



## **Gateways High School Subject Information**

### ***Mathematics***

The mathematics department believes that an essential element of mathematical learning is to build lateral thinking and analytical skills. These skills, combined with the necessary rigour of the mathematics curriculum, develop competent mathematicians at all ability levels.

#### **Upper III–Upper IV**

Girls follow the National Framework for Mathematics as laid down by the National Curriculum and the National Numeracy Strategy. Pupils are taught in three sets according to attainment. The school has active Stella groups running for Upper III, Lower IV and Upper IV, which use dedicated material that is designed to challenge those who are mathematically gifted. In the Summer term, the girls are involved in a Summer circus of activities, which develop their investigative and research skills.

#### **IGCSE**

Gateways has embarked on the International GCSE (IGCSE) course, following the Edexcel specification. There are two tiers of entry – Higher, where grades A\*–D are attainable, and Foundation, where grades C–G may be achieved. The IGCSE does not have a coursework element. Marks are obtained from sitting two examination papers taken at the end of Upper V.

#### **Extra-curricular**

Drop-in Mathematics Clinics are offered during lunchtimes, providing help and support to students in all years. All classes are taught using interactive whiteboards, which are particularly effective in teaching all aspects of Mathematics.

Girls throughout the school participate in the Mathematics challenges run by the UK Mathematics Trust. In addition, a team made up of Lower IV and Upper IV mathematicians represent the school in the Mathematics Team Challenge.

### ***Science***

All three sciences: Biology, Chemistry and Physics are taught as separate subjects from entry to the High School in Upper III. The department has greatly benefited from the recent development of the Schofield Building, gaining additional laboratories and refurbishment of the existing rooms. There are currently three specialist teaching laboratories as well as a general science laboratory and a dedicated Sixth Form teaching laboratory. Each laboratory is fully equipped and is resourced with an interactive whiteboard.

A weekly Science Club takes place on Friday lunchtimes for girls in Upper III, where they can also interact with girls in Upper School.

Each year the Science department organises a programme of events for National Science Week. This year Lower School enjoyed a visit from the Science Bus and Upper School invited a speaker into the department to talk about Toxicology and 'the gentle art of poisoning'.

The department organises a variety of educational out of school visits at different stages throughout the school year. Recently these have included visits to The Deep and Jodrell Bank and pupils attended the Faraday Lecture at the University of Leeds.

### ***Biology***

Biology is a fascinating subject that touches all aspects of everyday life. At Gateways it is an extremely popular subject choice. Lessons are taught using a range of teaching styles and techniques to encourage the development of skills and an investigative approach to each topic.

#### **Upper III and Lower IV**

The curriculum explores a number of topics including micro-organisms and disease, ecological relationships, food and digestion and fitness and health. A range of teaching styles is used incorporating the development of investigative and practical skills. Girls observe and examine a variety of living organisms, as well as learning about themselves. The department is well equipped, using the latest technology and resources to encourage and stimulate learning.

#### **IGCSE**

In Upper IV girls study Biology as part of the Edexcel International GCSE (IGCSE) Double Award Science course. This provides specialist teaching in the three separate sciences and gives every girl the opportunity to achieve two grades in GCSE for Science and then go on to study any of the sciences successfully to advanced level. Girls are encouraged to carry out independent research into topical issues and to discuss, present and debate these. These have included genetic engineering, cloning and environmental concerns.

### ***Chemistry***

This exciting subject asks questions about materials, how they react with one another and how heat or other forms of energy affect them. Chemistry offers challenge, success, the discovery of patterns and the ability to predict with confidence. A chemist has the power to really make a difference to someone's health and environment.

#### **Upper III and Lower IV**

Topics at Lower III and Upper IV include simple chemical reactions, the particle model of solids, liquids and gases, atoms, compound and mixtures, acids and alkalis and the reaction of metals. Practical skills are developed and results are analysed so that predictions about reactivity of metals, for instance, can be made with confidence. Pupils enjoy varied approaches to their study working both

independently and as part of a team. Interactive software programmes, visits, presentations and role play have an impact on pupils with varied learning styles.

### **IGCSE**

Chemistry is taught as a separate subject, within the Edexcel International GCSE (IGCSE) Double Award scheme, hence preparation for successful A Level study is thorough and pupils enjoy being successful in gaining two GCSEs. Pupils are given individual encouragement to achieve their highest potential and to develop their analytical and critical skills using a wide variety of resources. The key skills of working with others, problem solving and applying numerical ability are developed.

### ***Physics***

Physics is a fascinating subject that allows us to explain many things in the modern world. It deals with the forces that shape the universe right from the tiniest particle to forces between planets and stars. It can explain the way we send messages, how we move and the materials that things are made from. Studying Physics develops investigative and analytical skills.

### **Upper III and Lower IV**

The aim in Lower School is to encourage the girls to develop the confidence and curiosity to approach topics in a questioning and thoughtful way. Small class sizes allow us to provide a variety of teaching and learning styles. Girls are given the opportunity to present science through reports, investigations, displays and models, and the use of ICT is encouraged. Topics include heat, electricity and Earth and space. Our bank of resources includes a well-equipped laboratory, laptops, data-logging equipment, CD Roms and an interactive whiteboard.

### **IGCSE**

In Upper School girls further develop the knowledge and skills gained in Lower IV as they prepare for their double award International GCSE (IGCSE) examination. The girls' potential is developed through individual, small group and whole class teaching approaches by specialist staff. They are encouraged to extend their knowledge with research projects using the Internet and resources from the library and this produces positive responses and an inquisitive approach to enquiries. Practical equipment includes a data-logging equipment, microwave kits, electrical and electrostatics kits, cathode ray oscilloscopes and radioactivity equipment. At the end of Upper V girls are entered for the IGCSE Double Award Science examination where they will sit a separate paper in each of the three Science subjects.

### ***Business Studies***

Girls may choose to study Business Studies from Lower V onwards. Business Studies allows pupils to gain a better understanding of our modern industrial society. Real examples are used to examine various types of organisations from the corner shop to huge multinationals. Girls research who owns them, how they are financed, how they are organised and how they grow. Business Studies fits well with all other disciplines.

### **GCSE**

At GCSE level, both the traditional GCSE and the GCSE in Applied Business are

offered. The GCSE consists of 75% examination and 25% coursework and features a pre-released case study for the final examination. The Applied Business course is more vocational in context and is a double option, counting for two GCSE awards. This course consists of 66% coursework and is more suited to those who prefer continuous assessment. Pupils taking Business Studies find extra-curricular opportunities, such as helping with G-Bay, Business Club and LEAP, enjoyable and beneficial, although the whole school is welcome to attend these activities.

## **English**

English mirrors life in its dynamic, endlessly exciting nature. The department aims to enable each girl to express herself in an imaginative, careful and exciting way, working both independently and in co-operation with others. Annual events, such as our whole school Poetry Competition and World Book Day celebrations, complement regular extra-curricular features like the Parent and Daughter Book Club: girls of all ages in the High School are fully involved in the planning and organisation of each activity.

## **Upper III–Upper IV**

The English department is literature led and seeks to cultivate a very wide range of skills through an exhilarating, but disciplined, use of language. The girls are immediately made aware of the importance of writing as a craft; words are moulded and re-fashioned in the light of specific objectives. Spelling, punctuation and grammar are the equivalent of a musical score. The programme of study is innovative, wide-ranging and coherent. All literary genres are explored, not only analysed, but redefined through, for example, the creation of additional scenes or verses drawn from each girl's imagination. Similarly, the girls are introduced to a variety of non-literary texts and learn to interpret the importance of presentational devices. Articles, leaflets and posters become the source of discussions, debates and original essays, or designs, upon similar themes.

## **GCSE**

Building on the flexible, but rigorous programme in the first years of High School, all pupils sit GCSEs in both English and English Literature, following the AQA Examination Board specifications. Each girl is encouraged to realise her highest expectations by developing a love of words and reading widely. The key components of GCSE English are speaking and listening, reading and writing skills. Some assignments, such as media analysis and original writing, are assessed as discrete units, but others, like the Shakespeare and prose studies, are 'cross-over' tasks, which enable the girls to be assessed for both subjects. GCSE English Literature can also be integrated into our programme of study through a series of oral activities, like role plays, presentations and reviews based upon set texts.

## **Modern Languages**

On entry to the Gateways High School every pupil has the opportunity to start learning three modern foreign languages: French, German and Spanish. It is important that pupils choose the languages they wish to study, and therefore an open choice is offered at all levels. The department is exceptionally well equipped, being housed in a suite of specialist rooms in the new Schofield Building which opened in September 2004. There are three dedicated language rooms with

Smartboards, video and satellite TV as well as a multi-media language laboratory to which all pupils have access. This is a thriving and popular department demonstrated by the fact that the number of girls choosing to study languages at higher levels is continually increasing. A comprehensive programme of visits and exchanges to France, Germany and Spain, gives all girls the opportunity to visit the country of the language(s) they are studying at least once.

### **Upper III–Upper IV**

All girls have a 'taste' of French, German and Spanish for one year – two lessons each per week. At the end of first year most pupils select two languages to continue for the next two years, although due to popular demand it is possible to continue with all three and increasing numbers of girls are choosing this option. The emphasis throughout is on spoken language and the fun of learning languages.

### **GCSE**

Pupils must study one modern foreign language to GCSE level and they are encouraged to study more than one to reflect the importance of modern foreign languages in applying for jobs and university. Building on work during the first years of High School, language skills are developed and refined with more grammar being taught at this stage and an increasing emphasis on developing fluency and confidence. The AQA GCSE exam is divided into four skills: listening, speaking, reading and writing, each of which is worth an equal 25% of the final mark. Topics studied include family, education, leisure, holidays, healthy living, and house and home.

### ***History***

*'History is about people, when you understand people you can live a full life!'*

**Charles Miller (Chairman ICI)**

History does indeed provide the opportunity to study people's actions and the impact of these on their society, throughout a number of very different times and cultures. Pupils study significant individuals and events in British, European and World History from 1066 to the present, and are encouraged to look critically at information, gaining awareness that the past can be interpreted in different ways. Thinking and the creation of reasoned arguments are priorities. Confidence in these areas is achieved through role-play, discussion and essay writing.

There are many useful websites for history and all girls are issued with a list of the most valuable for reference and research. The school is a member of The History Association and [www.activehistory.co.uk](http://www.activehistory.co.uk) which all girls have access to both at school and home. Visits enhance the learning wherever possible and the girls visit local museums, castles, and houses for workshops and support.

### **Upper III–Upper IV**

Pupils develop their knowledge of Britain from the Middle Ages to the 20th Century, building on and developing the work done at Key Stage 2. They also study key aspects of European and World History. Research and debating skills are enhanced through a variety of topics where thinking and decision making activities are crucial. ICT applications are regularly used for research and presentations.

## **GCSE**

This is a popular option at GCSE and builds upon the skills already learned during the first years of High School. The course follows OCR Modern World History, which has a 25% coursework element on the rise of Hitler. This involves in-depth studies of international relations from 1919 to 1948, USA and Britain from 1906 to 1918.

## **Geography**

Geography is a dynamic subject that offers students the opportunity to explore and gain an understanding of the world around them and to develop practical skills such as map reading. It is a valuable subject both in its own right and one that enables skills from across the curriculum to be used in an objective and reflective manner. It also promotes critical thinking through fieldwork and evaluated research rather than unquestioning acceptance of textbook material.

## **Upper III–Upper IV**

The syllabus allows students to gain an understanding of traditional subjects such as coasts, weather and settlement, enhanced by more contemporary topics such as crime and environmental pollution. Woven into these topics is a background of improving pupils' awareness of location and analytical and descriptive written skills.

## **GCSE**

Pupils choosing to study geography at GCSE follow the thematic AQA specification A, which covers six main topics. Tectonics, rivers and ecosystems are the topics for physical geography while settlement, industry and managing resources and tourism make up the human geography element. There is one piece of coursework, written up following a local field day, which contributes 25% towards the final grade.

## **Classics**

Gateways is one of only a few schools that offers all three aspects of Classics to GCSE standard. We aim to provide the girls with an insight into the civilisations which have had such a profound impact on our own.

## **Upper III–Upper IV**

Pupils follow the Cambridge Latin Course, which provides a solid introduction to the Latin language and to the Roman civilisation as set in the town of Pompeii. Topics covered at this stage include the theatre, gladiatorial shows, Roman food and, of course, the eruption of Vesuvius in AD 79. At the end of the first book the pupils sit the Cambridge School Classics Project Graded Test. Successful candidates receive a certificate.

Considerable use is made of the ICT resources which back up the course. Students should expect to be in the languages computer suite on alternate weeks.

## **GCSE**

Classical Civilisation at GCSE involves the study of five topics, three of which are works of literature in translation, such as Homer's *Odyssey* and Ovid's *Metamorphoses*. The other two topics are civilisation topics, where students learn about the ancient Olympic Games and Greek theatre.

Classical Greek is also offered at GCSE. Two texts are studied in the original

language, one verse and one prose. This subject is normally studied after school. Students with a particular interest in studying this subject should see the Head of Department.

Latin at GCSE covers four areas: language, verse literature, prose literature, Roman civilisation. We continue to use the Cambridge Latin course to develop language skills.

We read and discuss the prescribed literature as early as possible. Texts in the past have included extracts from Virgil's epic poem about the adventures of the Trojan prince Aeneas; some of Ovid's stories from Greek mythology; Pliny's description of the eruption of Vesuvius and the actions of his heroic uncle.

There is a civilisation component to the course where there are a range of topics for study has included Roman Daily Life, Roman Britain and Roman Women.

### ***Religious Studies***

It would be hard to find an area of the curriculum in which some aspect of Religious Studies did not appear. This is because Religious Studies covers more than a study of a religion, but covers aspects of all world religions, beliefs and ethical and philosophical stances. The subject also looks at people, how they behave and think, and the responses they provoke. In a multi-cultured, multi-ethnic, multi-racial tolerant society, awareness of the skills inculcated within Religious Studies is a must.

### **Upper III–Upper IV**

The Lower School syllabus begins with a series of creative lessons in which the pupils learn, through a fantasy island exercise, about ritual, sacred objects, holy places and the need for laws and structure. We then begin studies of Islam and Sikhism. These themes are then developed through a study of the life and teachings of Jesus, Judaism and then a gentle introduction to philosophical ideas and ethical stances about religion at the end of Upper IV.

### **Key Stage 4**

All girls have one lesson of RS a week, in which they discuss topical and controversial ethical issues.

### **GCSE**

Pupils can choose to study the two religions of Judaism and Christianity in detail to GCSE level. Take up is good, and results are widely acknowledged to be first-class, with many girls receiving their highest grade in Religious Studies.

### ***Art and Design***

#### **Upper III–Upper IV**

Art and Design play a key role in the general education of all Lower School pupils at Gateways School. The pupils are introduced to a wide range of media and techniques ranging from observational drawing to plaster casting and sculpture. Many projects are based on critical studies as it is vital that the students are able to make connections with the work of other artists. The department aims and objectives strongly reflect the national curriculum, although we do provide a more

diverse and varied experience.

### **GCSE**

The course consists of two years of intense study building on the skills and concepts developed during the first years of High School. Girls are encouraged to explore their own ideas and interests as widely as possible, choosing appropriate materials to fulfil their experiences. Coursework makes up 60% of the overall mark and this consists of two projects, one developed during Lower V (Year 10) and the other during the first two terms of Upper V (Year 11). In Lower V the students are given a specific starting point but then encouraged to develop their projects in a more personal way. In Upper V the girls write their own brief and this leads to some varied and very personal work.

### **Extra-curricular activities**

It is the aim of the department that all year groups go on one visit each year to a gallery or exhibition relevant to their studies. Leeds Art Gallery, Yorkshire Sculpture Park, The National Gallery, Tate Modern, Tate Britain, The Victoria and Albert Museum and the Zandra Rhodes Museum of Fashion and Textiles are visited regularly. Sixth Form students also have the opportunity to take part in life drawing sessions during the year.

### ***Information and Communications Technology***

Learning to use Information and Communications Technology (ICT) is fundamental to everyone's education. The ICT department aims to equip pupils with the confidence and skills to use ICT effectively in a wide range of circumstances. Gateways School has high-speed connection using Leeds Learning Network, which gives fully monitored, safe access to the Internet. Pupils are given their own e-mail account, web space and e-portfolio which is fully accessible through the Internet outside school.

### **Upper III–Upper IV**

The curriculum builds confidence in the use of applications packages through projects in taught lessons. This includes modules on file management, effective research using the Internet, keyboard skills, word-processing, spreadsheets, databases, website design and presentation packages. ICT skills are invaluable across the whole curriculum.

### **GCSE**

The popular GCSE course consists of 60% coursework and 40% examination with an emphasis on learning to use ICT in practical situations. Results are exceptional.

### **CLAIT (Computer Literacy and Information Technology)**

It is the school's policy that every pupil should have the opportunity to gain a qualification in ICT. All Upper School pupils prepare for the OCR New Computer Literacy and Information Technology Level 1 qualification. The qualification is widely recognised by colleges and employers as demonstrating basic competence in a number of software packages.

### **Extra-curricular**

The ICT facilities are available during break and after school. Pupils are encouraged

to make full use of the facilities in all areas of their studies.

## ***Drama***

Drama is a thriving subject at Gateways. Pupils have many opportunities to experience drama both practically and on regular theatre visits. The department is exceptionally lucky to have the Performing Arts Centre as its base: a purpose built theatre, equipped with state-of-the-art lighting and sound systems. Pupils study drama within the English curriculum during the first three years of High School. Thereafter Drama and Theatre Arts can be studied for public examinations.

## **GCSE**

Edexcel's GCSE Drama is a popular option, offering students the opportunity to further their skills in creating and developing their own drama as well as approaching scripted work. There are opportunities to develop new skills in areas such as costume, stage management, lighting and sound, set design, props and mask design. The course is examined by a combination of practical and written work.

## ***Music***

Music is a practical, creative, exhilarating and enjoyable subject that can influence and benefit all pupils in school. Indeed, current educational thinking promotes the view that classroom music is for the masses and not just for a small number of pupils who play musical instruments. Three areas of musical experience combine to make the curriculum exciting for all pupils: Composition, Listening and Appraising and Performing. Pupils from Nursery to Upper IV (Year 9) have two timetabled slots of music per week. GCSE pupils have four lessons per week while Lower Sixth and Upper Sixth have seven and eight respectively.

## **Upper III–Upper IV**

In the Lower School, work is broken up into half-term units across the age groups. Topics covered include popular and jazz music, music from around the world, musical instruments and instrumental families and programme music. Each topic involves some performance and composition in small groups and some general grounding in music theory and notation. Practical work is completed on acoustic instruments or using ICT. Current programmes include: Cubase, Cubasis and Sibelius used in conjunction with Roland Sound Canvas sound boxes. Through these programmes, pupils learn an enormous amount about score reading and writing and how to blend different instrumental sounds in ensemble.

## **GCSE**

Pupils follow the AQA examination board specification. Listening and Appreciation covers five main areas: music for dance, music for film, popular music since 1960, orchestral landmarks and music for special events. Pupils also have to perform as a soloist and in ensemble and complete a composition folio containing two original pieces. The final part of the exam work is an Integrated Assignment set by the board in which pupils compose and realise their own music. In the past six years there has been a 100% pass rate with many passes at A or A\* level.

## ***Physical Education***

Physical Education helps pupils develop an understanding of their capabilities,

potential and limitations. It provides opportunities to build self confidence and self esteem through the teaching of a variety of activities. The main aim of the subject is to develop skill an understanding in the different activities and educate pupils for future leisure opportunities. Physical Education is taught exclusively by three specialist teachers who oversee the development of specific areas of activity. Gateways School encourages all pupils to be interested in, participate in and enjoy a variety of sports and physical activities. Physical Education is the basis of all sports participation and the foundation for a healthy and active lifestyle. Regular house matches provide an opportunity for all pupils to participate in a wide range of activities.

### **Upper III–Upper IV**

Pupils are involved in a broad selection of activities including the traditional sports of netball, hockey, gymnastics, athletics, tennis and rounders as well as basketball, tag rugby, football, orienteering, climbing and use of the fitness suite. Pupils build on the knowledge acquired in Key Stage 1 and 2, learning how to refine and perfect specific techniques for each activity. A health-related focus is maintained throughout all activities.

### **Key Stage 4**

All pupils continue the study of the subject in curriculum time. Activities are biased towards leisure opportunities and include personal training, Sports Leaders awards, trampolining and dance, as well as activities experienced in the early years of High School.

### **GCSE**

In Key Stage 4, pupils have the opportunity to participate in GCSE Physical Education. The syllabus of this exam includes sports injuries, training methods, drugs in sport, diet and physiology. There is a practical component of the course where pupils participate in four activities and a personal exercise plan. This GCSE builds on the knowledge gained previously and goes into greater detail regarding sports participation and the benefits of a healthy lifestyle. Theoretical elements of the course are taught, where ever possible in a practical setting.

The Physical Education department operates practices and fixtures in a number of activities. Practices take place before school, at lunchtime and after school. Teams regularly participate in inter-school fixtures and are very successful in local leagues and competitions. These practices are open to all pupils regardless of experience and ability. Many of the pupils represent the district and county teams in a variety of activities.

High standards of participation, appearance and hygiene are encouraged at all times.

### **Technology**

Technology is taught in three specialist subject areas in the first years of high School: Food, Design Technology and Textiles. Food Technology is available as an option at both GCSE and A Level. The Technology Department aims to develop pupils' problem solving skills and understanding of working environments while promoting basic life skills.

### **Upper III–Upper IV**

Throughout these years pupils are given the opportunity to experience all areas of the subject. Projects rotate around Food, DT and Textiles through design and problem solving tasks. The department encourages a hands-on approach to learning. The schemes include basic cooking skills, an introduction to plastics, a variety of textile techniques and graphical drawing.

### **GCSE**

Pupils studying Food Technology cover a large selection of practical and theory topics. The course consists of 60% coursework, based on both designing and making on a topic of their choice, and 40% examination, for which some advance preparation is allowed. For two consecutive years Gateways pupils have gained recognition for being among those who achieved the top five results in the country. GCSE students enjoy a visit to Warburtons Bakery during the course.