St. Margaret's Prep

Year 5 Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Maths	Understand numbers to 1,000,000 Multiplying and dividing by 10, 100 and 1000 Multiplying and dividing up to 4 digit numbers Round numbers to the nearest 100, 1000, 10 000 and 100 000 using number lines Compare numbers to 1 000 000 from pictorial representations, using lists and number lines x and ÷ decimals to two places on paper + and – decimals numbers Interpret negative numbers in context, count forwards and backwards with positive and negative numbers Know & use the vocab of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square and cube numbers, including their notation (n^2, n^3)		Understand that per cent relates to 'number of parts per hundred', know the % symbol, write % as a fraction over 100 and as a decimal Divide whole numbers to create fractions; to create mixed numbers and improper fractions when dividing whole numbers Add together unlike fractions where the sum is greater than 1, creating mixed numbers or improper fractions Subtract fractions with different denominators; subtract fractions from whole numbers Write improper fractions and mixed numbers using a number line and pictorial methods Solve problems using percentage and decimal equivalents of $^1/_2$, $^1/_4$, $^1/_5$, $^2/_5$, $^4/_5$ Compare quantities; compare fractions, decimals and percentages; convert fractions to decimals and percentages		Find the area and perimeter of composite shapes made up of rectangles Calculate the area of a shape Understand the volume of solids and find the volume of 3D shapes Find the capacity of cuboids Understand and use basic equivalences between metric and common imperial units Calculate the volume of cuboids both by counting cubes and by use of a formula Solve simple ratio and proportion problems Describe positions on the full co-ordinate grid Rotate a shape on a co-ordinate grid Describe the order of rotational symmetry of a shape Understand the term 'congruent' in relation to shapes after translation, reflection or rotation	

	Find the positive square root of a square number Use knowledge of the order of operations to carry out calculations (BODMAS) Interpret and construct pie charts Read/interpret information in a table Read and interpret information presented on a line graph where the data is represented by more than one line Read and interpret information presented in a table and turn it into a line graph; to determine relationships between data sets	Find a percentage of a number by converting the percentage to a fraction Reduce a fraction to its simplest form Recall and use equivalences between simple fractions, decimals and percentages Know the angle sum of a straight line, a triangle and of angles at a point and use this to find missing angles Construct triangles and a range of 2D shapes using protractors Know the names and qualities of acute, right, obtuse and reflex angles Measure angles using a protractor; identify two angles which add up to 180 degrees on a straight line Investigate the angles of various quadrilaterals, including squares and rectangles Investigate regular polygons Add and subtract amounts in decimals Add and subtract decimals to find the smallest possible sum and difference	Use language associated with probability such as fair, certain or likely, and to be able to refer to data in explaining whether a die is fair or biased Understand/use the probability scale from 0 to 1 Find the n^{th} term of a sequence Solve simple algebraic equations Write Roman numerals to 1000
	Priority is given to mental arithmetic, problem solving and reasoning throughout the academic year.		

English	The man who walked between the towers – Mordecai Gerstein (Narrative - Entertain) An Anthology of Intriguing Animals By Ben Hoare (non-chronological - Inform)	The Journey Home – Frann Preston-Gannon (Non-Fiction - Inform) A Christmas Carol (Classic Fiction & Narrative - Entertain)	Speaking Presentations ESB Style (Inform & Entertain) Secrets of a Sun King by Emma Carroll (Narrative - Entertain)	Secrets of a Sun King by Emma Carroll (Narrative - Entertain) A River By Marc Martin (Narrative - Entertain)	Short Story Writing unit Jabberwocky by Lewis Carroll (Narrative Poetry – Entertain)	The Wind in the Willows (Picture book) By Timothy Knapman (Narrative – Entertain and Inform)
	Comprehension skills and spelling are taught throughout the year within English lessons and guided reading sessions alongside Accelerated Reader. Spelling, punctuation and grammar skills are embedded in English lessons throughout the year.					
Science	**Properties & Changes of Materials & Gases** Learning Outcomes: Describe the properties, and make comparisons between solids, liquids and gases. Make distinctions and describe the particle structure of particles of solids, liquids and gases.	**Light** Learning Outcomes: Understand that there are natural and man-made sources of light Understand properties of light Understand that light travels to the eye in straight lines Use the idea that light travels in straight lines to	**Forces** Learning Outcomes: 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 Describe situations in which frictional forces are helpful as well as those in which they resist motion	**Living Things & Their Habitats** Learning Outcomes: 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 (sexual/asexual reproduction in plants).	**Evolution and Inheritance** Learning Outcomes: Give reasons for classifying plants and animals based on specific Characteristics. Classify living things in major taxonomic groups (Carl Linnaeus). Use keys to identify plants and animals.

	Recognise that air is a material and that it is one of a range of gases which have important uses. Understand the properties of gases in connection with diffusion, compression, weight, volume and force Know that liquids evaporate to form gases and that gases change shape and flow from place to place. Explain the relationship between solids, liquids and gases in terms of the water cycle. Understand the burning triangle and how to put out a fire.	explain that objects are seen because they give out or reflect light into the eye by investigating how we see colours. Understand that light can be reflected and refracted	Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect Identify how forces are measured (newton N) and identify the direction in which they act. That when objects (table, spring) are pushed or pulled, an opposing pull or push can be felt. Know that a unit of force is the newton and that forces can be measured using a force meter.	Name and explain the functions of some parts of the flower. Describe the processes of pollination, fertilisation, seed dispersal and germination. How plants and animals found in different habitats differ and how they are adapted to their environment (nocturnal, hibernation, migration). Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.	
	During years 5 and 6, pupils will be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary				

	• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • using test results to make predictions to set up further comparative and fair tests • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments					
History		**Tudors** To be familiar with the different Tudor monarchs To compare with life of everyday people To be familiar with Tudor buildings and their internal features To learn about Henry VIII (less about 6 wives, more emphasis reformation of Christianity) – what evidence do we have? To understand the reasons for Royal marriages		**Ancient Egypt** What do the hieroglyphs tell us of Egyptian culture and society To understand what an archaeologist does To understand the difficulty of making conclusions about the past using only material remains To describe different features of a historical period To source, sort and interpret information on Ancient Egypt		**Crime and punishment chronology unit** To explore how crime and punishment methods have evolved since the medieval period. Draw upon similarities and differences To consider how people's beliefs impacted the judicial system Reflect on cause and consequences of significant events such as the Peasant revolt and the 17th Century witch hunts.

		To introduce some of the changes that were taking place in people's ideas at this time. To examine the reasons why Tudor people explored outside Europe. To examine life at Sea. To research the life of a famous seafarer (Drake) and place in the context of the 16th C To look at different points of view and different ways of portraying the same story To understand the effect of Tudor exploration on our lives today and position this within the reign of Elizabeth I and the political situation of the time.		To compare myth and fact in Egyptian life and to be aware that different stories about the past can give different versions of what happened To make deductions from historical sources To learn about the importance of the afterlife To study farming, everyday life, houses and clothes, the role of women To learn about important pharaohs and the Great pyramid		Reflect on why crime rates have peaked at various times in history and use historical records to find out more To learn about key historical figures such as Sir Robert Peel and Matthew Hopkins and evaluate the impact they had on law and justice at the time
Geography	**South America**		**What is a River?**		**Mapping and location**	

	Use a range of maps to explore the topography and climate of South America. Compare different countries within the continent. Explore the area of the Amazon Rainforest and investigate how deforestation affects different groups within society. Discover how the rainforest can be used in a sustainable way. Explore the diverse cultures within South America, finding out about festivals such as the Rio Carnival **Locational Knowledge** North America United Kingdom Latitude and longitude Northern and Southern Hemisphere		**Locational Knowledge** Europe including Russia United Kingdom Latitude and longitude Northern and Southern Hemisphere **Place Knowledge** A region of the United Kingdom **Human & Physical** Rivers and the water cycle Natural resources **Skills & Fieldwork** Maps, atlases, globes and digital/computer mapping Eight points of compass Four and six figure grid references Map symbols and key and the use of Ordnance Survey maps		Location study of North Devon linked to Year 5 residential to Bideford. Where is it located and how would we get there? Use maps to explore the area of Bideford. Identify key features of the area using a range of different maps. Explore North Devon as a tourist destination. What has it to offer? **Locational Knowledge** UK **Place Knowledge** A region of the United Kingdom **Human & Physical** Types of settlement and land use Economic activity Natural resources **Skills & Fieldwork**	

	Human & Physical Climate zones Biomes and vegetation belts Types of settlement and land use Natural resources **Skills & Fieldwork** Maps, atlases, globes and digital/computer mapping Map symbols and key		Fieldwork –observe, measure, record and present		Maps, atlases, globes and digital/computer mapping Eight points of compass Four and six figure grid references Map symbols and key and the use of Ordnance Survey maps	
RE	**Prayer & Worship** Key Question: What is the best way for a Hindu to show commitment to God?	**Christmas (Incarnation)** Key Question: Is the Christmas story true?	**Hindu Beliefs** Key Question: How can Brahman be everywhere and in everything?	**Easter (Salvation)** Key Question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?	**Beliefs & Practices** Key Question: What is the best way for a Christian to show commitment to God?	
PSHE	**Me & My Relationships**	**Rights & Responsibilities**	**Valuing Difference**	**Being My Best**	**Keeping Myself Safe**	**Growing & Changing**
DT	Pulleys		Breadmaking		Cams	
MFL	Revise numbers up to 70 and all 80s. Revise colours, seasons and months. Describe what you wear or don't wear. Express some opinions. Understand word order and agreements when using adjectives.		Ask where someone lives and respond. Ask somebody where they live. Say where you live. Name various types of accommodation and location. Name some rooms in the house. Say which floor a room is on. Understand word order and agreements when using adjectives.		Revise numbers up to 100. Understand and use "Quelle heure est-il?". Tell the time using the 12-hour clock. Learn some sports used with "Jouer". Revise some sports used with "Faire" and partitive articles (du, de la, de l').	

	Say what you or other people wear at different times of the year or for different occasions. Develop their ability to use "Porter" in the present tense. Christmas.		Understand and use "Il y a ...","Il n'y a pas de/ d'..." Ask where something is and respond. Name a few pieces of furniture. Some simple prepositions of place. Understand word order and agreements when using adjectives. Develop their ability to use "Habiter" in the present tense. Easter.		Revise some places in town and the translations of "to the" (au/à la/ à l'). Ask what people do at the weekend. Say what they do at the weekend. Express some opinions on their hobbies. Use simple key phrases to describe their daily routine. Continue to manipulate common regular _ER verbs in the present tense. Practise common irregular verbs (Aller, Faire) in the present tense.	
Computing	**Computer Networks and Systems - Systems and searching** •Input, output and processes •Understand how search engines work •Learn how information is transferred	**Creating Media - Video production** •Investigate the use of devices and software in video production •Plan a video in groups •Capture, edit and manipulate video	**Programming - Selection in Physical computing** •Programming - conditions and repetition •Programming Micro:bits •Selection through 'if....then'	**Creating Media - Introduction to vector graphics** •Using tools to create images •Exploring objects – lines and shapes •Layering, grouping and duplicating	**Data handling – Flat file databases** •Organising data in records •Using database tools, answering questions •Creating graphs and charts	**Programming – Selection in quizzes** •Selection through use of 'if...then...else' •Writing algorithms and coding in Scratch •Design and code a quiz by controlling outcomes

Music	Part-singing techniques for choral performance Music for a purpose- listening and composing (Black History Month) Introduction to the ukulele Recorder work: individual improvisation skills (Blues); Recorder Karate programme World music exploration – listening to and playing cyclic patterns in African and Gamelan music Link to: Tudor music (Musical Contexts)	Part-singing techniques for choral performance Recorder Karate programme and ensemble performance Individual music history project Manipulating musical patterns and structures Link to: Ancient Egypt (Musical Contexts)	Developing aural and notation awareness through exercises Synthesised sounds and sound sources Ensemble percussion work – genres, world music, cyclic patterns Musical theatre skills Playing and singing musically from notation (solo and ensemble), folk songs Link to: Victorians (Musical Contexts)
Art	**Talking Textiles** What are textiles? How and why are textiles made? Weaving, knitting, crocheting etc. Look at and 'touch' real examples. How and why are textiles decorated? Beads, buttons, threads, precious stones, silk flowers, ceramics, metals etc. Look at and 'touch' real examples. Symbolic decorations/patterns - discuss. How have stories been represented through the centuries in textiles, eg *Bayeux Tapestry*.	**Landscapes and Seascapes** What are landscapes and seascapes? Discuss and explore. Look at the work of a wide variety of artists, past and present, to show the many different styles of land and seascape painting. Learn the basic skills required to draw and paint simple land and seascapes. Experiment with different materials, such as acrylic and watercolour paints, palette knives, brushes and scrapers, to discover the different ways of painting land and seascapes.	**Objects and their Meaning** Learn how to draw and paint three basic shapes used in still life drawing (spheres, cones and cylinders) showing light and shadow (tone). Discuss composition, relationship between objects, negative space, foreground and background. Learn how to arrange simple objects in an interesting way. Learn how to cross hatch to show light and shadow.

	Look at different textiles from different times and cultures and discuss: colours, textures, patterns etc.	*Cross-curricular link* *with Geography* field trip provides an excellent opportunity for firsthand land and seascape sketching and photography.	Learn how to show light and shadow on objects using paint and collage.
Sport	Girls - Hockey: travelling with ball, sending, receiving, shooting, tactical & positional play, 7-aside games. Boys - Rugby: apply speed and direction to passing and dodging to create space, outwit opponents and attack and defend as a team. All - Cross-Country, Dance: thematic work, expression, composition and performance. Gym: climbing Swimming: development of all 4 strokes.	Girls - Netball: tactics, development of game. Boys-Hockey: travelling with ball, sending, receiving, shooting, intro to 7-aside games. Health Related Fitness: speed, stamina and jumping skills. Swimming: surface dive, linking tasks, personal survival, synchronised swimming.	Girls /Boys Cricket: tactics, development of game. Athletics: rounders ball throwing, long and high jump, speed work - 80m, distance work - 600m. Tennis: smash, placement of shots, games. Swimming: diving, tumble turns, timed and distance events, competitions.
	Matches with other schools take place throughout the year, from Year 3 upwards.		