St. Margaret's Prep

Year 6 Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Maths	Create and identify numbers to 10 000 000; to write in numerals/words numbers to 10 000 000. Compare, round & order numbers to 10 000 000. Multiply 3- and 4-digit numbers by 2-digit numbers without regrouping or renaming. Divide 3-digit numbers by 2-digit numbers using a variety of strategies. Find the largest common factor (lcf) of 3-digit numbers; use x and ÷ to find lcf. Use prime numbers to create other numbers; explore prime numbers above 100. Simplify fractions using ÷ and common factors; represent fractions using concrete materials. Compare and order fractions by finding common denominators and factors. Add and subtract fractions with different denominators and mixed numbers.		Use bar models to solve word problems involving the four operations. Create and solve word problems that apply the bar model heuristic and working backwards as the main strategies. Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $^1/_4 \times {}^1/_2 = {}^1/_8$). Divide proper fractions by whole numbers (e.g. $^1/_3 \div 2 = {}^1/_6$). Extend multiplication and division of fractions to any fractions. Consolidate understanding of ratio by constructing a scale drawing. Use ratio and fractions to compare objects; find the relationship between ratios, percentages and fractions. Determine the ratio of a quantity using concrete materials; simplify ratios using concrete materials in addition to division. Compare more than two quantities using the		Construct more complex 3D shapes using nets. Name the parts of a circle; calculate diameter and radius using parts of a circle. Investigate the value of 'pi' and use it to calculate the area and circumference of a circle using the radius and diameter. Draw quadrilaterals with specific side lengths and parallel lines; find the perimeter of shapes and name trapeziums and parallelograms. Construct triangles using measurements and angles as the starting point; use a protractor and compasses to draw triangles using angles. Investigate opposite angles; use prior knowledge of angles to solve problems involving angles. Determine the formula for the volume of cubes & cuboids; apply it to calculate volume of shapes. Estimate the volume of objects and	

	Read and write decimals to thousandths. Multiply decimals by whole numbers. Divide decimals using bar models, number bonds and long division as key strategies. Divide up to 4 digits by a 2-digit whole number using the written method of long division. Expand brackets/collect like terms inside () Convert units of measure into different units; to use knowledge of decimals and fractions to help convert units.	term 'ratio'; use bar models to express ratios where there is more than one quantity. Compare numbers using ratio; to make decisions about simplifying ratios using division. Determine a pattern using concrete materials and pictorial representation; use a table to identify a repeating pattern; express the relationship between consecutive numbers in terms of a symbol or letter. Use a table to identify a pattern; write algebraic expressions using each of the four operations. Use examples to identify rules; write algebraic expressions using each of the four operations; evaluate algebraic expressions including the use of inverse operations. Use formulae to solve problems; replace a letter/ variable with a number & solve the equation; use inverse operations to solve equations. Find the area/perimeter of rectangles; calculate perimeter using the known area and vice versa. Find and calculate the area of a parallelogram; use concrete materials and prior understanding of area to construct a	spaces; calculate the volume of boxes using the formula for volume of cubes and cuboids. Solve word problems involving the volume of cubes and cuboids; apply the formula for the volume of a cube or cuboid. Describe reflection using a mirror line and the terms ‘object’ and ‘image’. Reposition objects so they can be reflected in the x and y axis as the mirror line. Describe the movement of objects using the terms ‘translation’ and ‘reflection’. Read and interpret line graphs. Add, subtract, multiply, divide negative numbers. Plot the graphs of linear functions, where y is given explicitly in terms of x; recognise that equations of the form y = mx + c correspond to straight-line graphs.

			formula for the area. Use prior knowledge of area to determine and solve the area of a triangle; use and apply the formula for the area of a rectangle to solve problems involving triangles.			
	Priority is given to mental arithmetic, problem solving and reasoning throughout the academic year.					
English	Goodnight Mr Tom by Michelle Magorian (Historical Fiction - Entertain) Survivors by David Long (Non-chronological Reports - Inform)	Macbeth, Leon Garfield Animated Tales (Classic Fiction/Poetry - Entertain)	Shackleton's Journey by William Grill (Picture book/Inform)	ESB – Level 1 Debating (Persuade/Inform) Narrative Poetry Jabberwocky by Lewis Carroll (Poetry)	Around the World in 80 Days (Classic Fiction - Entertain)	Curiosity – the story of a Mars Rover (Modern Fiction 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. See here for further information.					
Science	**Electricity** Learning Outcomes: Understanding of power of electricity. Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.	**Light** Learning Outcomes: Recognise that light appears to travel in straight lines at a finite speed in a unform medium. Observe how light is reflected at plane surfaces.	**Animals Including Humans** Learning Outcomes: To know that all living things are made up of cells To understand the structure of cells To use a microscope to examine cells	**Acids & Alkalis** Learning Outcomes: Know that solutions can be classified as acidic, neutral or alkaline. Know how to use indicators (Litmus or natural) to classify solutions.	**Plants** Learning Outcomes: Recognise that a green plant needs light and water to grow well and that it produces new material from air and water in the presence of light. Recognise that green	**Earth & Space** Learning Outcomes: Consider the ideas about how the solar system have developed Describe the relative positions

	Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Understanding of circuit symbols; resistors; electromagnets; fuses and short circuits. Increased awareness of the dangers of electricity.	Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. Explain that we see things because light travels from light sources to our eyes or from light sources to objects then to our eyes. The eye Use the idea that light travels in straight lines to explain why shadows have the same shape as the object that cast them. Predict the size of shadows when the position of the light source changes.	To describe the changes as humans develop to old age. Explain the main stages of the human life cycle and compare to different mammals. Describe the structure of human reproductive systems. Discuss the physical and emotional changes which take place during adolescence.		plants are the food source for all animals. Recognise that plants get food from the Sun in the form of starch. Make careful observations of plants kept in the dark and light and the differing amounts of starch.	of the planets in relation to the Sun Identify features of the planets in our solar system investigate whether there is, or was life on Mars
	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	**World War II** Investigation and evaluation. Organising information chronologically. Understanding of how events of the past have shaped our lives today. To understand what was Britain like in the 1930s. To understand when World War 2 started and why. To learn about bombing raids on Britain (Blitz).			**Mayans** When and where the Maya lived and the type of environment they lived in. Understand the difficulties of sustaining a civilization in a rainforest environment. Learn about the Maya writing system and its uses. The similarities and differences between the Maya writing system and ours. What the		**1948 & Onwards** To understand that life was changed by the war. To learn about changes that have occurred in Britain since 1948 and some of the reasons for the change, To place events precisely in time. That the type of information available depends on the period of time studied. To carry out their

	To understand how people protected themselves. To understand the need for evacuation. To find out the experiences and feelings of evacuees from a wide range of sources. To understand the effect of war on everyday life. To learn what rationing was and how it worked. To learn about the end of WW2. To learn about how people celebrated the end of the war. To make connections between WW2 and today (the UN)			hieroglyphs tell us of Maya culture and society. To learn about Maya trade goods. To be able to make calculations using the Maya numerical system. To explain some of the similarities and differences between the Maya and U.K. mathematical system. To learn about the inter-dependent nature of Maya cities. To learn about Maya myth of creation in the Popul Vuh. Learn about the ancient Maya ball game and its cultural significance and compare it with other spectator sports past and present.		own enquiry. To make links between changes. To present work to class. To research from primary sources including own family.

				To understand what an archaeologist does. To understand the difficulty of making conclusions about the past using only material remains.		
Geography		**Lego League** **Why is Fairtrade Fair?** Areas of Enquiry: **Locational knowledge** Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries and	**Active Iceland (Volcanoes and Plates)** Areas of Enquiry: **Locational knowledge** The countries (including the location of Russia), major cities and key physical and human geography of Europe. Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic		**Mountains** Areas of Enquiry: **Locational knowledge** Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries and major cities. Name and locate counties and cities of the United Kingdom,	

		major cities. **Human and physical geography** Describe and understand key aspects of: Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water. **Geographical skills and fieldwork** Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied. Use the eight points of a compass, four and six-figure grid references, symbols and key	and Antarctic Circle, the Prime/Greenwich Meridian and time zones. **Place knowledge** Understand geographical similarities and differences through the study of human and physical geography of a region in a European country. **Human and physical geography** Describe and understand key aspects of: Physical geography including climate zones and volcanoes. Human geography including economic activity and trade links, and the distribution of natural resources including energy. **Geographical skills**		geographical regions and their identifying human and physical characteristics, key topographical features (including hills,, mountains, coasts and rivers), and land-use patterns and understand how some of these aspects have changed over time. **Place knowledge** Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country and a region within North or South America. **Human and physical geography** Describe and understand key aspects of:	

		(including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.	Use map, atlases, globes and digital or computer mapping to locate countries and describe features studies.		Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle. Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water. **Geographical skills** Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied. Use the eight points of a compass, four and six-figure grid references, symbols and key (including	

					the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.	
RE	**Islam** Key Question: What is the best way for a Muslim to show commitment to God?	**Christianity** Key Question: How significant is it that Mary was Jesus' mother?	**Beliefs & Meaning** Key Question: Is anything ever eternal?	**Easter** Key Question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?	**Beliefs & Moral Values** Key Question: Does belief in Akhirah (life after death) help Muslims lead good lives?	
PSHE	**Me & My Relationships** Link to detailed scheme of work here	**Rights & Responsibilities** Link to detailed scheme of work here	**Valuing Difference** Link to detailed scheme of work here	**Being My Best** Link to detailed scheme of work here	**Keeping Myself Safe** Link to detailed scheme of work here	**Growing & Changing** Link to detailed scheme of work here
DT	Structures Anderson Shelters		Textiles		Electrical Mechanisms Moving Vehicles	
MFL	**French** Reinforce numbers up to 100 and understand how to build higher numbers. Give personal information about self and others. Identify members of the family. How to express possession: my…, your… Reinforce the knowledge of some description key phrases (height, build, hair and eyes). Practise "être" and "avoir" in the present		**Spanish** Practise numbers 1-31 and tens up to 100. Understand and use greetings and courtesies. Learn days of the week and months of the year. Ask and answer questions about personal identity (name, age, place of residence and birthday). Say if they have pets, or not and respond to the corresponding question.		**French** Reinforce and extend words for food and drinks. Say if a particular type of food is healthy or unhealthy. Revise and extend sport and leisure activities. Say if something is	**Spanish** Practise numbers up to 100. Say they are hungry or thirsty. Identify and name some drinks and snacks at the café. Learn some key phrases at the café.

	tense. Use some connectives and intensifiers. Reinforce their understanding of word order and agreements when using adjectives. Express and justify their opinions. Join in new songs and rhymes.		Identify and name some colours. Say what colour their pet is. Find out about the Christmas / New year celebrations and some famous festivals (as time allows) in Spain. Identify some classroom objects. Say what objects are in the classroom using "Hay / No hay". Name some school subjects. Say what school subjects they learn on different days. Express simple opinions on school subjects. Extension: understand justifications starting with "porque".		healthy or unhealthy. Say what they do to lead a healthy life. Reinforce regular _ER verbs and the irregular verbs "Aller, Faire" in the present tense.	Create their own conversation on buying snacks and drinks at the café. Identify and name some places in town. Ask for and give basic directions to places in town.
Computing	**Programming and Control:** Technology- Lego EV3 – Robots and Robotic Technology. **Creating and Publishing:** Multimedia Presentation Using Technology. Touch Typing -ongoing throughout year Ongoing: Online Safety and touch typing	**Programming and Control:** Technology- Lego EV3 Software – Robots and Robotic Technology SCRATCH Programming Creating and Publishing: As AU1. Ongoing: Online Safety and touch typing	**Programming and Control:** 'Swift Playground' **Coding Using Data:** Spreadsheet Modelling Database work Ongoing: Online Safety and touch typing	**Using Data:** Spreadsheet Modelling Database work Ongoing: Online Safety and touch typing	**Digital Media:** Web Green Screen/iMovie/Drone movie making and photography Ongoing: Online Safety and touch typing	**Programming and Control:** PYTHON **Programming**: more advanced apps and programs Ongoing: Online Safety and touch typing

Music	Ensemble and solo singing and choral leadership skills Three-/four-chord songs Individual composition project using *Garage Band* Recorder work: improvisation (Latin/Jazz) and independent note reading skills; Recorder Karate programme Group composition and arrangements Link to: WW2 and twentieth century music (Musical Contexts)		Leading parts for choral performance Study of Samba and percussion ensemble performance Return to Ukulele: chords and other techniques Music history overview and timeline Recorder Karate programme		Ensemble and solo musical theatre skills Putting on a show – elements, skills, structure etc Review of music theory, history, genres and styles Sight reading skills, playing and singing from notation (including Recorder Karate programme) Independent performance skills	
Art	**Portraiture** Skills: Basic understanding of facial proportions and tone. Drawing, observational skills, collage. Projects: Learn how to draw faces. Study the work of artists from around the world and the way in which they		**Art in different cultures** Skills: Research, design, planning, developing, clay 3D skills, organising, instigating a given task. Projects: Make a mask or a piece of Artwork that has been inspired from a different culture. Investigate African patterns, traditions and art techniques from different tribes/cultures. Explore ways in which masks have been		**Nature's Portfolio** Skills: Translating 2D into 3D, composition, observation, research, photography, mark-making, modelling, printing. Projects: A positive focus on nature and the importance of being in touch with it if we are to grow and develop.	

	paint/create faces (portraits) Look at the materials used and how they are used. Look at abstract versus figurative examples of faces. What is portraiture? Discuss aims in portraiture such as *likeness, personality & mood*. Study examples. Study the proportions of a face. Look at tone. Study the work of a variety of artists who have specialised in facial distortion	used in different times and cultures to portray the story characters. Explore the different personalities and moods and feelings conveyed by different masks, scary, romantic, powerful, meek, celebratory etc. Look at the work of well-known mask makers, and costume designers. .	Use printing as a medium to help translate observations of nature into pieces of thoughtful, expressive and detailed study. Focus on pattern, composition and colour. Use clay as a medium to help translate observations of nature into 3D forms. Focus on patterns, textures and mark-making. Consider the difference between *cutting into* clay (incised textures) and *adding to* clay (applied textures). Teach scratch/slip/stick method to add applied textures.
Sport	Girls - Hockey: travelling with ball, sending, receiving, shooting, 7-aside games, development of team play. 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: use of large apparatus, individual and small group sequence work using flight.	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: aquatic skills, personal survival, synchronised swimming, water polo.	Girls Rounders/Boys Cricket: development of skills leading to full games. Athletics: timed and measured activities, long and high jump, 80m sprint, 200m & 600m distance runs, foam javelin, rounders/cricket ball throwing. Tennis: placement of shots, full games - singles & doubles. Swimming: competitions, starts and finishes, times and distances. *Outdoor activities – UKSA.*

	Swimming: development of all 4 strokes.		
	Matches with other schools take place throughout the year, from Year 3 upwards.		