



St Mary's
Colchester

Year 5

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 5 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 child 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>Describes settings, characters and atmosphere</p> <p>SPaG</p> <p>Converts nouns or adjectives into verbs using suffixes (eg -ate; -ise; -ify)</p> <p>Indicates degrees of possibility using adverbs (eg perhaps, surely) or modal verbs (eg might, should, will, must)</p> <p>Uses devices to build cohesion within a paragraph (eg then, after that, this, firstly)</p> <p>Uses commas to clarify meaning or avoid ambiguity</p>



Year 5 Yearly Overview for Mathematics

(Your daughter will be assessed against the following criteria)

<p>Number and place value Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero</p> <p>Addition and subtraction Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction) Numbers mentally with increasingly large numbers (eg $12,462 - 2,300 = 10,162$)</p> <p>Multiplication and division Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes Solves problems involving multiplication and division, including scaling by simple fractions and problems</p> <p>Fractions (including decimals) Compares and orders fractions whose denominators are all multiples of the same number Reads and writes decimal numbers as fractions eg $0.71 = 71/100$ Reads, writes, orders and compares numbers with up to three decimal places</p>	<p>Measurement Converts between different units of metric measure (eg kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²)</p> <p>Geometry: Properties of shape Draws given angles and measures them in degrees (°) Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles Geometry: position and direction</p> <p>Statistics Completes, reads and interprets information in tables, including timetables</p>



Year 5 - Science

Topic / Area of study	Description	The skills the girls will develop through this topic
<p>Properties and changes of materials</p> 	<p>The girls will learn about different materials, their uses and their properties, as well as dissolving, separating mixtures and irreversible changes. They will sort and classify objects according to their properties. They will explore the properties of materials to find the most suitable material for different purposes. The girls will work scientifically and collaboratively to investigate the best thermal insulator, making predictions and forming conclusions.</p>	<p>Plan enquiries, including recognising and controlling variables where necessary.</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision.</p> <p>Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions.</p>
<p>All living things and their habitats & Animals including humans</p> 	<p>The girls will learn about the process of reproduction and the life cycles of plants and animals and will investigate how these differ between branches of the animal kingdom.</p> <p>They will investigate the development of babies and compare the gestation period of humans and other animals. They will learn about the changes experienced during puberty and why these occur.</p>	<p>Relate knowledge of plants to studies of all living things.</p> <p>Describe the life cycles common to a variety of animals, including humans and a variety of plants.</p> <p>Compare and group together everyday materials based on evidence from comparative and fair tests.</p> <p>Use the idea of the Earth's rotation to explain day and night.</p>
<p>Forces & Earth and space</p> 	<p>The girls will identify forces and demonstrate these on diagrams. The girls will look for patterns and links between the mass and weight of objects, using Newton metres to measure the force of gravity. They investigate air and water resistance, designing parachutes and boats.</p> <p>They will learn about the different planets in our solar system and research how the Earth, Moon and Sun move in relation to each other. The girls will study the causes of day and night, explaining that it is not the sun that moves but the Earth.</p>	



Year 5 - History

Topic / Area of study	Description	The skills the girls will develop through these topics
<p>Work and Leisure</p> 	<p>The twentieth century was one of the most exciting and fast-moving centuries of all time with countless technological, social and political developments. We will be taking a decade-by-decade look at the changes in Britain over this period, focusing on areas such as home life, work life, population, popular culture and technology. The girls will look at a variety of changes that were occurring during the seventies, such as the women's liberation movement and key inventions, before focusing on the country's economic difficulties. We will find out why the three-day working week was imposed, why there were so many strikes over pay and how all this culminated in the 'winter of discontent'. We will also consider some of the more positive events and changes of this decade. We will then be taken back to 'Thatcher's Britain' as we find out what life was like under Britain's first female Prime Minister. We will find out about Thatcher's rise to power and some of the key features of her time as Prime Minister before looking at some of the other events and inventions of the decade, including Game Boys and mobile phones. Finally, we will study the main changes, inventions and events of the 1990s, including the death of Princess Diana and the invention of the world wide web. The girls will be challenged to look for links between the changes that have occurred since 1948 over a variety of categories, giving suggestions for what they think are the most significant events, inventions or achievements.</p>	<p>Describe the main changes in a period of history.</p> <p>Describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children.</p> <p>Use sources of evidence to deduce information about the past.</p> <p>Seek out and analyse a wide range of evidence in order to justify claims about the past.</p> <p>Understand that no single source of evidence gives the full answer to questions about the past.</p> <p>Show an awareness of the concept of propaganda and how historians must understand the social context of evidence studied.</p>
<p>Ancient Greece</p> 	<p>Ancient Greece is acknowledged to be one of the world's greatest civilisations and this topic will investigate how it helped to shape many aspects of western society today. The girls will learn who the Ancient Greek people were, when they lived and where and how they were able to establish their empire. They will learn how their geographical location proved an ideal spot from which to be sheltered from threat, yet to branch out and extend their empire. They will discover how the polytheistic nature of Ancient Greek theology had a major impact upon the way people lived their lives and left a rich heritage of myths, art and architecture. This topic will harness the girls' deductive skills as we study and consider a range of artefacts. Our visit to the excellent collections held at Cambridge will help to enrich our studies.</p>	



Vikings



During this unit of work, we will learn about the raids and invasions by Vikings in Anglo-Saxon Britain. The girls will learn who the Vikings were as well as when and where they raided and settled. They will learn about significant events from the period and order these chronologically on a timeline. We will also find out about the Anglo-Saxon kings who ruled during the 'Viking Age' and examine their influence and significance in British history. In addition to this, we will learn about the Anglo-Saxon justice system and compare and contrast crimes, punishments and laws with their modern day equivalents. We will also have the opportunity to learn about different aspects of everyday Viking life by exploring the types of houses that the Vikings lived in, what clothes they wore and even what types of food they ate.



Year 5 - Geography

Topic / Area of study	Description	The skills the girls will develop through this topic
<p>Japan</p> 	<p>We will travel to the Far East, to the collection of islands that together form Japan. From its bustling cities, filled with examples of advanced technology, to remote rural settlements where the population is aging rapidly, we will focus on this fascinating location and its people. Japan will provide the perfect location to explore the extremes of the Earth's natural powers. The girls will learn how earthquakes are triggered and how people have modified their lifestyles and buildings to minimise their impact. We will discover why Japan is surrounded by seas with such plentiful supplies of fish and how this forms a major source of food. We will also meet some of the fascinating native wildlife and learn of the conflict between the needs of people and Japan's flora and fauna.</p>	<p>Collect and analyse statistics and other information in order to draw conclusions about locations.</p> <p>Identify and describe how the physical features affect the human activity within a location.</p> <p>Name and locate the countries of North America and identify their main physical and human characteristics.</p> <p>Understand some of the reasons for geographical similarities and differences between countries.</p>
<p>North America</p> 	<p>In the true spirit of North America, this topic will see us embark on an epic road trip, travelling from the mountainous landscape of Mexico, through the varied states that form the USA and onwards into the chill of Canada and the Northerly state of Alaska. This unit will provide the ideal opportunity to study the aspects of North America that are less visible in popular culture. We will look at the contrast between the landscapes and lives of the people who live in them. We will use a range of data to form an idea of the climate and discover how this affects the flora and fauna of a location. Ethical issues will present themselves as we consider the rights of Canada's first people over their ancestral lands.</p>	<p>Create maps of locations and patterns.</p> <p>Identify and describe the geographical significance of latitude, longitude, Equator, Northern Hemisphere, the Tropics of Cancer and Capricorn and time zones.</p> <p>To use a range of geographical resources to give descriptions and opinions of the characteristic features of a location</p> <p>To use different types of fieldwork sampling to observe, measure and record the human and physical features in the local area.</p>
<p>Isle of Wight – Field Study</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 use the eight points of a compass, four-figure grid references, symbols and a key (that uses standard Ordnance Survey symbols)</p>



Year 5 – Additional Subjects

RE

Topics to be covered:

Christianity – The Bible

Islam – Five Pillars of Faith, Holy Places in Islam

Sikhism – The First and Last Human Gurus, The Khalsa and the Five Ks

PSHEE/Philosophy

Topics to be covered:

We're all stars! – Community/Rights and Responsibilities/Getting to know each other/Working Together

Be Friendly, Be Wise – Friendships/Conflict resolution/Anti-bullying/Keeping Safe

Living Long, Living Strong – Growing and caring for ourselves/Healthy eating and exercise/Goal Setting

Daring to be Different – Self-esteem/Difference and diversity/Peer influence and assertiveness

Dear Diary – Feelings/Relationships/Anti-bullying

Joining in and joining Up! – Responsibilities/Participation/Local democracy/Fundraising

Computer Science

To give examples of the risks 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 understand how simple networks are set up and used

To choose the most suitable applications and devices for the purposes of communication

Coding

Motion: Set If conditions for movements, specify rotation giving degrees

Control: Use IF ELSE conditions to control events or objects

Variables, lists and operators: Use Boolean operators, use comparison operators, use lists to create variables

Sensing: Use a range of sensing tools to control events or actions

To use many of the advanced features in order to create, high quality, professional or efficient communications

Languages

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 school subjects, likes and dislikes, French alphabet, places and direction, ordering food.



Design and Technology

In the first unit we will explore mechanisms, discovering how modifications to a cam mechanism can alter the movement of a follower. The girls will decide which movement they wish to employ and create a cam toy. In textiles, we will look at how to research and plan a project; develop the practical skills we need; and modify designs as we progress. Our food strand will centre on bread and the way in which we can manipulate a basic dough recipe. We will learn more about the processes involved and how dough behaves before it is baked. The girls will then plan and create their own bread product.

Art and Design

Across the year the girls will work to develop their creativity, exploring skills, experiencing different mediums and considering inspiring art from a range of famous artists. The girls will draw with graphite and charcoal, learning the benefits of each and which they prefer. We will look at how to achieve a sense of texture and form, looking for light and dark tones. In painting we will look at landscapes and the way artists create a sense of mood through the colour palette they select. The girls will create different stitches in textiles and how to cut with precision, making a piece of applique work. In collage we will experiment with different techniques, improving our precision and selecting materials with care.

Music

The girls will continue to develop performance skills and build on their musical knowledge and develop their composition skills
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

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