers. Pupils focus on swimming more fluently and with increased confidence and control. Pupils work to improve their swimming strokes, learn personal survival techniques and how to stay safe around water. Skills Rotation Sculling Treading water Gliding Front crawl Backstroke Breaststroke Surface dives	Netball /Athletics **Knowledge/Learning** In this Athletics unit, children will have the opportunity to develop their existing running, jumping and throwing skills. They will be running for speed and endurance as well as revisiting the standing long jump and triple jump. To identify some of the basic rules of netball, understand the footwork rule, how to defend in netball, the correct technique to shoot and where to stand when a game begins. **Skills** Develop the following skills: Running Hopping Skipping Throwing Catching Collecting

		MATHS Counting to stay in time with music and a group Using distances to create accurate formations MUSIC Expressing an understanding of rhythm through movement Counting music to create movement	Symmetrical and asymmetrical balances Straight roll Forward roll Straddle roll Backward roll Cartwheel Curriculum links ENGLISH Learning of key vocabulary - interception, possession, opposition, defender, attacker, reverse. Understand and follow instructions. Understand rules and apply them to game situations. Discussing tactics and communicating these with a partner and group. MATHS Adding scores in the tournament to get a final placing. Creating goals and playing areas of set distances. Estimating distances away from a partner.	Goalkeeping Vocabulary Curriculum links ENGLISH Learning of key vocabulary - Interception, opponent, defend, attack, tracking, possession, maintain Understand and follow instructions Understand rules and apply them to game situations Discussing and communicating tactics with a partner and group MATHS Adding scores in the tournament to get a final placing Creating goals set distances apart	Floating Huddle and H.E.L.P. position. Vocabulary Curriculum links ENGLISH Learning of key vocabulary - Interception, opponent, defend, attack, tracking, possession, maintain Understand and follow instructions Understand rules and apply them to game situations Discussing and communicating tactics with a partner and group MATHS Adding scores in the tournament to get a final placing Creating goals set distances apart	Dribbling Chasing **Vocabulary** Athletics, discipline, throw, fling, discus, accuracy, distance, measure, technique, transfer, release, follow-through, throwing line, no-throw. **Curriculum links** PSHE- Being my best
RE	Beliefs into action (Sikhism) Prayer and Worship (Hinduism)	Christmas (Christianity) Knowledge/Learning Is the Christmas story true? We are learning to evaluate different accounts of the Christmas story and understand that	Beliefs and moral values (Sikhism) Hindu Beliefs (Hinduism)	Easter (Christianity)	Prayer and worship (Sikhism) Beliefs and moral Values (Hinduism)	Beliefs and Practices (Christianity)

		stories can be true in different ways.				
Music (Charanga)	Knowledge and learning . Skills Vocabulary Prior learning Curriculum Links	Knowledge and learning . Skills Vocabulary Prior learning Curriculum Links	. Knowledge and learning . Skills Vocabulary Prior learning Curriculum Links	Knowledge and learning Skills Vocabulary Prior learning Curriculum Links	Knowledge and learning. Skills Vocabulary Prior learning Curriculum Links	Knowledge and learning . Skills Vocabulary Prior learning Curriculum Links
PSHE ***SCARF***	**Me and My Relationships** Skills: Empathy, self-awareness, motivation, social skills Vocabulary: teamwork, emotions, feelings, challenges, healthy relationship, assertive Prior Learning: relationships, feelings towards others Curriculum Links: English, R.E	**Valuing Difference** Skills: Managing feelings, empathy, social skills, self-awareness Vocabulary: diversity, aggressive behaviour, feelings, safe, secret, unsafe, dares. Prior Learning: Knowing who to turn to in a situation Curriculum Links: English, R.E	**Keeping Myself Safe** Skills: Motivation, self-awareness Vocabulary: goals, targets, overcoming obstacles, consequences. Prior Learning: Understanding and achieving a goal Curriculum Links: English and R.E Resources: Stories related to lessons.	**Rights and Responsibilities** Skills: Self-awareness , managing feelings, empathy Vocabulary: healthy, safe, expenses, situation. Prior Learning: How to make sensible choices Curriculum Links: English	**Being my Best** Skills: motivation, social skills, managing feelings. Vocabulary: first aid, feelings, Adapt, belonging, accepted, rejected Prior Learning: Knowing about yourself and others, knowing about your community Curriculum Links: R.E, Art	**Growing and Changing** Skills: Achievement Aspirations Building self - esteem Diversity Growth Mindset Talents Vocabulary: Anticipation, over-reaction, empathy, empathise, anxiety, anxious Prior learning: Year 4 lessons
Trips / Experiences etc.		Walk around local area	Viking workshop		Science Museum Art Exhibition	