

Upper Third Curriculum and Reading Recommendations

Art

Michaelmas Term:

During this first term, you will be investigating many different types of linear and tonal drawing and exploring a painting project called **“Fabulous Food.”** You will be learning all about colour theory, experimenting with tints, hues and bulls-eyes and developing how best to use coloured pencils. You will be using digital SLR cameras to take photographs, which you will use as the basis for your final outcome for the project, a large-scale acrylic painting. You will be researching a diverse range of artists, including Juan Sanchez Cotan, Karen O’Neil, Vik Muniz, Wayne Thiebaud, Joel Penkman, Kate Brinkworth, Prudence Staite and Euan Uglow and responding to their pieces, relating their work to your own.

Lent Term:

This project is inspired initially by the work of Grayson Perry, transvestite and ceramicist, who has lively and exciting ideas about art and what it might be. Your project is called **“British Values,”** exploring issues around what it means to us to be British, examining equality and diversity and why these are so important, as well as democracy, liberty, freedom of speech, the welfare state and the NHS. Your project will also involve further experimentation with drawing, including making ipad drawings using the app “Brushes Redux,” typography, printmaking and mixed-media studies. You will also study and respond to the work of a wide selection of British artists, including Chris Ofili, Bridget Riley, Rachel Whiteread, David Hockney, Gwen John, Cornelia Parker and Hurvind Anderson.

Computer Science

The computer science curriculum in Upper Third cover two main areas. The girls are introduced to key computational concepts such as algorithms and given a introduction to programming. Secondly, the girls learn the skills necessary to use ICT effectively in support of their other subjects. Clearly, these develop throughout their school careers and the acquisition of ICT skills is of course a life-long process. The aim of the Computing department is to provide pupils with the necessary ICT and computational skills to flourish in the digital world.

In Upper Third the girls are given an overall introduction to the major applications and basic theory behind computer use. In particular, they will learn how to use Microsoft Teams so as they can use this application in all subjects. This is designed to provide the necessary foundation for the use of ICT in other subjects. In addition, they are introduced to programming using Python.

Girls work through the following units in Upper Third:

Unit 1: Introduction to basic computing/IT concepts

- Using Micosoft Applications such as MS Teams
- Introduction to hardware found in ICT suites
- Introduction to features of Windows 10 Operating System

Unit 2: Python programming

- Using python to teach basic programming concepts such as iteration and selection

Unit 3 : Key Computational Concepts

- Key Computational Concepts such as algorithms, flowcharts, decomposition and binary numbers will be explored

Unit 4: E-safety

- Pupils are taught how to staff safe online and identify and resolve issues relating to e-safety
- Whilst this is a discrete unit e-safety is a theme that runs across all units in computer science

Unit 5: Spreadsheets

- Pupil are introduced to spreadsheets and learn how to model real world problems, such as creating a budget, using a spreadsheet.

Unit 6: Programming Using Turtle

- Pupils use the Turtle model in Python to create images and consolidate skills they learnt in Unit 2

Unit 7: Programming The BBC Microbit

- Pupils program the BBC microbit using a graphical programming language. They will link skills learnt in this language to those learnt in Unit 2 and 6

Recommended summer reading:

Computational Fairy Tales by Jeremy Kubica

Design Technology

In upper third, students study Design technology and develop their creative, analytical and practical skills. The subject plays an excellent role as a cross-curricular link that draws on knowledge and experiences from several different disciplines, covering both STEM and artistic aspects. Over their first year, Upper Third students complete a range of short projects, typically lasting between six and eight weeks, giving them an experience of different mediums, material types and making processes.

Unit 1: Structures

As an induction project, the students compete in small groups, making weight bearing structures. As a part of this, they learn about forces, triangulation and how to calculate strength to weight ratios.

Unit 2: Workshop induction – Speedy cars

In order to learn safe workshop practices, the pupils will complete a simple workshop making project, to create a small wooden car. The project utilises a broad range of processes and techniques, including the classes' first experience of laser cutting and designing using a Computer-Aided-Design program.

Unit 3: Introduction to CAD/CAM - Flapping toy

Building on the experience of the previous project, the class will develop their skills in using 2D Computer-Aided-Design programs to create a flapping character with moving limbs. Once completed, their designs are then Laser cut and Dye-sublimation printed to create the end products. The students also learn about basic mechanisms, such as levers, in this unit.

Unit 4: Iterative designing – Designing for Asthma sufferers

In their first introduction to portfolio work, as a part of an iterative process, the class complete a design challenge, set by the NHS. The unit focusses on managing creative processes, analysing stakeholder needs and designing a user experience.

Unit 5: Introduction to electronics – Electronic game

This unit focusses on the basics of designing using electronics using and/or gates. Alongside the theoretical learning, the pupils will learn about different electronic components and techniques for soldering a circuit.

English

In your English lessons, you will follow a rich and varied curriculum that aims to instil and develop an enduring love of language and literature. You will study reading, writing and spoken language through a range of themed schemes of learning. You will also enjoy dedicated lessons in the SCHS library, to nurture your interest in reading and spend time refining key literary skills with your teachers. Fundamental to the delivery of English at Key Stage 3 is our belief that you should be exposed to a wide range of challenging texts that thoroughly prepare you to access the demands of the GCSE programme of study in Key Stage 4, but also be able to respond to texts creatively and collaboratively.

In your first term at SCHS, you will study an anthology of poetry, which focuses on relationships. The anthology features influential women such as Christina Rossetti and Emily Brontë, and through your study of these writers, you will be introduced to a range of linguistic and structural techniques. You will also learn how to respond to literature in a critical manner, forming your own opinion about texts and supporting your ideas with skillful use of evidence.

After the October break, you will study *A Christmas Carol* by Charles Dickens, which really helps students to get into the festive spirit in the weeks leading up to Christmas. Prior to reading the novel, you will independently conduct research about the life and times of Charles Dickens, which will enable you to place the text in its cultural context. As you read the novel, your class will explore a number of different themes and ideas presented by Dickens, and your teacher will help you to develop your analytical skills.

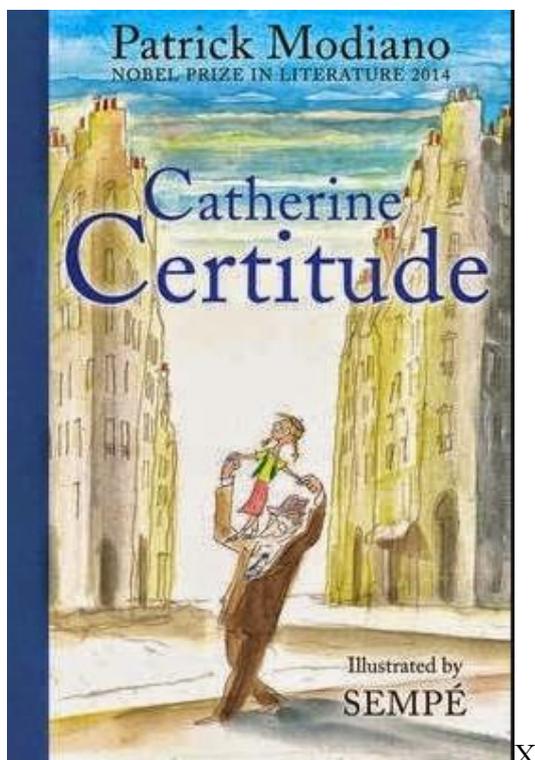
French

In the first year at SCHC, pupils also learn French. The French language is taught from scratch and no prior knowledge is required, as pupils are brought up to speed quite rapidly through a range of interactive and past-paced teaching techniques. In the first year of learning French, pupils are introduced the unique pronunciation style and written accents and move on to grasp a lot of vocabulary, useful expressions and important verbs relating to everyday conversation. After starting with greetings, months, numbers, pupils quickly step up the pace and by the middle of their first year, they are able to hold interactive and fact-finding conversations, describe their family, use opinions and linking words to sustain but written and oral conversations.

Topics explored are set to the backdrop of France and francophone countries and include: passions and hobbies, school subjects, daily routine and school issues. By the end of the year, pupils are confident communicators and able to manipulate language across the 4 disciplines of listening, reading, writing and most importantly, speaking. They begin the Lower Fourth with a sound core foundation in the following topics: school life, family, weather, activities and sports, technology habits, countries, animals, physical descriptions, house and home, food and drink, town and countryside. The first year curriculum in French is vibrant and interactive, with lots of role-play, competitive activity, theatre and pupils can learn independently on technical devices.

A wonderful novel to read to give insight into childhood in France and typical French cultural pursuits is:

Recommended summer reading: *Catherine Certitude*, by Patrick Modiano. ISBN 087923959



Geography

Our geography Upper Third curriculum is designed to introduce the pupils to a wide range of topics that help them understand the scope of this discipline, and develop the skills to be able to “think like a geographer”.

Teaching and learning is thematic; in our first topic “Awe and Wonder”, we will investigate the wonderful world that surrounds us. Pupils will look at the place of humans on Earth; one of many species that have existed, at the same time considering conditions during contrasting geological eras. They will understand that the Earth, itself, is a dynamic planet. They will think about Carl Sagan’s quote about “The Little Blue Dot” - the only planet that can support life.

They will then look at the concept of environmental stewardship. Pupils will consider how the Galapagos Islands are both a biological hotspot, but also a major tourist attraction. Pupils will consider whether tourism should be allowed to continue or be restricted in this ecologically sensitive area. We also look at the ancient wonders of the world, and will go on to consider natural and built environments that should be considered, if we were to create our own list. They will be able to produce their own visitors leaflet to give information about a site that they have chosen.

The second topic that the pupils study, in the Lent term, is concerned with geographical skills that they will need to master to help them in the rest of their time at SCHS. Pupils will learn about OS maps, and other types of map, map projections, longitude and latitude, GIS and at the same time learn about the geography of the United Kingdom.

In the latter part of the spring and Summer Term students will be looking at some classic physical geography; they will be looking at “The World of Ice”. In this topic they will understand how ice has helped shape the land. They will look at glaciers; how these environments provide challenges, but also wonderful opportunities. We will also consider how these beautiful landscapes are changing because of climate change.

As we run up to the end of term, the pupils will be looking at Africa. In this unit they will be looking at the diversity in this huge continent, and have opportunity to choose a country to study in detail, looking at physical and environmental geography, historical and cultural aspects. The pupils enjoy producing materials in small groups, and will be working on guided project work.

Recommended summer reading: That will introduce pupils to OS maps is: ***The Ordnance Survey Puzzle Book***

This book has excerpts from a wide range of different types of OS maps, an accompanying quiz and some information about each site. A perfect introduction to map skills, and also very good read for staycations!

The ISBN for this book is: 978-1409184676

If you already own a copy, The Royal Geographical Society also produce a similar puzzle book.

The Royal Geographic Society Puzzle Book; Pit your wits against the world’s greatest explorers

The ISBN for this book is: 978-1788702966

History

History is the exploration and questioning of the past and during U3 you will explore a vast range of different types of History. We shall start with the Norman conquest of England in 1066 and will examine the huge changes that took place following the Norman invasion that shaped England for centuries – and still influence us today! We will then delve into the dramatic history of the Angevin dynasty that ruled England as part of their Empire in the 12th and 13th centuries. During the year we will also study the rich medieval kingdoms of Western Africa, particularly that of the Mali Empire, as well as studying the development of castles over time.

We will not only discover key events that have happened in the past, but we will also seek to become historians ourselves by developing the thinking that historians use to explore the past. We will examine the documents, objects and images that have survived from the past and will use these to root our ideas about the events that we study. In addition, we will learn how to identify key patterns in history and how events are connected. Finally, we will also learn how and why the past is seen differently by historians, and will start to hone our own skills in communicating history to others.

Recommended summer reading: *The Silk Roads (Illustrated Edition)* by Peter Frankopan

Latin

Whether you have studied any Latin before or not, we are very excited to welcome you to the world of Classics. Together we shall transport ourselves to Pompeii, circa 79 AD. We shall see what life was like for the inhabitants of this bustling town, focusing on a real-life citizen Lucius Caecilius Iucundus and his family. We shall also meet the Latin language. Much like Pompeian society, you will see that Latin is far more familiar than it may first appear; a greater understanding will extend your English vocabulary, as well as improving your ability to pick up other modern languages.

As part of our exploration of Pompeian culture we shall explore such topics as: Roman theatre; slavery and manumission; Roman bathing culture; beliefs about life and death; religion; education, and much more. The textbook culminates with the eruption of Mount Vesuvius: what will it mean for Caecilius and his family?

Recommended summer reading: *The Thieves of Ostia*, Caroline Lawrence

Mathematics

Mathematics is not only a beautiful and exciting subject in its own right but also one that underpins many branches of learning. The skills and logical thinking processes developed in Mathematics are essential for life. In Upper Third, along with consolidating work that you would have done in your primary schools, you will of course learn new topics to further develop your mathematical knowledge and skills. Regardless of your perceived ability, we encourage you to think outside the box and take risks in applying your knowledge and skills to unfamiliar situations. The most powerful learning experiences often results from making mistakes.

You are taught in sets and will work with peers of similar ability. Irrespective of which group you are in, expect to be stretched with extension work, but when needed, support is given to help you gain confidence. We also anticipate that you will gradually develop a more independent way of working as the year progresses. With all the topics you will be studying, you will be developing 'mathematical process' skills, which include problem solving, reasoning and communication. The topics you will learn in the Michaelmas Term are:

Arithmetic – solving problems both by pen & paper and using the scientific calculator efficiently

Decimals – comparing decimals, using the four rules of addition, subtraction, multiplication and division

BIDMAS – use brackets and the hierarchy of operations, further practice in the efficient use of the scientific calculator

Fractions – simplifying, add and subtract fractions/mixed numbers, finding fractions of amounts

Rules of algebra – simplifying algebraic expressions, using letters to represent numbers, substituting numbers for letters

Negative numbers – comparing negative numbers, use the four rules of addition, subtraction, multiplication and division

Sequences – find and use the (algebraic) rule of a sequence and solve problems involving sequences

Perimeter and Area – find perimeter and area of rectangles and triangles, find the perimeter and area of compound shapes made from rectangles and triangles

Averages and Range – understand the concept of averages, find the mean, mode, median and range of a data set, compare two data sets, understand the concept of a measure of spread (range)

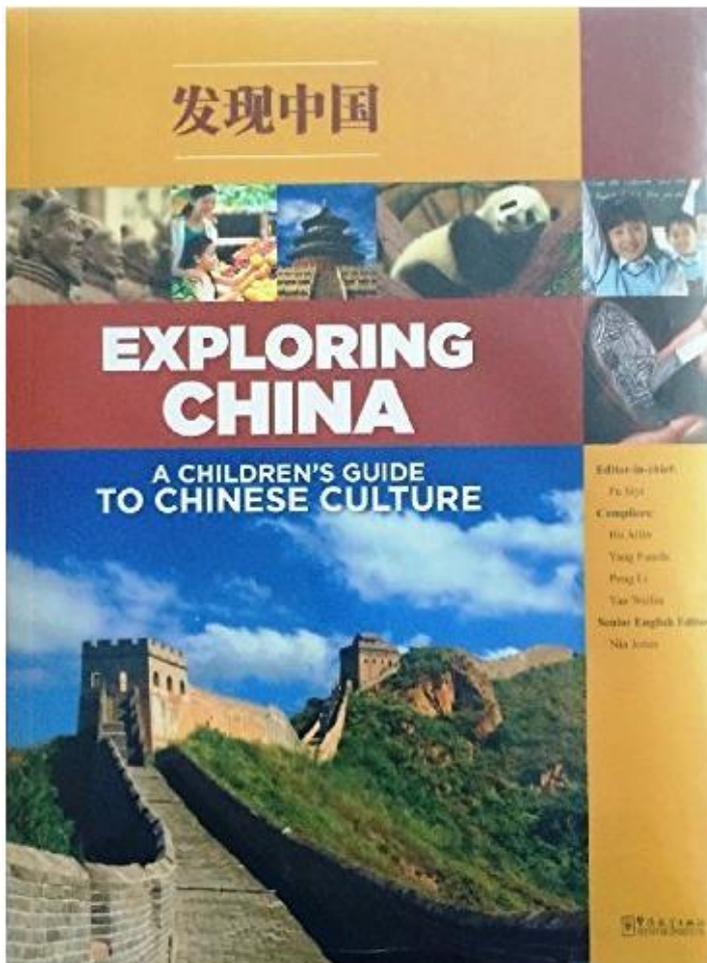
Recommended summer reading: *How Long Is a Piece of String?* by Robert Eastaway and Jeremy Wyndham.

Mandarin

In the first year at SCHS, pupils learn the language Mandarin and about Chinese culture. The Year 7 Mandarin curriculum design includes an introduction to the Chinese language, people and culture. Aspects of Chinese literacy, the foundation of Chinese language, including pinyin/tone/pronunciation and calligraphy are explored. Pupils will learn to become confident speakers in Mandarin Chinese language through building dialogic communication, talking about self and family, giving opinions and discussing hobbies.

As the year progresses, pupils learn how to count to 99 and learn how to use dates, numbers, tell the time and describe school life. Pupils will learn about the Chinese school system and will be introduced to other aspects of Chinese society, such as restaurant traditions and regional food, whilst developing more skills in Chinese characters. The first year curriculum in Mandarin is lively and engaging and some of the most exciting activities include choosing a Chinese name for yourself, learning Calligraphy with a Chinese writing brush, creating a video and learning to sing in Chinese.

Recommended summer reading: *Exploring China: A Children's Guide to Chinese Culture*
ISBN: 9787513806398



Music

In U3 music, we start by looking at the basic elements of music – what makes music different? We are wanting you to open your ears to how music is put together. How many instruments are playing? Is it loud or quiet? Is it in a major or minor key? How can you tell? Maybe you could have a go at listening to one of your favourite songs/pieces of music and ask yourself these questions? Once we have got to grips with the elements, we then learn how to write a melody in a major key on manuscript paper and then with software on computers.

In the Lent Term we move onto World Music topics and explore the different sounds of Indonesia and India. We play music together in groups and perform to the class. In the Summer Term we delve deeper into tonality, looking at majors and minors. We listen to music from a variety of genres including opera, jazz and pop. We finish the year with a composition project using GarageBand software. This is a really fun topic and is open to the whole of KS3. This term the choices include an advert, a soundtrack for an art gallery or a poem recital.

Recommended summer reading: *When Marian Sang: The True Recital of Marian Anderson* by Pam Munoz Ryan – this book tells the story of a very famous black opera singer and how she built her career, ultimately singing in the Carnegie Hall in New York in front of crowds of 75,000 people, whilst living in segregated America, overcoming many obstacles that were put in her way.

PE

We offer a good range of sports and in curriculum lessons pupils are taught Netball, Hockey, Athletics, Cross – country, Cricket and Fitness. In the Autumn and Lent term, girls are taught Hockey, netball, cross – country and Sports Hall Athletics with Fitness. In the Summer term, girls are taught Outdoor Athletics and Cricket with Fitness. Pupils will build on and embed the physical development and any skills learned in key stages 1 and 2, becoming more confident and expert in their techniques, and apply them across different sport and physical activities. Pupils will develop the confidence and interest to get involved in exercise, sport and activities in the extra – curricular clubs and in lessons while understanding the long-term health benefits of physical activity.

In Netball, Hockey and Cricket pupils will be taught how to use a range of tactics and strategies to overcome opponents in direct competition through team and individual games in lessons. In Netball pupils will learn the five key principles as underpinned by England Netball. Pupils will work on the core skills of catch, throw and pass. They will understand the rules and positions on court by Lent term and play competitive matches in lessons and at club throughout the year.

In Hockey pupils will work through core skills of passing, dribbling, stick control and lifted skills as well as tactical understanding in match play. Pupils will be exposed to a number of different positions and the tactical demands of them as well awareness of penalty corners and set plays. All pupils will gain appreciation for the rules of 7 a-side hockey and will have regular competition, playing both internal and external fixtures. The emphasis in U3 is on developing ball control to allow girls to experience making decisions in differing match scenarios.

In Cricket, pupils will go through a range of batting and fielding techniques. They will learn the rules and play Kwik cricket.

In Athletics, pupils will be exposed to all the indoor events and outdoor track and field. All pupils will have the opportunity to participate in Sports Day at Tooting Track and some will compete at London Schools.

In U3 pupils will also be tested physically, developing components of fitness such as cardiovascular endurance, speed, agility and are encouraged to develop these to aid transfer across all sports. Pupils will frequently work in groups, gaining leadership and communicative skills as well as being exposed to regular challenging situations to increase their resilience and to be fearless in their learning.

Recommended summer reading:

Women In Sport – 50 Fearless Athletes Who Played to Win. Written and illustrated by Rachel Ignatofsky (Wren and Rook)

Or

Strong Is The New Pretty – A Celebration of Girls Being Themselves by Kate T.Parker (Workman)

PRE

In Philosophy, Religion & Ethics (PRE) you will spend your first two years learning about six of the great world religions – we call them 'The Big Six'! You will focus on three of the Big Six in your first year at the Senior School. In the Michaelmas term we will learn about Hinduism – the oldest of the Big 6! Hinduism began in India and features a wide range of gods and goddesses, the largest pilgrimage in the world and a rich variety of rituals featuring intricate statues, bright colours, chiming bells and fragrant incense!

In Lent term we learn about Buddhism, which also began life in India! Buddhists follow the teaching and example of Siddhartha Gautama, a young prince who escaped the luxury of his palace and learned that not everyone in the world has an easy life. He takes a deep spiritual journey, encountering all sorts of people, and eventually reaches 'enlightenment' under a tree.

Summer term brings a study of Sikhism which has its origins in...yes, you guessed it - India! In contrast to Hinduism, Sikhism is the youngest or 'newest' of the Big 6, and its founder was a man named Nanak who was a great teacher, or as his followers came to know him a 'guru'. We will observe how Nanak tried to bring diverse groups of people together to worship one god, and we will see how this message was passed on through other gurus throughout history.

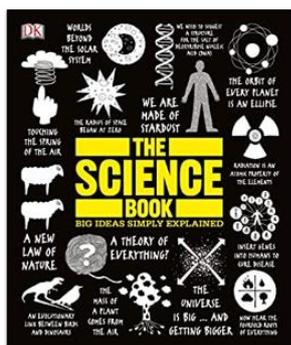
Recommended summer reading: To prepare you for Hinduism when you arrive, you should ask your library if they can order these books: *Seasons of Splendour* by Madhur Jaffrey or *Hinduism for Kids: Beliefs and Practices* by Shalu Sharma.

Science

The Science curriculum is delivered by one or two teachers in specialist science laboratories. The pupils study topics and develop their skills through practical work. All pupils are provided with a textbook which follows the Collins Scheme of Work. There is also an online book and many interactive activities available to pupils through Collins Connect Online.

- Safety in the Laboratory
- Elements and the Periodic Table
- Cells and Reproduction
- Forces and Motion
- Mixing, Dissolving and Separating
- Eating, Drinking and Breathing
- Energy Transfers and Sound

Girls who are particularly interested in Science have the option to take part in Science Society in which they participate in fun science activities and CREST awards in KINZA which involves the pupils exploring a science topic in extensive detail through project and practical work. They also have many opportunities to enter competitions which are promoted by the department throughout the year.



Recommended summer reading:

The Science Book: Big Ideas Simply Explained. The book explores scientific ideas which underpin our modern society such as smart phones, gene therapy and space rockets. Fascinating stories are presented behind many important concepts in the world of mathematics, science and engineering.

