



# **KS3 Curriculum Handbook**

**September 2022**

## INTRODUCTION

For the first three years at Godolphin, our aim is to provide a broad curriculum which excites and inspires the girls. It offers them the chance to develop and build on existing skills in familiar subjects as well as the opportunity to experience some subjects for the first time.

We aim to foster intellectual curiosity amongst the girls as well as developing their resilience, motivation and independent learning skills so that they end their Third Year eager to tackle the fresh challenges provided by the stimulating range of courses on offer at GCSE.

Girls in the Third Year will be guided and supported through the all-important process of decision making, prior to choosing the subjects they wish to continue into the Fourth Year.

We are confident that we provide a broad based and stimulating curriculum for girls in the First, Second and Third Years and one which offers plenty of scope for them to develop their individual strengths and talents.

Dr Chris Hillman  
Academic Deputy

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## ART & DESIGN

During the First, Second and Third Years, girls will gain experience in up to four areas of the Art Department: Painting & Drawing, Textiles Design, Three-dimensional Design and History of Art. The First Year spend one-third, and the Second and Third Years spend one-quarter of the year working within each discipline and will, over their first three years of study, develop the skills and concepts that will lead on to GCSE.

**Painting & Drawing:** In the Lower School, the emphasis is on drawing and painting from observation where girls focus on the problems of form and space, and develop confidence and skills in a range of materials and techniques.

In the Middle School, the emphasis is on pictorial composition and students will develop their ideas for a 'finished' painting with reference to the work of major historical painters. For example, if the theme of their work were Landscape, they would look at the work of painters such as Constable, Turner, the Impressionists or Fauves. They would then develop their work from small compositional sketches, using mainly first- or second-hand sources, to larger paintings concentrating on paint mixing, application techniques and the ability to create the illusion of 3D space on a 2D surface.

**Textile Design:** During the First Year, the emphasis in Textiles is on familiarisation with materials, techniques and good studio practice. Girls are introduced to the use of sewing machines, along with the construction of fabric, pattern, preparation, cutting and basic construction techniques.

During the three years, the emphasis is on design and manufacture, introducing techniques such as tie-dye, batik painting, quilting, embroidery and appliqué etc. Drawing is emphasised as part of the design process and much of the work may include observational drawing as the starting point of the project.

**Three-dimensional Design:** The main material used in this area is clay, but other materials may be introduced when appropriate.

First Years concentrate on designing and making, and become aware of ceramic construction techniques such as slab, coil, moulds, sculpture etc. There is an emphasis on texture, surface design and decorative techniques. Students have a wide range of glazes, multipurpose colours, stains and lustres and, where appropriate, explore more peripheral finishes such as smoking, raku firing and pit firing.

**History of Art:** The Third Years take an informal eight week History of Art course as part of their Art rotation. The aim of the course is to introduce students to ways of looking at painting and sculpture. They explore how composition, pose, facial expression and colour are used to convey narratives, emotions, moods and ideas in works of art; they also learn how materials affect what can be achieved in sculpture and how colour is used and produced. A range of works of art is studied, from Renaissance to Abstract and students are encouraged to share their ideas through class discussion and to record their thoughts in writing.

**Assessment:** At the end of every subject block, girls are assessed and graded on some or all of the following criteria: standard of finished work, variety of materials and techniques used, variety of approaches considered, standard of preparational work, imagination/intelligence applied.

## CLASSICS

“Classics” is the term used to describe a group of three subjects: Latin, Ancient Greek and Classical Civilisation.

Classical subjects are studied at all levels in the school; Latin is studied by all girls in the First Year, and Latin or Classical Civilisation by all girls up to the end of the Third Year, then becoming an option for GCSE and above. In the first three years girls have one lesson a week. Classical civilisation is offered to those for whom a non-linguistic course is more suitable.

Our aim is to enable girls to appreciate the characteristics of ancient inflected languages, and we encourage them to explore the classical roots of English words; as a language can never be fully appreciated if divorced from its cultural and historical context, we also study some aspects of the daily lives, history and ideas of the Greeks and Romans. At all levels, girls are encouraged to discuss the similarities and differences between the ideas and values of the ancient and modern world. Cross-curricular work is an important part of the syllabus, and there is a particularly strong emphasis on grammar, laying a foundation which will be invaluable in understanding English itself or any foreign language that is subsequently studied.

Off-site activities include visits such as Rome and Pompeii, Roman Bath and the villas at Bignor and Fishbourne, whilst the Roman Experience and the Greek Experience, alternating in the summer term, enable pupils to experience everything from wearing Roman clothes and chariot racing to climbing into a full-sized Trojan horse and firing a Roman catapult.

### First Year

In the first year we use *Ab Initio* by Bob Bass. For many girls, this is their first experience of Latin, so we concentrate on the nuts and bolts of the language; particular emphasis is placed on identifying parts of speech correctly in English as well as trying to learn how these are represented in Latin; this part of the course is therefore useful to students in underpinning all their other language studies. Girls are taught in mixed ability groups on arrival and are then streamed by the end of their first year. The composition of the groups is reviewed regularly. The most able girls are introduced to Greek, and we aim to make them confident with the alphabet, breathings, and transliterations by the end of the year.

### Second & Third Year

The girls work through the remaining chapters of *Ab Initio*. The language work becomes increasingly sophisticated, and emphasis is placed on developing the different skills of translation from and into Latin, broadening vocabulary and comprehending passages written in Latin. Girls are streamed in three or four sets, and those joining the school in the Second or Third Year will be placed into the appropriate set. For some, further language study may be an inappropriate option, and these girls follow a carefully structured two year course in Classical Civilisation, using specially written coursebooks, with the possibility of progressing in this subject to GCSE. Those who study Greek should reach a standard at least equivalent to Common Entrance, thus building a good platform for taking the subject further.

Mrs Primrose Campbell, Head of Classics

# COMPUTING

Computing is a core subject and all girls in the First, Second and Third Years receive weekly lessons. Girls are taught computational thinking and problem solving, which they apply to practical problems and scenarios using block based and text based programming languages. Alongside this, they are introduced to the theoretical principles of computing and the representation of data. Girls use standard office software in the planning, analysis and evaluation of their work, ensuring that they are well prepared for their GCSE and A Level studies across the curriculum.

Our curriculum in the First, Second and Third Year is designed to give the girls a broad knowledge and understanding of computing, providing them with an excellent basis for study at IGCSE level and beyond. Girls who move into other areas in the Fourth Year find their computational thinking and problem solving skills have wide application across the curriculum.



Computing is a constantly evolving subject and we strive to keep our curriculum fresh and up to date, incorporating relevant new developments and technologies within our curriculum plan.

Our current curriculum is as follows:

## First Year

Girls are introduced to the Senior School computer systems and are taught how to use them effectively. They are introduced to the principles of computing, focusing on binary and the representation of numerical and text data. Girls are introduced to the principles of algorithmic thinking and design through a paper plane project, before applying these skills using block based programming to control our Sphero robots and BBC Micro:bits. They also have their first experience of text based programming using the Logo language. Study of ethics and the broader implications of social media are also a key element of the first year curriculum.

## Second Year

In the Second Year, girls learn about networks and the world wide web, gaining an understanding of how the internet works and developing their website programming skills with HTML and CSS. They learn how to search the web effectively. Girls develop their understanding of text based programming and algorithms using Small Basic, which forms a key element of the second year curriculum. This teaching language introduces the concept of an IDE (Integrated Development Environment) and leads naturally to the study of Visual Basic in future years. Girls return to the principles of computing and study the representation of graphics, combined with image editing.

## Third Year

In the Third Year, there is an emphasis on the development of computational thinking skills in preparation for IGCSE Computer Science. The curriculum contains further study of algorithms and programming, alongside digital literacy work. This includes the popular app development module in which girls develop their own mobile phone app and create a short promotional video.

# DRAMA

Drama is a curriculum subject which all girls follow for the first three years, attending one double lesson per week. There is a logical development of skills learned and styles and texts studied, with stronger emphasis being placed on practical work which complements written research and reflection. There are lower and senior school drama productions and a range of drama activities offered after school. Girls may also opt to take extra private Speech and Drama lessons, with the option of taking exams for the New Era Academy and Poetry Vanguard Board.

## First Year:

**UNIT 1: KEY SKILLS 1** - This Unit introduces the girls to some of the fundamental building blocks of practical Drama work and acts as a means of developing personal and creative relationships between students. Content includes the introduction of the use of chorus, mime and text. A different skill is covered every week for the first term and a half.

**UNIT 2: PERFORMANCE PROJECT 1** - Girls work together to produce a whole-class performance of 'Titanic' by David Foxton. This is a great opportunity for them to make practical and contextual use of the skills learned during the first Unit, and results in a public performance towards the end of the summer term.

## Second Year:

**UNIT 1: KEY SKILLS 2** - This Unit develops a wide range of practical skills introduced in the first year. Key practitioners are introduced and techniques are studied in greater detail. Content includes the exploration of elements of technical theatre and transformation. A different skill is developed every week for the first term and a half.

**UNIT 2: PERFORMANCE PROJECT 2** - Girls work together to produce a whole-class performance of 'Teachers' by John Godber. The focus for them is to interpret and develop the complexities of the text using a range of key skills developed during the first Unit, and results in a public performance towards the end of the summer term.

## Third Year:

**UNIT 1: KEY SKILLS 3** - This Unit allows girls to explore a range of skills and build upon work done over the last two years. In addition, the range of skills studied, including improvisation, ensemble, devising and voice-work prepare those interested in Drama at GCSE level for the demands of the curriculum. The focus of the Unit is a text of 'Medea', adapted by Splendid Productions.

**UNIT 2: PERFORMANCE PROJECT 3** - Girls work together to produce group devised performances based on the play 'Hoods' by Angela Betzein. This is the culmination of the course, and reflects the range of skills taught. Rehearsals result in a public performance towards the end of the summer term.

Mrs Rebecca Houston, Head of Drama

## ENGLISH

English is a core curriculum subject that all girls follow up to the age of sixteen. Our aim is to promote enjoyment in reading, creativity and accuracy in writing while developing students' critical and analytical faculties through the study of both literature and language, and to nurture confident and articulate speakers. We encourage girls to enter competitions, whether organised nationally, locally or within the School. English, both Literature and Language, maintain steady numbers at A-level, and some girls have chosen to study them at university.

In the **First Year**, students will study a range of poetic forms while writing and performing their own. During this time they will expand their knowledge of figurative and poetic language. They will read and study a novel, and practise their comprehension, descriptive writing and composition skills. Students will study a whole drama text, developing their knowledge of character and setting, while expanding their awareness of the dramatic genre. This will include an introduction to Shakespeare, and trips to theatrical events where possible. Existing language skills are developed in the First Year, paying particular attention to spelling, sentence structure, paragraphing and punctuation. Students will also be given the opportunity to explore a variety of non-fiction writing texts and tasks, and ample opportunities are provided throughout the year for them to engage in speaking and listening activities such as role plays and debating.

In the **Second Year**, students' will further develop their poetry writing skills, while their proficiency to analyse specific poetic techniques will be augmented through the study of more challenging poems. All students will study a prose text of a level appropriate to their division which will enable them to explore a variety of contemporary themes and issues. This material will also provide stimuli for their own non-fiction and fiction writing projects, while furthering their knowledge of more sophisticated narrative devices and continuing to build their vocabulary. Students in the Second Year will study one of Shakespeare's comedies in its entirety, focusing on characters, themes, setting and language. Again, such texts will provide numerous opportunities for speaking and listening activities such as presentations following independent and group research projects.

First and Second Years follow the Godolphin Graded Reading Scheme designed in conjunction with the Library. This includes a range of genres, both classic and contemporary, fiction and non-fiction, to broaden students' reading experience while developing their enjoyment of literature.

In the **Third Year**, there is a dedicated focus on developing the skills required for success at Key Stage 4/GCSE English. Students will study a selection of war poetry, broadening their knowledge of poetic techniques and honing their skills of close textual analysis. Through the study of dramatic tragedies such as *Romeo and Juliet* and *Journey's End*, students build their awareness of the play in performance as well as developing their interpretive skills when considering the playwright's use of language, structure and form to shape meanings. Students will produce their own pieces of writing from different genres for a range of specific audiences and purposes. The study of *Animal Farm* in the Third Year, particularly exploring satire, persuasion and irony, enables students to become skilled in the analysis and production of these forms. Study of all texts in the Third Year will enable the students to engage with specific contexts of production and reception surrounding literature. Independent research, as well as whole class discussion and analysis of the texts, helps to consolidate skills learnt during Key Stage 3 while preparing students for the beginning of GCSEs. In the final term, students will complete their GCSE speaking and listening assessment requiring them to present and answer questions on a topic of their choice.

Mrs Cristina George, Head of English



# FOOD AND NUTRITION

## **Second Year**

Food technologists design products that could be sold as part of the 'healthy eating' range in a supermarket. Groups are taught the basics of nutrition and about current Government dietary guidelines, based on their Balance of Good Health campaign. They put theory into practice by assessing how closely their products meet dietary goals, and suggest suitable improvements. They also plan well-balanced meals in their selection of suitable lunches on the Second Year trip to France.

## **Third Year**

In Food, the theme is "Fast, Fresh and Flavoursome" healthy food. The girls build on prior knowledge to create a portfolio of recipes designed to be used on a budget. Design skills are enhanced by learning about sensory testing, recording attribute profiles, as well as product analysis and comparison exercises. Practical opportunities for personal product development are also provided.

Mr Greg Clarke  
Head of Food and Nutrition

# GEOGRAPHY

Geography is studied as a core subject in the First, Second and Third Years and is an option subject at both GCSE and A level. Geographers are dynamic and possess a number of key skills relevant in today's modern world. The geography curriculum for the First, Second and Third Years allows students to explore a range of socio-economic and environmental themes and develops their literacy, numeracy, ICT, research, problem-solving, decision making and presentational skills. Fieldwork is an important component of Geography and we use the local environment as well as travelling further afield.

## First Year

1. What is Geography?
2. Coasts
3. Tourism
4. Map Skills
5. Settlements
6. Field trip to Lulworth Cove and Durdle Dor (Autumn Term)

## Second Year

1. Weather and climate, including school microclimate, field work investigation
2. Weather Hazards and Global Warming
3. Population and Migration
4. Earning a Living
5. Rivers
6. Field trip to Blashford Lakes (a cross-curricular trip with the Biology Department in the Spring Term)

## Third Year

1. Plate Tectonics
2. Asia and China
3. Development
4. Fair Trade (Research Project)
5. Biomes: Equatorial climate, Tropical rainforest and Deforestation

# **GODOLPHIN LEARNING PROGRAMME**

A programme of rich, diverse and varied content engaging and empowering students outside the other curriculum subjects.

**First Year**

**Second Year**

**Third Year**

# HISTORY

History is popular throughout the school. In the first three years, we aim to foster interest and enthusiasm in the subject by giving the girls a sense of chronology and an understanding of the key developments, themes and issues in Britain and elsewhere in the world. During this time we aim to develop a wide range of skills of analysis and evaluation, and to help the girls deepen their understanding and ability to construct persuasive arguments. At GCSE level, we follow the study the Cambridge IGCSE syllabus, which covers twentieth century history.

There are strong cross-curricular links with the English, Geography and Modern Languages departments.

## First Year: The Beginning of Modern Times (Early Modern History)



Topics include:

- the Tudors
- the Renaissance
- the Reformation
- Voyages of Discovery.

A variety of teaching strategies are employed to develop historical knowledge and skills.

## Second Year: Seventeenth-century England, the American Revolution, and the Abolition of Slavery

Topics include: James I and the Gunpowder Plot, Charles I and the English Civil War, Cromwell and the Interregnum, Charles II and the Plague and Great Fire of London, the American Revolution, and the slave trade and its abolition.

Teaching methods are designed to foster enthusiasm and build on the skills acquired in the First Year. There are opportunities for individual and group projects in liaison with the IT Department.

## Third Year: The French Revolution, the causes and nature of the First World War, and Votes for Women

As GCSE approaches, the focus in the Third Year is on skills and evidence-based activities. Topics include: the causes and events of the French Revolution; the causes and main events of the First World War; the nature of trench warfare; and the impact of the war on the countries involved. The course finishes with a study of the role and status of women in British society at the end of the nineteenth century and the campaign of the Suffragettes and Suffragists to secure votes for women.



There is a visit to the First World War Battlefields in the Summer Term.

Dr Alistair Dougall, Head of History

# MATHEMATICS

The Mathematics Department aims to provide help, encouragement and advice to individuals and to groups which will enable them to experience something of the enjoyment and sense of achievement that derives from:

- fluent, confident understanding of the technical aspects of mathematics
- the development of problem-solving skills and strategies
- forming connections with situations encountered in other areas of curriculum
- appreciation of the richness of mathematics as a vital, "unfinished" human activity.

External examinations are taken by all to IGCSE level, with many in the Sixth Form continuing to study Mathematics and/or Further Mathematics to A-level. Each year, the girls are given the opportunity to take part in the UK Mathematics Trust programmes. Regular help desks are provided as well as a wide range of extension activities offered through the School's Alpinist programme.

In the first three years at Godolphin, the aim is to give girls an appreciation of the wide applicability and central importance of Mathematics in the scientific and human worlds as a powerful tool to communicate information, to describe, to explain and, above all, to predict. Every effort is made to form connections with previous experiences of Mathematics and with situations encountered in other areas of the curriculum.

The syllabus is designed to establish solid foundations for all the girls, both for their IGCSE Mathematics course and their use of mathematics in other subjects and outside the classroom. This is achieved by building strength and confidence in their mathematical skills. Central to this is numerical ability. Arithmetic, fractions, decimals and percentages are important areas, and these basic skills are all developed with and without the use of calculators. The broad-based syllabus also includes topics from areas such as geometry, algebra, vectors and statistics, these being introduced in the First Year and regularly revisited and extended in the Second and Third Years.

Girls are encouraged to see this learning process as a building of ideas, with new work depending on previous topics. There is therefore regular revision together with periodic tests to reinforce earlier study.

First Year students begin in mixed ability classes but are set according to ability into 'Divisions' after the first half term, often splitting into more divisions higher up the school. They follow a common syllabus, but higher sets are stretched through extension topics related to current work. The top division also works towards the AQA level 2 certificate in Further Mathematics at the end of the Fifth Year. There is much flexibility in the setting of these divisions, with girls regularly changing classes as they progress through the school.

Calculators are used from the First Year, although a significant amount of work will continue to be done without their aid. The Department has a policy of encouraging the purchase of a common calculator by the girls in order to facilitate teaching. Mathematics classes also make use of the School's IT suites with, for example, classes on data-handling through use of Autograph, geometry through GeoGebra and other web-based learning tools.

# MODERN LANGUAGES

## First Year

Our aim in the First Year is to instil in the girls an appreciation of the importance of learning foreign languages and an understanding of how they work. All students study French and are taught in teaching groups. During the first half term, the girls have taster lessons in German and Spanish and then select one of these to study for the rest of the year. Linguistic concepts such as genders of nouns, definite and indefinite articles, plurals, adjectival agreements, verb patterns and negatives are introduced across the languages through familiar topics such as personal information, family, school, friends, home, animals and food. Correct pronunciation is an important focus, as is the cultural background of the countries whose languages are being studied.

## Second and Third Years

In the Second and Third Years girls continue with the two languages which have been studied in the First Year. Some topics are revisited from the First Year and developed further and new topics are introduced, such as entertainment, holidays and healthy eating, while grammatical understanding is extended to include comparatives and superlatives, reflexive verbs, modal verbs, the imperative, prepositions and past and future tenses.

At the end of the Third Year, girls continue to GCSE with one or both of the languages they are studying. The GCSE syllabus builds on the material covered in the First to Third Years within broader topic areas. The study of languages always comprises four skill areas: the receptive skills of listening and reading and the productive skills of speaking and writing. These become more defined in preparation for the GCSE exams which are themselves broken down into the four skill elements.



At all levels we aim to promote enjoyment of the languages and enable girls to achieve the satisfaction both of understanding them and communicating in them. Awareness of the cultures of the respective countries is an important integral part of the courses at all stages. Divisions are not used in First to Third Year in MFL.

Mme Nathalie Monediere, Head of Modern Languages

# MUSIC

Music is compulsory for the first three years. It is taught for two lessons a week. Teaching focuses on Listening, Performing and Composing. Our aim is to teach the girls to listen with depth and with a breadth of knowledge, to compose fluently and to perform with musicianship and understanding. The school is very well equipped for music and girls have every opportunity to use their musical talents to the full.

## First Year

The girls concentrate on Listening. They are given a firm grounding in the instruments of the Orchestra and The History of Western Music. This is followed by more detailed listening with the study of British Folk Songs and their use in Orchestral Music. Performing includes group performance of folk song arrangements and traditional class singing ending in a whole year performance at the Lower School Concert. Composition in the First Year is confined to the basics of harmony by learning and playing chord sequences.

## Second Year

The focus moves to Composition. The girls are given a thorough grounding in improvisation and harmony. They learn, through the use of the techniques of Jazz improvisation, to make up a tune of some length, to structure it using correct phrase lengths and cadences. Harmony is then introduced, and the girls learn to improvise to a given chord sequence. This is followed by song-writing with girls learning the importance of stress in correct word setting. Performance is fully integrated into this module. The girls learn how to perform Jazz in groups, including improvisation and all compositions are performed by their composers. Listening is also integral to the course particularly in understanding harmony and there is a short look at the background to Blues and Jazz music

## Third Year

There is more listening in the Third Year and the girls are expected to apply the skills of composition learnt in the Second Year and develop them further. The work is centred upon three out of four topics.

- *The Musical:* Girls study *West Side Story* and then write and perform their own musical
- *Music which tells a story.* Several works are studied including programme music and film and the pupils then write their own piece of programme music which they perform.
- *Theme and Variations.* Two works are studied and then the girls write their own variations on an original theme
- *Film Music.* The History of Film music and techniques use by film composers are studied after which the pupils write music to a four minute section of a silent film.

# PHYSICAL EDUCATION

## First Year

During the First Year, girls refine existing games skills in netball and hockey and learn new skills for lacrosse. Skills and tactics are introduced and implemented into full or small sided games. Individual gymnastic skills and routines are taught, as are themed contemporary dance and all major swimming strokes. Girls are also introduced to a block of Health Related Exercise.

In the Summer Term athletics, tennis and rounders are the major curriculum sports. Throughout the year, all sports work on a rotational basis over three double periods a week, usually in six-week blocks.

## Second Year

In the Second Year, girls have three double periods of sport. They continue to improve and acquire further skills in both the winter and summer sports studied in the First Year. Full games are played more regularly and tactics are developed. In gymnastics, girls develop skills and routines in pairs on large apparatus; in swimming they refine all four strokes and learn life saving skills, and continue with a different themed contemporary dance. Again, these sports are rotated over six-week blocks. Health Related Exercise extends into fitness tests.

## Third Year

In the Third Year, girls have three double periods of sport per week. Tactics are of greater importance in games activities and team play is further developed. The basic umpiring commands are introduced and students have an opportunity to wield a whistle. In gymnastics, girls develop trio work and perform to music on large pieces of apparatus. Water polo skills and rules are taught during swimming lessons and the students continue developing their contemporary dance. Rotations of the sports usually occur in six week blocks.

A final block of Health Related Exercise includes an introduction to the fitness suite, circuit training and nutrition.

## Teams

The Physical Education Department offers many opportunities for students to represent the school in teams in a wide range of sports. These practices take place in lunch time and after school, attendance at these sessions is compulsory if girls wish to be considered for teams.



## PRODUCT DESIGN

In Design & Technology, girls have the opportunity to work with both Resistant Materials and Food. D&T is an important area of study for all girls, not just those interested in a career in Engineering, Catering, or Product/Graphic design. Problem solving, creativity, teamwork, practical skill and meeting the needs of others are all vital skills, intrinsic to the subject that enable girls to become informed and discriminating consumers and innovators.

The aim of D&T in the first three years is to get pupils designing and making as soon as possible, developing new skills and techniques in a wide range of materials, ingredients and processes as they work. We also endeavour to introduce new and modern technologies wherever possible.

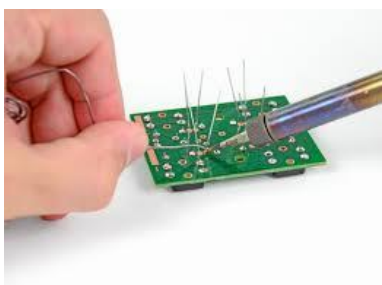
### First Year



### Second Year

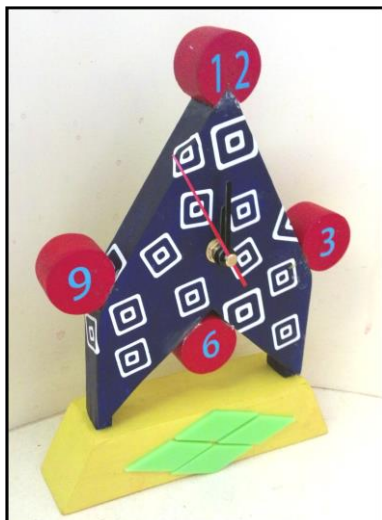
Second Year pupils spend half the year in Resistant Materials and the other half in Food.

In Resistant Materials they design and make a night light, including a vacuum-formed casing and soldering their own PCB. They investigate simple electronic components so that they understand how their circuits work. They also learn how to use a 2D CAD package to control a CNC vinyl cutter, which makes stickers with which to decorate their product. Product analysis skills are used to investigate why some products are more effective than others. At the end of their rotation, girls will also gain an introduction to the use of programmable components.



## Product Design (continued)

### Third Year



Third Year pupils spend half the year in Resistant Materials and the other half in Food.

In Resistant Materials, girls are asked to design and make a clock with additional storage in the style of the Memphis Design Movement.

As well as further developing their sketching and workshop skills, they extend their iterative designing skills through prototyping.

A range of materials and techniques are used to produce their final outcomes; including CAD (computer aided design) and CAM (computer aided manufacturing). Graphics skills are also practised by developing a point of sale display for their finished product.

Suzie McNulty  
Head of Product Design

## PSHCEE

PSHE (Personal Social and Health Education) is taught from the First to the Fifth Year inclusive. The broad aim of the course is to prepare children for adult life, i.e. to become responsible citizens, to be able to take care of themselves, and to look at issues which can be - but are not necessarily - part of the rest of the curriculum or which need to be studied from a different perspective or in greater depth.

One key aspect is the ability of the programme to take an issue which is topical either within the school community or in the outside world and deal with it as it arises. As an independent selective school it is also important to raise awareness of other social, community and political issues of life both nationally and globally. The programme is delivered not only through PSHE lessons but also through tutor time and other subject lessons e.g. Biology, Geography, History. Hence PSHE should be reflected within the ethos of the whole school, particularly its identity as a boarding school.

Topics in the First Year include sex education, friendship, family issues, self-confidence and awareness, bullying and school issues, citizenship and current affairs.

Topics in the Second Year include environmental issues, friendship issues, current affairs, peer pressure, problem solving, vandalism, caring for people and possessions, and citizenship.

Topics in the Third Year include adolescence, finance, family issues, health (including drugs), mental health, lifestyle, alcohol and smoking, sex education, AIDS and STDs, bullying, including cyber bullying, personal safety and citizenship.

In the Fourth and Fifth Years there is a lesson every fortnight for each half-year group with two or three PSHE tutors to run the session with a clear focus on discussion. Emphasis is on topical discussions. Sessions also include sex and health education, personal safety, careers, finance, politics, relationships, cyber safety and citizenship.

Mrs Sarah Eggleton, Head of PSHCEE

## RELIGIOUS STUDIES

Once upon a time Religious Studies had something of a Cinderella reputation as a non-serious subject for the nice-but-dim. The shoe, however, no longer fits, and RS has long emerged from its shadows as one of the most fascinating, wide-ranging and challenging of subjects on the curriculum. Besides its moral and philosophical depth, and its vital and obvious relevance in the modern world, it is also a significant asset in terms of academic and career prospects.

The syllabus is designed to assist girls in their own endeavour to make sense of life, including its possible origins, meaning and destiny, by means of a broad and open-ended exploration of the religious and wisdom traditions of mankind. This includes consideration of the personal, moral, social and spiritual dimensions of life and identity. While girls are encouraged to question received opinions and to come to their own conclusions, they are also assessed on their knowledge and understanding of the issues and ideas studied.

### First Year

- (a) *The roots of Religion*: an exploration of human origins, the relationship between survival and belief, superstition, ghosts and spirits, ancestors and sacrifice.
- (b) *Judaism*: The concept of God, Eden, Exodus, Torah, Orthodox and Reform Judaism, Sabbath, diet and clothing and a visit to Synagogues in Bournemouth.
- (c) *Christianity*: Connections with Judaism, the life of Jesus, major teachings, denominations, sacred buildings and a (planned) visit to a local church.
- (d) *Islam*: The life of Muhammad (and issues arising) and the main teachings. Pilgrimage and Spiritual journeys

### Second Year

- (a) *Hinduism*: Origins, fertility religions, polytheism, Hindu concepts of God, the soul, karma and reincarnation, meditation, worship, caste and social class, Gandhi and non-violence, stages of life.
- (b) *Sikhism* – a brief introduction
- (c) *Buddhism*: The life of the Buddha (and issues arising), the main teachings.

A day visit to Hindu and Sikh centres in Southall

### Third Year

- (a) *Philosophy of Religion*: Arguments for and against the existence of God, proof and faith.
- (b) *Jewish Bible (Old Testament) and Contemporary Issues*: including Eden and sexism, Cain and Abel and psychology, Abraham and identity, Exodus and racism, the persecution of the Jews and the Holocaust, love and law prophecy and social injustice.
- (c) *The New Testament and Jesus*: The Gospels as history and/or message, teaching and example of Jesus, healing, the meaning of the death and resurrection, life after death.

Dr Rachel Lidgett, Head of Religious Studies

# SCIENCE

Within the Science programme the three core areas of Biology, Chemistry and Physics are covered.

## ***Biology***

### **First Year**

In the First Year, girls are taught science by one teacher. They study two Biology topics, in one topic they review the basic principles of cell biology and the organisation of living organisms into tissues and organs; focusing on the skeleton and the nervous system. The second topic covers classification and they learn about the main animal groups, exploring the reproductive strategies of each group, taking into account the increasing degree of parental care. They will also investigate variation and the relationship between genetic and environmental causes of differences between individuals of the same species. In the summer term, a visit to Marwell Zoo consolidates their knowledge and understanding of the topics studied.

### **Second Year**

The Second Year girls spend the Autumn Term studying all aspects of Plant Biology from photosynthesis to flowering and germination. This involves a series of investigations that allow students to develop vital practical skills. In the Spring Term, they study Ecology, including a study of habitats and adaptations. This includes a trip to Blashford Lakes to explore the range of habitats and communities of plants and animals to be found in this nature reserve. In the Summer Term, they carry out project work exploring specific British habitats to include woodland.

### **Third Year**

The Third Year girls study various aspects of human biology, including diet, digestion, breathing and circulation. They will then study microbes and their effects on human health including aspects of disease transmission and prevention. These topics also focus on how lifestyle choices can affect health. This forms a strong foundation for the study of Biology at IGCSE to be studied in the Fourth and Fifth Year.

Anna Thommesen, Head of Biology

## **Chemistry**

*Why study Chemistry?* Well, there are lots of reasons. You could say because Chemistry is a necessary requirement for lots of other professions, and of course it is. You could say because it is the central science linking in with Physics and Biology to say nothing of Maths, Geography, Economics, Design and even Art. You could argue that it is a subject held in high intellectual esteem, valued by employers and universities alike. All of these points are true but they miss the point. Chemistry provides a quite fascinating glimpse into a sub-microscopic world which determines our own yet is entirely different from it. It is an absorbing, self consistent and intellectually satisfying subject yet it links in with so many aspects of our everyday lives. There is nothing quite like it.

### **First Year**

First Year Chemistry is taught as part of a general science course by a single teacher. The emphasis in Chemistry is to teach girls to work safely in a laboratory and get them to experience a number of different experimental methods. We look at the idea of a pure substance and ways to purify one that isn't - using filtration, distillation and even chromatography. We also look at solutions and solvents.

### **Second Year**

Second Year Chemistry centres around a few crucial ideas that will become increasingly important later on. The first is using the concept of particles to explain the behaviour of solids, liquids and gases and things like expansion, pressure and evaporation. This is followed by an introduction to elements, compounds and mixtures and the key differences between them and then by a good look at the Periodic Table which is at the heart of most Chemistry.

### **Third Year 3**

This is the start of IGCSE science courses in that much of what is done here might find its way into an IGCSE Chemistry paper. We start by introducing the idea of atoms and their structure using electrons, protons and neutrons. This is related to the work on the Periodic Table done last year. This is followed by some time spent on chemical equations including balancing symbol equations. We then use these ideas when investigating acids, bases and salts. Finally, we introduce the ideas of isotopes and ionic bonding.

## **Physics**

At Godolphin, we aim to provide an interesting, exciting and rigorous syllabus for the girls. In order to accomplish this, an underlying theme is covered for each year. This provides a linked, contextual base for all the work that is covered during the year, rather than teaching seemingly unrelated topics from the vast (and sometimes daunting) subject that is physics. By learning to make sense of the world around them, girls will gain valuable skills to help them in whichever academic path they choose to follow, scientific or otherwise.

### **First Year Theme: Making sense of phenomena**

This year will serve as a bridge from KS2, and introduce girls to physics as a distinct subject. While the mathematical content will be low, as it cannot be assumed that all pupils will have the requisite mathematical skills at this stage to handle equations, pupils will be required to develop certain key analytical skills during the year. These will be critical if they are to cope with the increasing demands of the subject during subsequent years. The main topics to be covered during the First Year are:

- Measurement, including the concept of hypothesis, and analysing experimental data
- Energy & Heat, including temperature, conservation of energy and energy resources
- Electricity, including static electricity, current and voltage in series and parallel circuits
- Magnetism, including magnetic materials, magnetic fields and electromagnets

### **Second Year Theme: Making sense of the cosmos**

The year shall concentrate on those topics within Physics which are crucial to the understanding of the cosmos around us. Of course, all topics within physics are related to the functioning of the cosmos in some way. However, the topics chosen here are those most closely linked to the study of the cosmos as undertaken by scientists from Galileo onwards, if not earlier. This allows the module to be placed within a historical context as well as a scientific one. The main topics to be covered during the Second Year are:

- Light, including shadows, reflection, refraction, lenses and the spectrum
- Force and motion, including speed, weight, friction and balanced/unbalanced forces
- The Earth, Moon and Sun, including the seasons and eclipses
- The Solar System and Beyond
- End of year project (related to the work on Space)

### **Third Year Theme: Making sense of matter**

The year concentrates on those topics within Physics which are important to the understanding of the material world, and why and how it behaves in the way that it does. Much of the material under study will be of direct relevance to the subsequent IGCSE studies. Indeed, covering some of these topics during this year enables a broader and deeper study than would have been otherwise permitted if they were to be tackled during the IGCSE alone. The main topics to be covered during the Third Year are:

- Density, including the techniques used to measure the density of solids, liquids and gases
- Pressure, including solid pressure, pressure in fluids, atmospheric pressure, hydraulics and buoyancy
- Heat, including conduction, convection, radiation, evaporation and expansion
- Waves, including characteristics and behaviour, using examples such as water waves and waves in springs
- Sound, including its source as a vibration, transmission as a wave, relationship between pitch/loudness and frequency/amplitude, speed in various media, and uses of ultrasound