



FOUNDED IN 1487

STOCKPORT GRAMMAR SCHOOL

Lower School Handbook



Welcome to the Lower School

I am very pleased to welcome you to the Lower School. We want your child to fulfil their potential, and to be busy and happy. We want them to take full advantage of the wide range of opportunities available both inside and outside the classroom. The academic work undertaken in the Lower School is very important in laying firm foundations for Middle School options and for specialist advanced studies in the Sixth Form and beyond. We offer a combination of excellent teaching, a variety of programmes of study, good counselling and sound advice to help your child develop an appetite for intellectual enquiry, an enthusiasm for study and the self confidence that comes from establishing effective work habits. We encourage every child to take part in and enjoy the school's extensive programme of cultural, sporting and extra-curricular activities. We attach particular importance to the development of excellent links between school and home. Experienced Form Tutors have responsibility for the pastoral care of every pupil and they are keen to keep in regular contact with you. They see pupils each morning and afternoon to support and monitor all aspects of academic progress, foster the welfare of each individual and oversee personal development. We look forward to welcoming your child to our happy and supportive school community, and to working closely with you in the years to come.



Mrs Helen Lawson, Head of Lower School

Form Groups

The First Year has just over 150 pupils who come from a wide range of independent and maintained primary and junior schools. They are divided into seven equal Forms with girls and boys evenly distributed throughout. As the entrance examination is a selection procedure in itself, there is no setting or streaming in the First Year. The pupils are allocated Forms with the express purpose of mixing them as much as possible in terms of ability and previous experience. As all the pupils are very capable, they gain greatly from this practice, learning much of value from each other. The pupils form close partnerships with their Form Tutors.

If Form Tutors are to provide the help they intend, they need to know when there are uncertainties. It is therefore essential that they are kept informed of any special circumstances such as family illness or bereavement. We also ask that you encourage your child to share any worries and difficulties with their Form Tutor, however small they may seem. They should keep their Form Tutor up to date on all their activities, both inside and outside the classroom.

Each Year in the Lower School has its own Head of Year who, alongside the Head of Lower School, has overall responsibility for the pastoral care of your child. The Head of First Year is Mrs Esther Suttle, the Head of Second Year is Miss Sharon Withington and the Head of Third Year is Dr Emanuela Zanda. Mr Dom Breffit also works as an Assistant head of Year in the Lower School



INDUCTION

A few weeks into the Autumn Term all First Year pupils take part in a two day adventure to Ilam Hall Youth Hotel in Derbyshire. Ilam Hall, a picturesque country house in the Derbyshire Dales, provides a comfortable and secure base from which to explore the area and undertake specially designed tasks. Pupils will spend time working with teachers from the Art and English departments, visiting Chatsworth House and enjoying a walk in the local countryside.

Focusing on fresh starts and friendships, the inspiring, challenging and confidence building activities encourage lively interaction and centre on team-building in order to accelerate the settling in period and encourage respect for other pupils and teachers.

Activities are both educational and social, intended to furnish pupils with skills that will be valuable throughout their time at SGS, such as personal organisational skills and increased independence.

Existing friendships are cemented and new ones are begun; group challenges bring together pupils who might not otherwise meet; team work and the offering of support and encouragement to others become second nature. In addition, the boys and girls will reflect on their experiences during lessons in English, Life Studies and Art.



The school keeps all aspects of the curriculum, the timetable and the school day under regular review. We are firmly committed to the principle of breadth in education and to the promotion of your child's learning in social, cultural and moral matters.

The Lower School Timetable

Timetables for all pupils throughout the Senior School follow a two-week cycle. This means that instead of listing the same set of lessons per week, pupils' timetables will instead list two weeks' worth of lessons. To differentiate between each, the first week is Blue Week and the second Yellow Week. After ten school days of lessons, the cycle begins with Blue Week again. There are five lessons per day, with each lesson lasting one hour. There are fifty lessons per fortnight. The fortnightly cycle is also called the ten day cycle, referring to the number of school days it includes.

The ten day cycle gives us more flexibility in delivering a wide curriculum and the five one hour lessons each day allow topics to be explored in depth and in a variety of ways. It is clearly marked in their school planner.

How is the School Day organised?

The Timing of the School Day

8.40	Form Registration
8.50	Assembly
9.10	Period 1
10.10	Period 2
11.10	Break
11.30	Period 3
12.30	End of Morning School
	LUNCH
1.40	Afternoon Registration
1.50	Period 4
2.50	Period 5
3.50	End of Afternoon School

Options

In the Second Year, pupils begin the process of choosing which languages and which creative and practical subjects they wish to study in Third Year. Pupils choose five subjects from the following: Latin, French, German, Spanish, Art, Design Technology, Food Technology, Music and Computer Science. Two of the five options must be a language. Spanish is introduced in Third Year to give boys and girls a taster of the language in order for them to make an informed choice at GCSE. Religion, Philosophy and Ethics is also formally taught from Third Year in one lesson per week. In First and Second Year, themes and skills central to the subject are taught through the Life Studies curriculum.

In the Third Year, pupils will be asked to make their choices for GCSEs. Mathematics, English Language, English Literature, at least two Sciences and at least one Modern Foreign Language are compulsory.

The school's Careers Officer, Mrs Helen Tadman, advises pupils on their choices of GCSE subjects and they all attend an Options Evening (along with their parents) in the January of their Third Year. Here they will be given more help and information on making sensible choices. Options are finalised after the Parents' Evening in the Spring Term.



How many lessons are provided in each subject area over the course of the ten day cycle?

Subject Area	First Year	Second Year	Third Year
Mathematics	6	6	6
English	6*	6*	6
Biology	3	3	3
Chemistry	3	3	3
Physics	3	3	3
History	3	3	3
Geography	3	3	3
Physical Education	5	3	4
Classics	1	2	0
Life Studies	2	2	2
Religious Studies/Ethics	0	0	2
Computer Science	2	2	
Languages			Choose five subjects, with three lessons for each subject per cycle. Two of the choices must be a language.
• French	5	3	
• German	0	3	
• Latin	0	3	
• Spanish	0	0	
Creative Subjects			
• Art	3	2	
• Design Tech	} 2	2	
• Food Tech		2	
• Music		2	

*of which one lesson is Drama.

The National Curriculum

The Lower School curriculum is designed to suit the particular abilities of our own pupils. Nearly all who join the First Year have followed the National Curriculum for Key Stages 1 and 2. Stockport Grammar School does not follow the National Curriculum exactly, but as GCSE is Key Stage 4, our work is very similar to the National Curriculum. It is school policy to encourage pupils to tackle challenging work and develop independent study skills.

Reports

Reports will be issued via the Parent Portal at the end of the Autumn and Summer Terms, giving a view of both term and examination performance. These are in addition to Parents' Evenings and regular assessments. The report includes the Effort and Attainment grades which have been awarded to each pupil. Each grade is awarded on a five point scale and descriptors of each point on the scale are included with the report.

Parents' Evenings

You will be invited to two Parents' Evenings during the course of your child's first year at SGS. The first - an Information Evening - is in the first half of the Autumn Term. The purpose of this evening is to monitor how well pupils have settled in to life at SGS and to discuss their likely academic progress. You will meet your child's Form Tutor and hear from the Head of First Year about important forthcoming dates and events.

Early in the Summer Term you will be given the chance to meet all of your child's subject teachers and to evaluate your child's academic attainment. If concerns arise at any time in the school year, do not hesitate to contact a Form Tutor, the Head of First Year or the Head of Lower School.



Examinations / Assessment Tests

These are taken in the Summer Term by every pupil in the Lower School, as well as end-of-topic tests and assignments which are arranged by departments throughout the year. While examinations provide an indication of progress, they also provide invaluable experience in revising and learning each year.

By the time GCSEs are taken in the Fifth Year, boys and girls know what is expected of them and how they should prepare for their public examinations. The internal school examinations are particularly helpful for those whose examination techniques need strengthening; the more experience they have, the better.

Homework

In the early weeks of the First Year, pupils are introduced gradually to the homework timetable so that they can adapt to the rigours of Senior School study. Teachers will aim to balance written work with specific learning and research tasks when setting homework, in order to identify skill levels in a variety of areas. After the first four weeks, each pupil can expect to have three homework tasks each evening; each subject should take no longer than 30 minutes.

Homework tasks should give pupils an opportunity to extend work done in the classroom, while stretching and challenging the pupil's knowledge and understanding of a topic. Some tasks may be a preparation for the next lesson, and many tasks will require some element of exploratory thinking. Value is placed upon quality, rather than quantity; depth and critical thinking should be at the heart of all private study.

A pupil's ability to organise and complete homework contributes significantly to the development of consistent work patterns. The Head of First Year will monitor closely the setting and completion of homework in the First Year. If your child regularly has significantly more or less than one and a half hours of homework, the Head of First Year should be advised.

Grade Sheets

These record the effort grades for each pupil in every subject. Effort grades are given on a regular basis throughout the year. They are recorded on individual sheets which are published via the Parent Portal. Attainment grades are also given towards the end of each term. Parents should view the grades and acknowledge them via the link on the Parent Portal, where it is possible to leave a comment or request a meeting with a Head of Year.

Pupils with poor effort grades are seen by their Form Tutor and the Head of Year. Those who have been particularly indolent or who need help in organising themselves are placed "On Report"; they are issued with a card which is presented to subject teachers at the start of each lesson. The teacher either initials the card in the relevant space to indicate that everything is satisfactory or makes a comment. The card is taken home each day for parents to see and then sign. Form Tutors also monitor progress each day as does the Head of Year at the end of each week, when a new card is issued and targets are set for the following week. A pupil will remain "On Report" until all the members of staff concerned are satisfied that there has been a genuine improvement in both effort and attitude.



The House System

Pupils are allocated to one of four Houses when they join the school. They attend House Assemblies and Inter-House competitions are run throughout the year. The Houses are Arden, Nicholson, Vernon and Warren.

Attendance

When a pupil is absent from school, it is helpful to leave a message with the School Office for the Form Tutor. The school then knows that the parents have confirmed that their child is not attending school and arrangements can be made to send work home. Except in the case of illness, a pupil may miss school only if leave of absence has been obtained in advance from the Headmaster in writing. Occasional absences interrupt the work of the whole class as well as that of the individual pupil who misses the lessons.

Daily attendance is regarded as essential because formal teaching continues throughout the entire term. It is the responsibility of each pupil to be punctual every morning for the Form Registration at 8.40 am. Each absence must be covered by a signed and dated parental note which is required by the Form Tutor at 8.40 am on the first morning back at school. Form Tutors have to record details of any pupils who are late or do not hand in notes from their parents to explain absence. Pupils who arrive late must sign in at the School Office. The Government requires a detailed return of all absences.

Discipline

A system of discipline founded on common sense, mutual respect and shared responsibility is fundamental to the provision of an ordered environment in which pupils can feel secure as they seek to develop their personal, social and academic potential. This system of discipline relies on good understanding and co-operation between pupil, school and the family home, complemented by an acknowledgement of the need for a few practical dictates set out as School Rules.

The objective is to promote self-discipline by fostering honesty and consideration for others in a caring environment. Behavioural problems must be addressed effectively so that the pupil can be guided in a productive and positive direction towards a realisation of potential. At all times the best interests of the pupil lie at the heart of all that we do.

The school sets and expects high standards of dress, deportment and conduct. A primary objective is to establish, through the system of discipline a sense of security and belonging which encourages pupils to develop pride in their school. Coupled with this system of discipline is a scale of sanctions which, in consultation with parents, can be invoked to encourage betterment, and to heighten awareness of the pupil's responsibilities to their family, the school community and themselves. Wherever possible such sanctions are built around the requirement that a positive contribution be made for the good of the community. Punishments are not seen as retribution but as a deterrent and an exhortation to do better.

Co-Curricular and Outdoor Education Activities

Pupils are encouraged and expected to take part in co-curricular and outdoor education activities in addition to those associated with school games teams, choirs, bands and orchestras. We offer a large selection of activities which are listed on the school website, together with details of when and where each activity takes place and how pupils can get involved.



School Trips

In many schools these are reserved for more senior pupils. While this is so for German and French exchanges, younger pupils at Stockport Grammar School have many opportunities to participate in educational visits.



The role of the Learning Support Department is to work with pupils, staff, parents and outside agencies to support those with additional needs such as SEND (Special Educational Needs and Disabilities) and EAL (English as an Additional Language). Our priority is to identify pupils with such difficulties as early as possible and to put strategies in place that will enable them to overcome their individual barriers to learning. All teachers have access to a bank of strategies known to be effective with pupils with a range of difficulties, and this resource is regularly updated to reflect recognised best practice.

For those pupils in need of more individualised support, a Pupil Summary is created with input from the pupil, parents, teachers and, where appropriate, outside agencies. The Pupil Summary details the pupil's strengths, interests and ambitions as well as their particular difficulties and gives clear advice as to how subject teachers can best support them. Pupils themselves are also given guidance as to what they need to do to achieve their potential. The Summary gives information about any additional support that is available to the pupil through the Learning Support Department and lists any examination access arrangements that the pupil may have been granted or that may be under consideration.

A very small number of pupils with complex additional needs have an EHCP (Education, Health and Care Plan) which may include local authority-funded support.

Lower School pupils may access additional support in one or more of the following ways:

- In-class or small group support provided by the Maths and English departments during timetabled lessons.
- Literacy Club, which takes place in the first half of the lunch hour one day a week.
- Timetabled Learning Support groups focusing on literacy, numeracy and study skills in Second and Third Year.
- One-off or regular one-to-one appointments with a member of the Learning Support Department.

Mrs Sarah Boardman, Head of Learning Support, also runs a drop-in session on Tuesday mornings from 8 - 8.50am for any pupil who would like to discuss their learning support needs.

Examination access arrangements refer to any special arrangement that is made to enable a pupil to access examinations without being placed at a significant disadvantage compared to their peers. The most common access arrangement is the granting of 25% extra time to compensate for a pupil's very slow reading, writing or processing speed. It is important to understand that in order to avoid conferring an unfair advantage, this and any other arrangement will only be granted to Lower School pupils in end of year exams if the school has clear evidence of need.

For GCSE and beyond, access arrangements can in most cases be granted only if individual assessments have been carried out with a qualified assessor no earlier than the start of the Third Year. Ideally, the assessments should take place in school by our own specialist staff, although in some cases parents choose to pay for a more in-depth assessment with an Educational Psychologist. If parents are considering commissioning such an assessment, it is important that they contact Mrs Boardman at the earliest opportunity so that she can liaise with the assessor in advance of the assessment and ensure that any assessment data can be used by the school in accordance with exam regulations.

The Headmaster and Governors are committed to supporting the learning, attainment and personal development of all pupils at the school including those with additional learning needs.

CURRICULUM



CURRICULUM



Studying Art

The aim of the department is to sustain a lively and creative working environment where high standards are fostered and maintained and pupils are encouraged to recognise the subject as part of a living tradition. Within the dedicated Art building are four studios and a resource area housing a large collection of textbooks, fabric and specialist art materials.

What is Art in the Lower School like?

Art and Design is taught to all pupils in the First and Second Year. At the outset pupils are introduced to a basic Art knowledge by exploring themes including line and shape, pattern, positive and negative shape, tone, form, colour, texture and composition. These are investigated through a variety of dry media, paint, collage, print, textiles or 3D. Importance is placed on understanding Art in the wider context and projects are designed to engender an understanding of cross-curricular and cultural issues as well as providing an introduction to the work of other artists and designers. Sketchbook use is encouraged and is key in helping to collate information and develop ideas and skills in parallel to the work completed in lessons.

The Second Year sets out to develop skills introduced in the First Year. Projects continue to have drawing at their core and a wider understanding of the History of Art is encouraged through further contextual study. Themes explored include letterforms, the portrait and movement. As skills develop, so more in-depth study is encouraged. Midway through the Second Year, pupils choose whether they wish to continue the subject into the Third Year. At this stage the course builds on the foundation skills laid in the first two years and begins to explore a wider range of media and techniques. Projects may follow a pattern of study similar to GCSE and more complexity is evident in the development of ideas through a range of taught processes.

The Third Year allows pupils to consolidate and explore again the formal elements, and to underline the nature of the design process from an initial idea, through development, to realisation. More complex themes, such as perspective, structure and microscopic imagery are explored in both 2D and 3D formats. The end of year theory exam tests the skills and understanding of areas taught throughout The Lower School. The Third Year forms an excellent basis for those who wish to pursue the subject to GCSE and beyond.

An important component of the subject is that ideas can flow between the various disciplines and this forms an integral approach to the teaching. Ideas without a thorough grounding in the discipline of drawing however, will never reach a satisfying conclusion and the department favours the view that drawing, in all its forms, is the fundamental bedrock of any Art education and can be taught!

Gallery visits and trips

It is important that pupils are aware of Art and Design in the wider context and the theoretical element of the study of art, in both historical and contextual terms, is a major part of the department's teaching. Similarly, if a project demands it, pupils may find that they are taken outside the school grounds to draw and gather visual information from source in the development of their classwork.

Clubs and Activities

The department runs a dedicated Art Club after school on one day each week. Here, pupils from across the year groups are able to work on projects linked to their classwork or on more specialist pieces that may introduce them to skills including batik, stained glass and ceramics. One area of work undertaken by those in the club involves the making of backdrops and props for use in the various school productions that take place throughout the year and this is a splendid way for pupils to get involved in the backstage aspects of these major productions. Pupils may also enjoy the weekly Knitting Club (all years) or the Third Year Textiles Club.



Studying Biology

We introduce Lower School pupils to the world of living organisms with a view to balancing subject knowledge with the development of investigative skills. Opportunities to design, carry out and evaluate practical experiments are plentiful. These are an integral part of our science teaching and include the use of standard laboratory apparatus as well as more subject-specific equipment such as microscopes. Our approach to curriculum-building is to acknowledge the general philosophy of the National Curriculum yet to also delve further.

A variety of scientific skills are introduced and developed during the first three years. Principally, these revolve around perfecting practical skills in experiments: measurement and observation, experimental design and the identification and control of variables. In addition, pupils must be able to interpret correctly the results their experiments have yielded. Hence we concentrate on presenting, analysing and interpreting data. Present throughout is the message of safe work practices in the laboratory.

Biology in First Year

Subject areas include: Characteristics of Life; Microscopes and Cells; Tissues, Organs, Systems; Human Reproduction; Inheritance and Selection; Forensic Science. Skill areas developed through the year include safety in the laboratory, accurate measurement and scaling, and the construction of graphs. Pupils develop skills in preparing microscope slides and the correct use of microscopes.

Biology in Second Year

Subject areas include: The Variety of Living Things (including Classification); Infectious Disease and Defence Against Disease; Drugs Education (considering both medicinal and recreational drugs); Ecology (including food chains and food webs); Predator - Prey Relationships and Decay and the Carbon Cycle. We also study Muscles, Movement and Exercise.

Biology in Third Year

We cover basic Biochemistry; Enzymes; Nutrition; Digestion; Breathing and Gas Exchange and Respiration. The principles of Diffusion, Osmosis and Active Transport are taught in context during the year. These areas of study hone pupils' grasp of data analysis and interpretation, control of variables and the construction and interpretation of graphs.

Clubs and Activities

Animal Club is principally orientated towards Lower School pupils. They are taught how to look after the animals in a safe and correct manner and we endeavour to foster responsible behaviour when handling and caring for animals. If parents agree, pupils can put their name down to take one of the animals home during the holidays.



Studying Chemistry

We instil in Lower School pupils an understanding of the basic principles and experimental techniques that underpin Chemistry, whilst at the same time engaging their interest and attempting to relate topics to their everyday experiences. The course is designed around practical work with emphasis placed on problem solving and investigative work. We aim to incorporate ICT into Chemistry teaching, not only in terms of simulating and modelling complex concepts but also in terms of experimental work. In this way we underline the highly technological nature of Chemistry.

Chemistry in First Year

The year starts with an introduction to chemical science where the pupils become equipped with the measuring, observation and recording skills that they will need for success in the future. Safe practice is key and the pupils learn how to conduct experiments with care. The differences between physical and chemical changes are studied in detail with the opportunity to use equipment and chemicals not available at KS2. There follows an introduction to the periodic table with the concept of elements and compounds and the idea of using chemical symbols being introduced. We then move into separating different mixtures and the pupils enjoy some larger scale experiments. Throughout the year we build on the ideas of chemical equations in the form of word equations.

Chemistry in Second Year

During the Second Year we complete the Chemistry component of the KS3 National Curriculum. Initially this involves expanding the work done in First Year on the periodic table and developing ideas of elements, compounds and mixtures. This enables us to begin looking at the formula of simple compounds which leads into simple chemical reactions and builds up to writing word and symbol equations. In the second half of the year we work on the environmental aspects of Chemistry, looking at rocks, the rock cycle and the environmental impact of Chemistry.

Chemistry in Third Year

During the Third Year, we work towards a full understanding of those concepts which will prove vital at GCSE level. This includes the atomic structure of the first twenty elements on the periodic table; the formation of ions and how we use this information to determine the formula of simple ionic compounds. In addition, we extend the work on symbol equations through a comprehensive series of practical experiments which analyse patterns of reactivity by examining the reactions of metals and metal compounds. In this way, our pupils are ensured a complete understanding of the fundamentals of Chemistry before they commence the GCSE course.

Clubs and Activities

A Chemistry Club runs for First Years, enabling pupils to experience aspects of practical Chemistry that are not covered through the general curriculum. A Chemistry Clinic is run by the department on a weekly basis by pupils taking A Level Chemistry, with supervision from Chemistry teaching staff. This provides a supportive environment where pupils can receive extra help or guidance. Pupils in the Lower School are encouraged to perform their own research on a project they can choose and may be awarded CREST awards for their work.



Studying Classics

The Classics department teaches Latin and Classical Civilisation throughout the school. The school believes strongly in the value of Latin, not only as an intellectual exercise for the most able pupils, but also as a window into one of the most fascinating and influential ancient cultures. Classical Civilisation is very popular in the First Year and again at GCSE and A Level. Increasing numbers of pupils are opting to continue with the subject at university, either with or without Latin.

First Year – Classics

We examine the often shocking behaviour of the Greek Gods and the reasons why the Greeks should have worshipped such a rotten bunch! We also study some of the best Greek myths and legends: Perseus, Theseus and Heracles among others. Pupils then progress to the Trojan War where we consider why thousands of men fought and died over one woman until a Greek trick brought down the city of Troy. We follow the story through looking at heroes such as Achilles, Hector and Paris. Also relevant is the Greek society which produced these fascinating stories. We look at Greek athletics, art, religion, drama and the original Olympic Games. The information about and enthusiasm for the Classical World gained in the First Year can then be revisited further up the school by taking Classical Civilisation at GCSE and A Level.

Second Year – Latin

Pupils follow the Cambridge Latin Course which is set in Pompeii in the days before the eruption of Vesuvius. As we find out about the life of a Pompeian family, we learn how to translate the Latin language using a methodical and logical approach designed to build up the pupils' appreciation of grammar (Latin and English). As Pompeii is such a fascinating site, we spend time discovering how the population lived, worked and, eventually, died. Latin then becomes one of the language options which pupils can take at GCSE.

Third Year – Latin

In the Third Year we seek to boost pupils' knowledge of vocabulary and grammar, and thus to consolidate and expand their approach to translation. The Third Year gives the pupils a solid base from which to begin GCSE in the Fourth Year. We continue with a balanced curriculum which focuses both on the language and on the society which spoke and wrote that language. The pupils will pick up enough information over the course of this year so that they can make a choice on whether to take Latin, Classical Civilisation or both subjects at GCSE.

Trips, Clubs and Activities

There are a number of clubs offered by the Classics department. First and Second Years can join Classics Club which gives pupils an opportunity to explore the ancient world through a variety of craft and other educational projects, such as animating *Homer's Odyssey* in Lego! This year, a cast of Lower Sixth Formers put on a production of Euripides' *Medea*. Suitable pupils in the Third Year are offered the chance to take Ancient Greek GCSE in the Fourth Year, after a course of extra-curricular lessons.

In 2016, the department took a party of 50 pupils on a tour of Greece, visiting Athens, Delphi and Olympia amongst other sites. This trip will run again in 2020. The Sixth Form have been on trips to the British Museum in London, Chatsworth House in Derbyshire and the Ashmolean Museum in Oxford. Regular theatre trips and museum visits are also offered. We will be running a trip to Rome and the Bay of Naples for pupils from the Fourth Year to the Upper Sixth in 2018.



Studying Design Technology

Design Technology is based in a modern purpose built studio which allows pupils to take part in a wide range of technological activities. We encourage Lower School pupils to take a broad view of the issues in Design Technology, to develop their capacity to design and manufacture quality products, and to appreciate the complex relations between creativity, materials technology, manufacturing processes and marketing. Pupils are taught to combine creative and practical skills with knowledge and understanding in order to design and manufacture products in quantity.

They will acquire and apply knowledge, skills and understanding through:

- analysing and evaluating products and processes
- engaging in focussed tasks to develop and demonstrate techniques
- engaging in strategies for developing ideas, planning and producing products
- considering how past and present design and technology, relevant to a designing and making context, affects society
- recognising the moral, cultural and environmental issues inherent in design and technology

The course also gives pupils the opportunity to present their work to other students using Computer Aided Design, Desktop Publishing and Multimedia Presentation Software. All pupils follow a course that covers Product Design and Textiles in the First Year and Product Design in the Second Year. They can opt to study either of these options in the Third Year.

Design Technology in First Year

In Product Design pupils start the course by learning about the basic classification of materials and then take part in a Design and Make project in which they construct a hanging mobile from softwood and MDF. This teaches them to use basic hand tools and also some simple machine tools such as pillar drills, fret saws and vertical belt sanders. In Textiles pupils will be taught about fabric classification and how products are constructed. They will take part in a Design and Make project in which they will construct a cushion. They will be introduced to a variety of techniques for applying surface patterns to textiles such as block printing and applique and how these can be applied to commercial products. This project teaches them to use basic hand processes and sewing machines.

Design Technology in Second Year

In their Second Year, pupils cover a range of jewellery techniques: casting, enamelling and etching. They then complete a Design and Make project to produce a gift for a local museum shop.

Design Technology in Third Year

All pupils studying a Design Technology option in the Third Year will study a common theory course covering Materials Theory, Design History and Sustainability and the Environment. If pupils opt to study Product Design in Third Year, they are introduced to a wide range of manufacturing techniques such as casting and brazing. They gain further experience in Computer Aided Design and are taught how to use it to produce components on a computer controlled laser cutter. They design and make a picture frame and a clock based on their research of the Memphis design movement.

In Textiles pupils will learn how to design products using pattern draughting techniques and use these in the production of a sports bag. They will use a computer controlled embroidery machine to decorate their final product.



Studying English

The English department aims to provide a happy, stimulating environment, in which students feel valued as individuals and are encouraged to develop a love of language and literature. A range of classic texts, mixed with award-winning new novels, plays and poems are studied, as well as a variety of non-fiction and media texts.

Lower School Curriculum

The curriculum aims to develop the following skills in each pupil:

- The ability to read fluently and with confident understanding.
- A strong understanding of the grammar of English.
- The ability to respond in a sophisticated way to all manner of literary and non-literary texts.
- The ability to write with imagination and flair in a variety of ways; to express feelings and experiences, to persuade, to discuss and to analyse.
- The ability to communicate verbally with confidence in both formal and informal contexts.

In the Lower School, we aim to allow pupils the freedom to explore the English Language in all of its guises, whilst thoroughly preparing and developing the skills that they will need to flourish in the Middle School. As such, our Lower School assessment objectives are mapped closely to those required for GCSE English Language and Literature on the new curriculum.

The department aims to teach in units of work which cover several strands at a time. One unit might, for example, involve the close reading and study of a text, produce writing in a variety of forms, involve debate, discussion or dramatic role-play and, as an integral part, include the teaching of specific technical skills. Each unit, however, will have a central assessment focus that pupils will track their progress against, in order for them to take ownership of their own development in the subject.

The demands made by units of work increase in terms of difficulty and sophistication as pupils progress through the school, as reflected by our bespoke Lower School mark schemes. All pupils are encouraged to develop their word-processing, desktop publishing and research in order to produce high-quality English assignments and presentations and to hone universal skills that are relevant to both academic study and the broader professional world. Similarly, self-assessment, reflection and refinement, and independent study skills are an expectation throughout the Lower School.

In First and Second Year, specific attention is paid to the development of independent and enthusiastic wide reading, through schemes such as Book Buzz, Poetry by Heart, the Lower School Book Club, the Non-Fiction Book Club, and many more.

By the Third Year, pupils will be engaging with demanding, canonical authors (Shakespeare, Golding, Steinbeck, Orwell - to name a few) and will be stretching their critical faculties far beyond the expectations of the National Curriculum, proving the best possible preparation for Key Stage Four.

The Department also offers a range of opportunities for students outside the classroom, including theatre trips, creative writing clubs, poetry contests and much, much more.



Food Technology

Food preparation skills and healthy food choices are vital life skills in today's society. We aim to provide a thorough grounding in both the theoretical and practical aspects of Food Technology. Areas studied include nutrition; the wise selection of foods in order to promote good health; food safety and hygiene. Our lessons are predominantly practical, and combine demonstrations, making and tasting in order to develop pupils' abilities in food preparation, general organisation and confidence.

Pupils make a variety of dishes, ranging from the simple to the more complex, including scones, bolognese sauce, apple crumble, lasagne, swiss roll and pizza. All our recipes are available to download on the school website.

Food Technology in First Year

Pupils develop a basic understanding of the nutritional requirements of a healthy diet through a combination of theory and practical sessions. At the end of the course, pupils are encouraged to develop their own scone recipe and to participate in the 1 Star Food Award.

Food Technology in Second Year

The course builds on First Year work by focussing on the importance of proper nutrition in a healthy lifestyle. Pupil tasks include analysing convenience food products and studying various types of staple foods, such as rice, pasta and bread. This work is supported by instruction on a range of more advanced food preparation techniques. The course culminates in Second Years developing and making a pasta sauce recipe for the 2 Star Food Award.

Food Technology in Third Year

Pupils who opt for Food Technology extend their skills and knowledge in preparation for further study at GCSE. The emphasis is again on food hygiene and safety, nutrition and healthy eating. For their 3 Star Food Award pupils undertake a multicultural design project.

Clubs and Activities

Creative Cuisine is our fortnightly club for First Years which focuses on fun sweet and savoury dishes. Our annual Masterchef competition is very popular, especially amongst First Year pupils. During the competition, pupils race against the clock to make their favourite dishes which are judged by a visiting chef. We also organise demonstrations and visiting speakers to share their knowledge and skills. Cake Decorating Club is offered to Third Year pupils and Christmas Cake Club is open to all pupils.

Food Preparation and Nutrition is an option if pupils wish to study the subject at GCSE.



Studying French

We aim to introduce pupils to the French language and foster a love of its culture. The ability to communicate successfully in a foreign language makes pupils more confident in general and better at thinking on their feet. We are a lively, forward-thinking department and we aim to provide lessons which are fun, yet stimulating and challenging.

We are aware that our pupils have different experiences of the language. For this reason, we assume no prior knowledge. In our experience, pupils with little exposure to French have caught up with those who have learnt some by Half Term in the First Year. Whether you have done a little or none makes no difference to your future prospects in French - enthusiasm and a willingness to have a go are more important.

In a fortnightly cycle, pupils will have five hours of French lessons in which they experience a variety of teaching methods. Once per cycle, each class benefits from the use of a multimedia language laboratory where pupils listen to recordings, speak to each other in French and record their own voices to analyse and improve their pronunciation. We encourage our pupils to interact with their teacher and each other in the language.

French in First Year (five lessons per cycle)

In the First Year, we cover topics including descriptions of yourself, family and pets, leisure activities, school, food and restaurants, daily routine, home town and directions. Topics are used to explore vocabulary and grammar: in the First Year we cover the present tense of all regular verbs and some important irregular verbs, the perfect tense and how to talk about the future. The notion of gender, articles, adjectives, possessive adjectives and prepositions are also studied.

French in Second Year (three lessons per cycle and three lessons of German)

In Second Year, we consolidate and extend our knowledge of some of the important topics covered last year e.g. school, school rules, jobs and future plans in general and leisure pursuits. At this stage, the future tense is introduced. Another new area of grammar is the use of negatives. We also study the city of Paris and learn about using public transport in France.

French in Third Year (three lessons per cycle and three lessons of German, Spanish or Latin. Pupils opt for at least two languages but they can do three if they wish)

In the Third Year we aim to revise talking about the past, present and future, whilst enriching our vocabulary on some familiar and some unfamiliar topics. Amongst other things, we look at the description of a holiday in the past tense, using both perfect and imperfect tenses. We also cover topics such as relationships with family and friends. We introduce IGCSE-style speaking and writing tasks at this stage.

Trips, Clubs and Activities

First Year pupils usually have the opportunity to travel to France at Easter and take part in a week of activities. We offer a French Exchange trip to Paris for Fourth Year pupils and our Sixth Form students have the opportunity to undertake a period of work experience in Nantes.



Studying Geography

Geography aims to stimulate pupils' interest in their surroundings, providing a curriculum which prompts them to relate to the environment at all levels: their local area, the rest of the United Kingdom, the European Union and the wider world. A broad range of skills is developed alongside a concern for environmental issues and a sense of responsibility for the earth. The syllabus encourages an enquiring approach to learning, whereby pupils involve themselves in investigative work and pose their own questions.

The department has an established fieldwork tradition, with trips venturing as far afield as Iceland, Italy, USA and the Azores in 2018. The department is equipped with five dedicated classrooms which are well resourced.

Geography in First Year

Pupils begin by considering the question 'What is Geography?' before embarking on an exploration of the physical and human geography of the UK. They then study core topics - UK Geography, Settlement, Map Skills and Coasts.

Geography in Second Year

The course begins with a study of Population, exploring how and why global population has changed so much over the last century and the implications that these changes have for both today and the future. This is then followed by a unit exploring Weather and Climate where the pupils are introduced to key elements of the weather and climate in relation to the UK. They also consider elements of 'wild weather' including tropical storms, flooding and tectonics. The pupils will finish the year studying tourism and National Parks, which culminates in a day trip to the Peak District to apply and experience what they have learned.

Geography in Third Year

Third Year pupils start by studying plate tectonics and are introduced to the powerful forces that have shaped the continents and the world's mountain ranges. Attention is then moved to understanding the causes of volcanoes and earthquakes and how people respond to them. Pupils start the Edexcel A GCSE course in September and study Global Development, UK Landscapes and Rivers. Pupils have the chance to study and understand the UK's landscape and the forces that have shaped it in greater detail. They begin with a brief explanation of the UK's geology before studying the role that rivers play in shaping the UK.

Clubs and Activities

A Level Geographers are encouraged to join the local branch of the Geographical Association and regularly attend lectures at Manchester University. The school is also ably represented by a team at the local round of the GA Worldwide Quiz. Pupils can join the Lower School Geography in Art Club, which aims to investigate geographical themes and landscapes through different forms of art.



Studying History

History in the Lower School spans the centuries from medieval England to twentieth century Europe. Our goal is to equip pupils with the tools they need to become competent historians. Hence they are immediately introduced to the most essential skills: chronology and the evaluation of evidence and sources.

History in First Year

The course begins with an introduction to the nature of evidence, both primary and secondary, and introduces pupils to the importance of studying History and to the role of the historian. Pupils study Medieval Life in England: the events of 1066, such as the Battles of Hastings and Stamford Bridge, followed by the development of Norman England. Castles, the Feudal System, the Black Death, Peasants' Revolt and role of the medieval church are all taken into consideration. The final term focuses on the Hundred Years War, the Renaissance, the Crusades and events leading up to the Tudor period.

History in Second Year

Pupils in Second Year follow the history of the United Kingdom from the sixteenth to the eighteenth centuries. We concentrate at first upon the political development of the country, examining changes in the power of crown and parliament from the Reformation to the execution of Charles I. Elements of social history are also studied, including witchcraft, plague and fire. The course then moves forward to the Industrial Revolution, the British Empire and the Slave Trade. Towards the end of the year, the emphasis is on local history.

History in Third Year

We begin Third Year with an analysis of the First World War, including causes, course and social impact. The Alliance system, trench life and warfare, the Middle Eastern campaign and the legacy of the war are among events studied. Subsequently, our attention turns to the causes and events of the Second World War. We take a look at key turning points of the War, including Dunkirk, the Battle of Britain, Stalingrad and D-Day. We also look at the Home Front and study women in the war and evacuation. An introduction to the history of the Soviet Union is also undertaken. At all times pupils are encouraged to find local and family links with the century's conflicts. Our course ends in the summer with two in-depth studies: the causes and events of the Holocaust and the Post-war world. In this unit, we take the opportunity to study aspects of the Cold War, which provides a valuable foundation for the IGCSE course.

Trips

Pupils from the Lower School are encouraged to participate in trips organised by the department. Third Year pupils regularly participate in our trips to the Battlefields in Belgium and France which take place each October Half Term. A major trip takes place every Easter. Destinations vary, having included the USA, Russia and Germany and Central Europe. Trips for younger pupils in First and Second Year are mainly excursions to local sites of interest such as castles and museums.



Studying Computer Science

The aim of the department is to equip Lower School pupils with the skills they need in order to be competent users of ICT systems as well as being able to understand how structured-programming is used to control and automate the technology around us. Computational thinking is a strand that runs throughout the Lower School syllabus and we encourage pupils to develop their higher level thinking skills when solving problems. This ability to choose, apply and justify will make them autonomous users of ICT, ready for the computer-rich world in which we live. Should they wish to pursue an interest in programming, the Computer Science curriculum will provide the building blocks to write code in a variety of languages and contexts.

Computer Science in First Year

First Year pupils are introduced to the network and taught how to use the facilities effectively. They learn how to organise, name, move and delete files and folders in a way that keeps their user area structured. The skills that are developed in First Year include using cloud-based systems for collaboration, research and storage; communicating and sharing information; creating ICT documents using a variety of software; online safety, and computer programming.

Computer Science in Second Year

In Second Year, pupils build upon their core skills and are expected to continue the development of their use of cloud storage, communication and file management. The theme of Computer Science is stronger in this year with several units having a programming base. Pupils will learn how to write a mobile app and how to create an interactive web page. We look at the ethics and legislation that goes hand in hand with the daily use of technology and research the next generation of computer gadgets. Pupils are encouraged to continue learning beyond the classroom and apply their learnt skills across the curriculum, thus embedding ICT into their everyday life at school. During this year, pupils will decide whether they wish to continue with Computer Science.

Computer Science in Third Year

As an option subject in the Third Year, Computer Science is heavily geared towards the development of programming skills. There are three lessons per cycle with groups being smaller than the previous two years. Pupils choosing this should have demonstrated good logical and problem solving ability in the Second Year. They will also need to be proficient at Maths as much of the programming done relies on a strong understanding of mathematical formulae and algorithms. Over 50% of this year is taken up with programming and is the foundation of the GCSE requirement should the pupil want to continue. There are also units on algorithms, cryptography, technological waste and SQL databases. Pupils would be expected to develop their interest in Computer Science and programming outside the classroom.

Computer Science Facilities and Clubs

The computer rooms are open at various times during the day to allow pupils to use the facilities. The Computer Science department also runs an Animation Club that teaches pupils to use computer animation software such as Adobe Flash as well as using modelling clay and stop-frame animation software. Computer Club allows pupils to develop an understanding of games and application programming.



We aim to:

Enable pupils to develop independence of thought and an understanding of themselves as individuals, members of communities and global citizens. The course is comprised of an eclectic mix of PSHE, Citizenship (local/national/international) and Current Affairs which is aimed at providing pupils with a fast paced, contemporary course that offers something for everyone.

Students are engaged in the study of a diverse range of topics from health and safety to religion and politics, and all pupils are provided with a comprehensive examination of some of the most important issues for young people today.

The department utilises a variety of software, media and resources to make lessons interesting and interactive. All teaching rooms are equipped with an interactive white board (IWB) and we have a departmental computer suite. Invariably, teachers encourage a good deal of pupil input, with discussion, formal debate and group presentation forming a significant proportion of lesson time. Pupils are encouraged to develop their rhetorical skills and think in a manner that involves empathy and reflection. The sensitive nature of some of the work is recognised by members of staff and great care is taken to discuss issues sympathetically.

What is Life Studies in the Lower School like?

First Year

In the First Year, we cover topics including an introduction to secondary school, personal identity, beliefs and values, world religions, health and safety and rights and responsibilities. These topics are designed to offer a comprehensive introduction to the subject and offer pupils a flavour of what they will experience in their Life Studies lessons. Pupils are also offered support through the curriculum to help them adjust to the transition from primary to secondary school.

Second Year

In the Second Year, we consider issues pertaining to conflict and politics, political systems in the UK, the impact of contemporary events on prejudice and discrimination, and stewardship. The course aims to provide pupils with an understanding of the context in which they live today and also draw their attention to the challenges raised by politics and the importance of promoting fundamental British Values.

Third Year

In the Third Year pupils examine a variety of ethical issues, such as moral dilemmas and personal responsibility. Pupils are provided with the opportunity to engage in debate and develop their critical thinking skills through engaging in philosophical enquiries. Pupils also continue their study of PSHCE, focussing on sex and relationships, personal finance, drugs education and creating a Utopian society as their final Key Stage 3 project.

What happens further up the school?

Fourth and Fifth Year Life Studies lessons take place once a week and utilise debate, discussion and group work to explore modern day topics and current events. The course aims to give pupils the opportunity to gain essential life skills and investigate everyday adolescent issues. Some examples of the topics that will be covered over the two year period are Sexual Relationship Education (SRE), personal finance, discrimination and racism, work experience, driver's education, careers and basic first aid.

A complete overview of our Key Stage 3 and 4 programme is available in the Pastoral section of the school website.



Studying Mathematics

Our aim is for all pupils to find Mathematics challenging and rewarding. A creative and confident approach to the subject is encouraged and pupils are asked to work both independently and in small groups, communicating ideas using appropriate mathematical language and symbolism. Each pupil will have a notebook where examples and explanations are recorded for reference and revision purposes. They will also have a text book as well as a class work book in which exercises are completed. Three pieces of homework are set each ten day cycle and they should take up to half an hour each to complete. Some of these tasks may be set online, making use of the website www.MyMaths.co.uk. All pupils are provided with individual login details and are encouraged to look at topics in advance or to consolidate understanding following what has been covered in class.

Pupils are regularly assessed in Mathematics, from which test scores and focus areas for improvement are recorded in pupil planners. This means every pupil has a record of their progress and what they can do to improve their learning. Follow up sheets to tests are given to pupils as required and are also available on SGSONline (a shared area that pupils can access from home). One teacher in the Mathematics department has responsibility for Numeracy Support to ensure that pupils who find Mathematics particularly challenging are helped to make maximum progress. Copies of the full syllabuses are available on the shared area of the school network.

Mathematics in First Year

The First Year is designed to revise, and then develop, arithmetic theory and to introduce algebra and geometry. Investigational and problem solving work is used to develop independent thinking and stretch all pupils. Great emphasis is placed on correct and logical setting out of solutions showing all relevant working. Topics include number patterns, factors and indices, equations, statistics, probability, formulae, parallel lines, co-ordinates and volumes.

Mathematics in Second Year

Mathematics becomes more demanding as the Second Year progresses. Greater importance is placed on the ability to explain how answers are produced rather than what the answers actually are. Much time is spent on the clear, concise and logical presentation of solutions. We begin to use calculators, the specific make and model being recommended by the department. New topics for the Second Year include transformations, circumference and area of circle, polygons, percentages, Pythagoras' Theorem and straight line graphs.

Mathematics in Third Year

Whilst all ability groups cover the same syllabus, they vary in the pace at which new theory is introduced and absorbed. We place pupils in sets to enable each individual to achieve their full potential. This judgement is based on performance in lessons, tests and exams throughout the Second Year. At the end of the Third Year, all pupils are re-grouped into new sets, allowing us to reduce class size for the GCSE course. The Third Year course introduces trigonometry, quadratic equations, inequalities and regions, ratio and proportion, loci, constructions, simultaneous equations and algebraic fractions.

Clubs and Activities

The department runs a weekly Puzzle Club where the lighter side of Maths can be explored, including mazes, games and making 3D models. Each year our most able pupils are entered for the Mathematics Challenges which include the *Junior Maths Challenge* for First and Second Year pupils and the *Intermediate Maths Challenge* for highly able Third Years. We also run a First Year inter-form competition. The department facilitates support sessions at lunchtime and pupils are encouraged to see their Maths teacher if they need extra help.



Studying Music

The constituent parts of the National Curriculum for this age group are Listening, Appraising, Composing and Performing. These form key elements within our musical curriculum. Composition and performance tasks are included throughout the curriculum and are either individual, paired or in groups, combining classroom percussion, keyboards and work on computer programmes. Our aim is to stretch those pupils with existing experience, whilst also providing for and enthusing those with a more limited musical background. In the Second Year, classes are divided into two groups. Music classrooms are well equipped with a substantial range of percussion instruments, keyboards and 40 computers, complete with *Sibelius 7*, *Cubasis* and *Audacity* software for score writing, sequencing, electronic composition and research.

Music in First Year

In the First Year, every pupil is given the opportunity to try a number of orchestral instruments as part of their classroom Music curriculum. Much time is spent enabling pupils to learn instruments to which they are suited and extending the practical and theoretical skills of those who already play instruments. All pupils study pitch and rhythm notation and develop their keyboard playing skills throughout the year. In addition pupils study styles such as stomp/junk percussion, Minimalism, African drumming and Indonesian Gamelan Music. Emphasis is also placed on whole-class singing.

Music in Second Year

Musical knowledge is extended in the Second Year with a study of Major, Minor, Modal, Chromatic, Whole-Tone and Atonal Tonality; Introduction to Form and Structure in Music - Binary Form, Ternary Form, Rondo Form; Theme and Variations, Ground Bass, Strophic Form and Verse-Chorus. Pupils develop their composing skills through keyboard melody and chord-writing tasks and work with *Sibelius 7* software. In the Spring Term pupils study World Music and fusion styles such as Samba and Bhangra. Pupils also study Blues and Rock n Roll. The year concludes with an in-depth composition project based on Ground Bass models such as Pachelbel's *Canon* and Michael Nyman's *Time Lapse*.

Music in Third Year

Third Year pupils spend the year concentrating on all sorts of different musical styles from the 20th and 21st centuries. This involves studying popular music, jazz and reggae with related composition and performance tasks on acoustic instruments, keyboards and *Sibelius 7* software. Pupils study song-writing as well as classical topics such as impressionism, expressionism, serialism, minimalism, experimental music and electronic music including links with other art forms. Pupils compose electronic pieces using *Audacity* software and also study Film Music, composing their own 'hero' and 'villain' themes. The year finishes with a study of modern dance music styles with opportunities for pupils to sequence their own dance tracks using *Garageband* software.

Extra-Curricular Music

Opportunities to perform are extensive. We have numerous bands, orchestras, choirs and chamber-music groups, which perform in prestigious venues such as Manchester Cathedral, the Royal Northern College of Music and the Bridgewater Hall. Recent tours have taken us to venues such as Keswick's Theatre by the Lake and the Cathedrals of Brussels, Bruges, Ghent, Salzburg and St. Mark's Venice. SGS Chamber Choir has performed several times on the *BBC Radio 4 Daily Service* programme. Our performance schedule includes after-school recitals; a competitive annual Music Festival; several whole school concerts and a tradition of music and drama collaborations including recent productions of *Les Misérables*, *Oliver!*, *Godspell* and *Annie*. Music Bursaries are available which offer free lessons for children willing to learn the more unusual instruments. Commendations and colours are awarded in recognition of pupils' commitment to their ensemble and their sense of team work.



Studying Physical Education

The PE department seeks to promote enjoyment and a sense of achievement at every sporting level, encouraging good health and fitness but also developing social awareness and values through interaction with others. We wish to educate for leisure and encourage participation in extra-curricular activities. Our eight specialist members of staff are supported by dedicated sports coaches and a large number of academic staff who run school teams. The school boasts excellent sports facilities including a sports centre complete with sports hall, fitness suite, squash courts and 25m swimming pool. In addition, there are extensive fields (both on and off-site), a fully equipped gymnasium, an all-weather pitch, netball courts, athletics jumping areas and cricket nets.

Physical Education in the Lower School

In the First Year, all pupils have two hours of gymnasium-based physical education, two hours of games and one hour of swimming within the ten day cycle. In the Second and Third Years, all pupils have two hours of gymnasium-based physical education and two hours of games within the ten day cycle. The main winter games for boys are rugby and football, and for girls are hockey and netball. In the summer, boys concentrate on cricket and athletics, whilst girls focus their attention on tennis, athletics and rounders. The physical education curriculum is diverse with activities including: athletics, ball skills, badminton, basketball, cross-country, dance, hockey, fitness testing, football, gymnastics, health related fitness, squash, swimming and volleyball.

Extra-Curricular Physical Education

The inter-house sports competition has a central role within the school. Incorporating twenty diverse activities, it provides a very important level of competitive representative experience for large numbers of pupils. Sports clubs are organised in a variety of activities including dance, archery, fitness, fencing, climbing, basketball, squash, weight-lifting, leisure swimming, badminton and table tennis. These are not concerned with producing school teams as such, but rather to encourage widespread participation and enjoyment.

The school fields a large number of teams, all of which have an excellent reputation, gaining success in regional and national competitions. Sports represented are girls' hockey, netball and tennis and boys' football, rugby, basketball and cricket. Both boys and girls can take part in the school teams for cross-country, swimming and athletics. Individuals frequently gain representative honours with both county and national teams. School sports tours have included: Holland and Spain (Hockey); Switzerland (Netball); South Africa, Italy, Portugal and Canada (Rugby); Australia and Sri Lanka (Cricket).

Prizes

School sports colours and commendations are awarded to individuals who have made an exceptional contribution to their respective sport. Pupils receive a certificate, a colours badge and may purchase a colours tie from the bookshop. Each of the major school sports also has one trophy which is awarded either to the individual who has contributed most to that sport or to the sport's most promising player. The most prestigious trophies are the Girls' Sports Rose Bowl and the Boys' Games Trophy which are awarded to the outstanding Sportswoman and Sportsman of the Year.



Studying Physics

Our aim is to encourage a genuine interest in, enthusiasm for and enjoyment of Physics, as well as a sound knowledge and understanding of the fundamental concepts. Pupils learn primarily through experimental work. Written work, though important, is minimised with the use of printed gap-fill notes, allowing more time for practical activities. However there are also some pieces of extended writing. Class discussions are encouraged and topics are chosen to inspire questions.

The three-year course covers a range of Physics topics which will form a solid base for GCSE work or simply a useful cross section of the subject for a future in a world which is ever more dependent on Physics and its applications.

Physics in First Year

A brief introduction to simple measurement, including a range of SI units, is followed by a topic on basic measurement and experimental skills. Subsequently, we experiment with light, gaining an understanding of rectilinear propagation, reflection and shadows, which leads to the study of eclipses. The Earth and Space module explains how the movement of the earth relative to the sun accounts for day, night and the seasons. It also includes some work on the moon and asks what is beyond the solar system. In relation to this part of the course, pupils undertake an individual research project in an area of personal interest to them. This advances their knowledge and research skills and familiarises them with the school library. We also have a planetarium day at the school in which all First Years have an hour learning about Astronomy in an exciting new way. Other topics studied in First Year include energy (including the study of energy in food), forces and magnetism.

Physics in Second Year

Pupils are introduced to the theories of atomic structure and states of matter leading into work on density and pressure. Pupils explore expansion caused by heating and investigate how heat is transferred by conduction, convection and radiation. Concepts of static electricity and circuits are explored through practical activities. Pupils investigate how sound is produced, how it travels and how the ear works. Building on the work of the First Year, pupils learn more about light which develops into work on pinhole cameras and colour. We further develop pupils' independent research skills with a research project about an invention which is presented as a newspaper front page.

Physics in Third Year

The pupils learn Physics in increasing depth as the course progresses and are ready to learn about properties of waves and more phenomena of light such as refraction and total internal reflection. Building on previous knowledge, pupils learn how electricity is used safely in the home, which includes work on fuses, the 3 pin plug and alternating current. We introduce pupils to basic electronic circuits. Pupils have an introduction to nuclear physics and radioactivity. Finally, we return to forces looking at motion and motion graphs, Newton's Laws, weight and apparent weight, Hooke's Law and moments. The independent research project this year focuses on famous physicists and pupils design wall displays about their chosen subject.

Clubs and Activities

The department runs an Astronomy GCSE course as an extra-curricular activity. There is one intake every two years so pupils start in either the Second or Third Year. It is intended to stretch the highest achieving pupils and there is a lot of scope for the pupils to develop independent learning and research skills. The topics covered include the moon, the sun, planetary systems, observation and evolution of stars, galaxies and cosmology.





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