



St Mary's
Colchester

Year 6

Curriculum Booklet



Introduction

This booklet is a guide to your daughter's current academic year, giving you an overview of the content of our curriculum at St. Mary's. Our curriculum has been devised to interest and engage your daughter, with the intention to help realise her potential. As with all the best teaching, it may be liable to changes as we respond to the questions, interests and particular needs of the girls, but it will give you a broad idea of the year ahead.

If you have any questions please speak with your daughter's class teacher or Mrs Zoe Wentworth, Assistant Director of Lower School (Academic).



Year 6 Yearly Overview for English

(Your daughter will be assessed against the following criteria)

Reading	Writing
<p>Applies a growing knowledge of root words, prefixes and suffixes (morphology and etymology) - as listed in English appendix 1 of the national curriculum document - both to read aloud and to understand the meaning of new words that are met</p> <p>Increases familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions</p> <p>Checks that the book makes sense to the reader, discussing the individual's understanding and exploring the meaning of words in context</p> <p>Summarises the main ideas drawn from more than one paragraph, identifying key details that support the main ideas</p> <p>Retrieves, records and presents information from non-fiction</p> <p>Participates in discussions about books that are read to the individual and those that can be read independently</p> <p>Provides reasoned justifications for their views about a book</p>	<p>Composition</p> <p>Identifies the audience for, and purpose of, the writing</p> <p>Selects the appropriate form and uses other similar writing as models for their own</p> <p>Proof-reads for spelling and punctuation errors</p> <p>Ensures the consistent and correct use of tense throughout a piece of writing</p> <p>Uses further organisational and presentational devices to structure text and to guide the reader (eg headings, bullet points, underlining)</p> <p>Can describe settings, characters and atmosphere</p> <p>SPaG</p> <p>Uses dictionaries to check the spelling and meaning of words</p> <p>Can understand and apply the difference between vocabulary typical of informal speech and vocabulary appropriate for formal speech and writing (eg find out - discover; ask for - request; go in - enter)</p> <p>Uses the passive voice to affect the presentation of information in a sentence (eg 'I broke the window in the greenhouse' versus 'The window in the greenhouse was broken (by me)')</p> <p>Can use layout devices, such as headings, sub-headings, columns, bullets, or tables, to structure text</p> <p>Uses the colon to introduce a list</p> <p>Punctuates bullet points to list information</p>



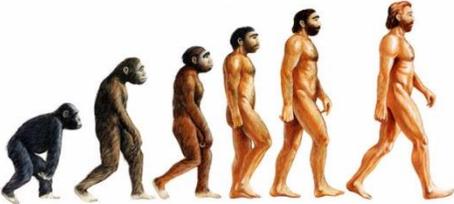
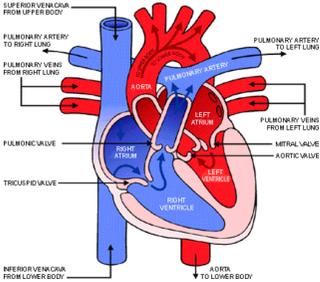
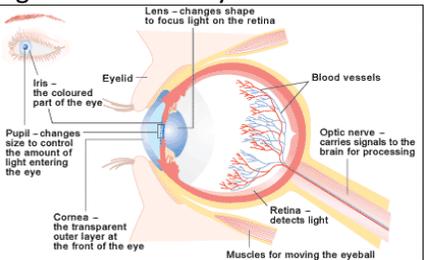
Year 6 Yearly Overview for Mathematics

(Your daughter will be assessed against the following criteria)

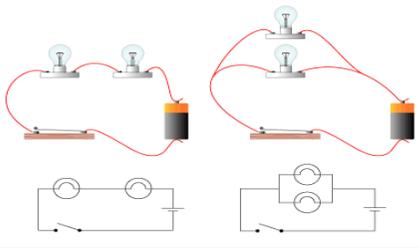
<p>Place value Rounds any whole number to a required degree of accuracy Uses negative numbers in context and calculates intervals across zero</p> <p>Calculation Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication Divides numbers up to four digits by a two digit number using the formal written method of short division where appropriate, interpreting remainders according to the context Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy</p> <p>Fractions Uses written division methods in cases where the answer has up to two decimal places Solves problems which require answers to be rounded to specified degrees of accuracy Recalls and uses equivalences between simple fractions, decimals and percentages, including in different contexts</p> <p>Ratio and proportion Solves problems involving the calculation of percentages eg of measures and calculations such as 15 per cent of 360, and the use of percentages for comparison</p>	<p>Measurement Uses, reads, writes and converts between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places</p> <p>Properties of shape Compares and classifies geometric shapes based on their properties and sizes and finds unknown angles in any triangles, quadrilaterals and regular polygons Position and direction Draws and translates simple shapes on the coordinate plane and reflects them in the axes Interprets pie charts and line graphs and uses these to solve problems</p> <p>Statistics Calculates and interprets the mean as an average</p>



Year 6 - Science

Topic / Area of study	Description	The skills the girls will develop through these topics
<p>Living things and their habitats Evolution and inheritance</p> 	<p>The girls will be introduced to the idea that characteristics are passed from parents to their offspring, for instance by considering different breeds of dogs, and what happens when, for example, Labradors are crossed with Poodles. They will also look at genetics and inheritance in their own families. We will discover how variation in offspring over time can make animals more or less able to survive in particular environments; adaptation to survive in extreme environments will link to our studies in History on the Polar Regions. We will consider how adaptation may lead to evolution. We will also explore how fossils can provide information about living things that inhabited the Earth millions of years ago. Our studies will include finding out about the work of palaeontologists such as Mary Anning and about how Charles Darwin and Alfred Wallace developed their ideas on evolution.</p>	<p>To plan enquiries, including recognising and controlling variables where necessary</p> <p>To use appropriate techniques, apparatus, and materials during fieldwork and laboratory work</p> <p>To take measurements, using a range of scientific equipment, with increasing accuracy and precision</p> <p>To record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models</p>
<p>Animals including Humans</p> 	<p>The girls will share their prior understanding of the human body by locating the major organs on a skeleton. We will explore the functions of the main organs through diagrams, investigations, models and video clips. We will learn to identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. We will also learn to identify and name the main parts of the human respiratory system, and describe the process. The girls will explore lung capacity through practical experiments. Through research, we will learn about the importance of diet, exercise, drugs and lifestyle on the way the human body functions; the girls will create leaflets to teach others what they have found out.</p>	<p>To report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions</p> <p>To present findings in written form, displays and other presentations</p>
<p>Light and Electricity</p> 	<p>The girls will investigate the idea that light travels in straight lines, along with reflected and refracted light, through practical experiments. They will be able to use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them, and to predict the size of shadows when the position of the light source changes – shadow investigations will be carried out in small groups. We will move on to a study of the human eye, using video material and diagrams to support understanding. The girls will learn that we see things because light travels from light sources to our eyes, or from light sources to objects and then to our eyes. We will also explore the fact that white light is made of many colours.</p>	<p>To use test results to make predictions to set up further comparative and fair tests</p> <p>To use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments</p>



	<p>The girls will explore and learn to build electrical circuits. They will be able to associate the brightness of a lamp, or the volume of a buzzer, with the number and voltage of cells used in the circuit. They will 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. The girls will be taught how to recognise and use symbols when representing a simple circuit in a diagram. The topic will culminate with a Design and Technology project where the girls will make their own electrical circuit games.</p>	
<p>Living Things and their Habitats</p> <p>What are Microorganisms?</p> 	<p>Building on their learning about grouping living things in year 4, the girls will look at the classification system in more detail. They will be introduced to the idea that broad groupings, such as micro-organisms, plants and animals can be subdivided. Through direct observations where possible, they will classify animals into commonly found invertebrates (such as insects, spiders, snails, worms) and vertebrates (fish, amphibians, reptiles, birds and mammals) and will discuss reasons why living things are placed in one group and not another. As part of the work on micro-organisms, they will explore Scientific research into Germ Theory, by looking at the work of Louis Pasteur and Edward Jenner and understand the main characteristics of different microbes.</p>	



Year 6 - History

Topic / Area of study	Description	The skills the girls will develop through these topics
<p>The Triangular Trade</p> 	<p>The girls will learn to explain and interpret the historical reasons for the Triangular Trade System, considering the implications of trade routes, distribution of natural resources and types of settlement. They will learn the three main trade routes – outward passage, middle passage and homeward passage – recognizing the countries involved at each stage. Using historical sources, they will consider the emotional needs of slaves on board the slave ships, writing diary entries to outline conditions on board a slave ship and will research the history of Nelson Mandela and the term “apartheid.” They will use this as a starting point for considering the balance of power and in order to understand what is meant by “fair trade.”</p>	<p>To investigate and interpret the past by using sources of evidence to deduce information. To understanding that no single source of evidence gives the full answer to questions about the past</p> <p>To communicate historically by using appropriate historical vocabulary to communicate and by using literacy and computing skills to communicate information about the past</p>
<p>The America’s (The Incan Civilisation)</p> 	<p>The girls will learn about the early tribes in South America and particularly about the Incas and their Empire. We will explore how stories and myths can be used to convey information in the absence of artefacts. The girls will discover how the coming of the Spanish saw changes in architecture and the reasons why the town of Cusco is shaped like a puma, along with its importance in the Inca Empire. We will learn why the Inca road system was so important in the expansion of the Inca Empire, along with the problems of creating a road system through a mountain range. The ideas, beliefs and attitudes of the Incas – including the gods they worshipped, will be explored. We will discover Machu Picchu as a world heritage site and learn about its history.</p>	<p>To understand chronology by describing the main changes in a period of history</p> <p>To share their knowledge and understanding of past events by describing and making links between events, and changes across periods. As they communicate, they will use dates and historical vocabulary to describe the period</p>
<p>Government/Parliament/Laws</p> 	<p>The girls will learn about the story behind the Magna Carta and that there are three clauses of Magna Carta still relevant today. We will reflect on the significance of Magna Carta in the development of rights and freedom in the UK. We will learn about social and political change for women from 1903 to 1979 (social reform and the Suffragettes). We will consider the broader social and political development of votes for women from the early suffrage movement to the first woman taking her seat in Parliament in 1919. We will look at Government, Parliament and Laws today – recognising that there are different forms of government, the importance that rules and laws play, along with the role of Parliament, local MPs and different political parties. Throughout our studies, we will use a range of historical sources – images, animations and videos, articles and web links.</p>	<p>To use historical enquiry skills as they use (and question) a variety of sources to find out about events, people and changes</p>



Year 6 - Geography

Topic / Area of study	Description	The skills the girls will develop through this topic
<p>Global/ Polar Regions – Arctic and Antarctic</p> 	<p>In this unit the girls will learn about the polar regions – the Arctic and Antarctic. We will explore geographic location, climatic and physical features, along with the water cycle and how it is changing over time. Studies will also include exploration of these regions – considering why the explorers were drawn there, which will allow some cross-curricular work in English as we investigate newspaper reports and diary entries. The girls will imagine themselves as polar explorers and plan their own expedition. The focus will extend to animal adaptation (as linked to Science) and the dangers the animals face, as we consider the human impact and climate change. Will we investigate the settlers living in the polar regions, along with the effects of tourism and exploration.</p>	<p>To identify and describe the geographical significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, and time zones (including day and night) To investigate places by using a range of geographical resources to give detailed descriptions and opinions of the characteristic features of a location To identify and describe how the physical features affect the human activity within a location To consider the human geography of the locations, including: settlements, land use, economic activity including trade links, and the distribution of natural resources</p>
<p>South America</p> 	<p>The girls will extend their knowledge and understanding beyond the United Kingdom and Europe, to South America. This will include the location and characteristics of the most significant human and physical features. The girls will develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge. They will develop their mapwork skills in our study of South America, concentrating on environmental regions, key physical and human characteristics, countries, and major cities. The girls will produce projects/presentations on specific countries and events which they will present to their peers.</p>	<p>To name and locate some of the countries and cities of the world and their identifying human and physical characteristics, including hills, mountains, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time To name and locate the countries of North and South America and identify their main physical and human characteristics To create maps of locations identifying patterns (such as: land use, climate zones, population densities, height of land)</p>
<p>Field Study – Isle of Wight</p> 	<p>In the middle of the summer term we pack our cases and head off to the Isle of Wight. The girls will be staying in the town of Sandown. We will take the opportunity to explore the area, looking at tourism and how this relates to land use. We will also look at coastal processes in action.</p>	<p>To be able to identify and describe how the physical features affect the human activity within a location To use a range of geographical resources to give descriptions and opinions of the characteristic features of a location To use different types of fieldwork sampling to observe, measure and record the human and physical features in the local area. To record the results in a range of ways To use the eight points of a compass, four-figure grid references, symbols and a key (that uses standard Ordnance Survey symbols)</p>



Year 6 – Additional Subjects

RE
Topics to be covered: Christianity – The Last Week of Jesus Life Humanism – Living as a Humanist Buddhism – Living as a Buddhist
PSHEE/Philosophy
Topics to be covered: It's Our World! – The wider community and local democracy/Rights and Responsibilities/Environmental Awareness and Sustainability Say No! – Drugs Education/Feeling Safe/Anti-bullying Money Matters – Understanding finance and money/Shopping and budgeting/Risk and debt/Goal setting and motivation Who Likes Chocolates? – Fairtrade/Globalisation inequalities/Hunger and Poverty/Media and stereotyping People Around Us – Global citizenship/Different identities around the world/Challenging prejudice/Support networks Growing Up! – Differences growing up/Managing change
Computer Science
To give examples of the risks inherent in online communities and demonstrate how to minimise risk and report problems To understand the effect of online comments and show responsibility and sensitivity online To understand it is illegal to download copyrighted material without permission of copyright holder To choose the most suitable applications and devices for the purposes of communication Coding Code: Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation Choose the most suitable applications and devices for the purposes of communication Operators: Use reporter operators Control: Use IF THEN conditions to control events or objects Variables and lists: Use variables to store a value. Use functions define, set, change show and hide to control variables Events: Set events to control other events by 'Broadcasting' information as a trigger
Languages
During classes in Spanish, the emphasis will be on encouraging the girls to engage in the language through role-play, speaking and listening. Oral discussions will focus on greetings, numbers, family members, birthdays, ordering food in a café, parts of the body, weather and telling the time. We will also learn about where Spanish is spoken in the world and some of the customs which are prevalent in those countries.



The main focus within French will be speaking and listening, which will be applied in a range of conversational and role-play situations. Other strands which will enrich this are reading and writing. The girls will also develop an awareness of the cultural aspects within French speaking provinces. Topics which will be studied include physical descriptions, French Alphabet, School descriptions and places, restaurants and food.

Design and Technology

The girls will use fabric dyes to create quilted/embroidered pictures (using a range of stitches and decorations) which they will frame. Their creativity will be encouraged in their selection of colour and design. They will also put their culinary skills to good use as they design and create their own pasta dish creating a variety of sauces! Our work in DT will culminate with a link to our Science topic on Electricity where the girls will create their own circuit games.

Art and Design

The girls will be encouraged to produce creative work, exploring their own ideas. Their work will cover drawing, painting, textiles and sculpture. The girls will explore people in action using a range of sketching materials – including charcoal and graphite pencils. They will also explore textiles, including weaving and tie-dye. At all stages, the girls will be taught to develop their techniques, including their control. They will learn about great artists, architects and designers.

Music

The girls will continue to develop performance skills and build on their musical knowledge
To sing and/or play with confidence and with expression
To understand the use of the sharp and the flat symbols
To develop their understanding of musical notation and a widening vocabulary in order to appraise music
To develop their composition skills

PE

Uphold the spirit of fair play and respect in all competitive situations
Play competitive games, modified where appropriate
To develop gross and fine motor skills in the relevant activity
To use and apply these skills with growing accuracy and consistency within competitive situations
To demonstrate a good kinaesthetic awareness, holding shapes and moving with fluency and expression
Swim fluently with controlled strokes
Sports to include netball, hockey, athletics and rounders

Forest School



Your daughter will have opportunities to develop her skills and knowledge in the following areas: Tool use, Ropes and Knots, Fires, Dens and Shelters, Tree climbing and Flora and Fauna. Personal, Social and Emotional Development is a constant feature throughout all of the sessions as the girls experience supported risk taking, physical challenges, working as part of a group, problem solving, choice, opportunities for reflection, solitude and discussion of feelings and emotions to promote self-awareness, social awareness and positive mental health.

Use a knife to whittle green wood

Select tools suitable for a task

Select wood suitable for a task

Choose an appropriate knot to tie up a hammock

Use knowledge of knots to put up a zip-wire

Choose and use appropriate knots for the task (den-building, rope swing, rope walk)

Light a fire independently in different ways

Keep the fire alight and fed with fuel

Plan, prepare and cook a meal on an open fire

Adapt and improve shelter building techniques

Use knots learnt to tie parts of shelter

Attempt to build a shelter off the ground

Challenge themselves with more difficult climbing challenges

Talk about the checks and risk assessments they have carried out before starting a task.

Identify hawthorn, elder, oak, lime, hazel, willow, holly and ivy

Identify Lords and Ladies

Notice how different types of flora provide habitats for different animals and birds

Carry out a Bio-Blitz of FS area (list of living things)

Have opportunities to talk about how they are feeling

Experience different relaxation and mindfulness techniques

Recognise and celebrate their successes

Work together as part of a group

Take time to enjoy solitude and the natural environment

Undertake opportunities to improve or look after the Forest School area