ST MARGARET'S CALNE
CO-EDUCATIONAL NURSERY & 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.		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.		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	

	Add and subtract fractions with different denominators and mixed numbers. 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.	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 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.	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 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.

			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 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.		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.	
	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)	ESB – Level 1 Debating (Persuade/Inform) Shackleton's Journey by William Grill (Picture book/Inform)	Narrative Poetry The Highwayman by Alfred Noyes (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.					
Science	**Electricity** Learning Outcomes:	**Animals including Humans**	**Animals Including Humans** Learning Outcomes:	**Acids & Alkalis** Learning Outcomes:	**Earth & Space** 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. 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.	Learning Outcomes: To identify the function of the circulatory system Explore the function and components of blood To understand the effect of exercise and rest on the pulse rate To understand the impact of diet and lifestyle on the human body	To know that all living things are made up of cells To understand the structure of cells To use a microscope to examine cells 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.	Know that solutions can be classified as acidic, neutral or alkaline. Know how to use indicators (Litmus or natural) to classify solutions.	Describe the movement of the moon relative to the Earth. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. Describe the Earth, Sun and moon as spherical bodies. Understand how the Earth's tilted axis causes the seasons Consider ideas about how the solar system have developed Describe the relative positions 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		**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

	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)			writing system and ours. What the 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		precisely in time. That the type of information available depends on the period of time studied. To carry out their own enquiry. To make links between changes. To present work to class. To research from primary sources including own family.

				game and its cultural significance and compare it with other spectator sports past and present. To understand what an archaeologist does. To understand the difficulty of making conclusions about the past using only material remains.		
Geography		**World Trade** 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	**Antarctica** 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		**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. **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**	Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic 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		on their environmental regions, key physical and human characteristics, countries and major cities. Name and locate counties and cities of the United Kingdom, 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.	

		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.	activity and trade links, and the distribution of natural resources including energy. **Geographical skills** Use map, atlases, globes and digital or computer mapping to locate countries and describe features studies.		**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: 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**	**Valuing Difference**	**Keeping Myself Safe**	**Growing & Changing**	**Being My Best**	**Rights & Respect**
DT	Structures Anderson Shelters		Textiles		Electrical Mechanisms Moving Vehicles	
MFL Spanish	Find out where Spanish is spoken. Understand and use greetings and courtesies. Practise numbers 1-31 and tens up to 100. Learn months of the year. Ask and answer questions about personal identity (name, age, place of residence and birthday).		Find out about New year celebrations in Spain. Learn days of the week and how to describe their timetable using simple times. Name some school subjects. Say what school subjects they learn on different days. Express simple opinions on school subjects.		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. Create their own conversation on buying snacks and drinks at the café.	

	Say if they have pets, or not and respond to the corresponding question. Say what their pet's name is. Identify and name some colours. Name their family members Find out about the Day of the Dead in Mexico and other countries in Latin America. Find out about the Christmas celebrations (as time allows) in Spain.	Extension: understand justifications starting with "porque". Identify some classroom objects. Say what objects are in the classroom using "Hay / No hay".	Identify and name some places in town. Ask for and give basic directions to places in town. Find out about the festival of "La Tomatina" in Buñol, Spain.
Computing	**Flat file databases and spreadsheets** Organising Data Using database tools and logic to answer questions. Formatting data, formulas and calculations. **Creating Media** - **Web-page creation** What makes a good webpage. Design and evaluate a webpage. Consider copyright and fair use of media.	**Programming** - **Variables in games** Understanding variables. Explore simulations and modify. Create games using variables. **3D modelling** Create hollow objects. Plan, develop and evaluate own 3D model.	**Sensing movement** Using skills of sequence, repetition, selection and variables. Building and testing code. **Communication and collaboration** Data transfer. Using the internet for communication and collaboration. Appropriate use of sharing online.
	Online Safety – Taught across the year, covering topics such as assessing benefits/risks, recognise virtual influencers and AI, support peers, active/passive/assumed consent, understand explicit content risks. **Typing skills** – Typing longer paragraphs (securing knowledge of the keyboard).		

Music	Ensemble and solo singing and choral leadership skills Three-/four-chord songs Group composition and arrangements Link to: WW2 and twentieth century music (Musical Contexts)	Leading parts for choral performance – Prep choir Return to Ukulele: chords to accompany a song and strum patterns Study of Samba and percussion ensemble performance	Ensemble and solo musical theatre skills Putting on a show – elements, skills, structure etc Exploring composition and arranging using music technology *Garage Band* Sight reading skills, playing and singing - 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 paint/create faces (portraits) Look at the materials used and how they are used. Look at abstract versus figurative examples of faces.	**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 used in different times and cultures to portray the story characters. Explore the	**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. Use printing as a medium to help translate observations of

	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	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. .	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.	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.

	Gym: use of large apparatus, individual and small group sequence work using flight. Swimming: development of all 4 strokes.		Swimming: competitions, starts and finishes, times and distances. *Outdoor activities – UKSA.*
	Matches with other schools take place throughout the year, from Year 3 upwards.		