

135 OPTIONS CHOICES For year 9 (135) starting September 2023

Dear 12s (Year 8) Parents and Pupils,

This booklet gives you information about the option subjects that we offer pupils in the 13s (Year 9) and I hope you find it useful. 13s pupils will continue to enjoy a broad curriculum, but begin to shape their choices for the two year GCSE courses that begin in the 14s (Year 10) in September 2024.

The core GCSE subjects of English, Mathematics, Biology, Chemistry and Physics will continue to be taught alongside Geography, History, Religious Studies, Physical Education, Sport and Citizenship. In addition, pupils must choose **one** Modern Foreign Language from Block A and **two or three** options (see explanation below) from Block B.

Block A	Block B
(3 lessons per week)	(1 lesson per week)
French	Ancient Greek
Spanish	Art and Design
Italian	Business
	Computing
	Classical Civilisation
	Drama
	Film Studies
	Latin
	Media Studies
	Music
	3 Dimensional Design*
	Sport Science
	French (2 lessons a week)

In order to assist you, please note the following;

Modern Foreign Languages

All 13s are required to study one Modern Foreign Language listed in Block A.

If a pupil wishes to study two languages, either Spanish or Italian alongside French, they must choose either Spanish or Italian from Block A and French from Block B. French, unlike all other options in Block B, requires two lessons per week rather than one. This leaves a choice of only one other option apart from French in Block B.

Studying two Modern Foreign Languages to GCSE is only appropriate for strong, dedicated and highly committed linguists and it is important that pupils who are interested in pursuing this option discuss this first with Mme Montet, Head of Modern Foreign Languages (smontet@harrodian.com). Please also note that beginner sets in Spanish and Italian will not be offered, therefore pupils must have studied these languages in the 11s or 12s in order to pursue them in the 13s. Finally, if French is dropped in favour of either Spanish or Italian, it will not be possible to restart it at GCSE in the 14s and 15s.

Other option subjects

Pupils who do not wish to choose a second Modern Foreign Language choose three options in Block B.

In order to provide continuity, pupils considering taking Latin to GCSE are required to continue the subject in the 13s and must therefore choose it in Block B. If pupils are considering taking Computing at GCSE, we advise pupils study this option in the 13s unless they undertake additional studies outside school that develop the requisite skills for GCSE in the 14s/15s.

Apart from Latin, it is not a requirement that pupils should study any of the remaining options in Block B in order to pursue them at GCSE level. These single lessons are designed to give pupils a year's taster course ahead of GCSE and in the case of Art, Drama, Music and Computing build on key skills currently taught in the 11s and 12s.

3 Dimensional Design

Please note that due to restrictions on the availability of teachers and rooms, the group size for each of the two 3D Design option groups is limited to a maximum of 12 pupils. In view of this, should interest in either group exceed 12 pupils, then there will be a lottery for places on the course. Parents of any pupils unsuccessful in gaining a place will be notified in writing and asked to resubmit their option choices within 3 days.

*Please also note that there is a termly charge of £85 per pupil for 3D Design.

Mrs H.M. Locke Deputy Head / Director of Studies (hlocke@harrodian.com)

LANGUAGE OPTION

French

13s French:

Topics to be covered this year:

- Extra-curricular activities
- Describing friends and describing what you used to be like
- Birthday celebrations
- Clothes
- Pocket money and small jobs
- Jobs and future plans
- Musical tastes
- Discussing how things have changed, including comparing your primary and secondary schools
- Food and eating habits
- Animals and the natural world
- The environment and the use of plastic
- The French speaking world and some Francophone countries and artists

By the end of the year pupils should be able to:

- understand written and spoken information on the topics studied in class
- extract key information from authentic sources including excerpts from literary texts
- take part in scripted and unscripted role-plays on the topics studied
- describe a picture and make a presentation on the topics studied
- ask and answer questions in different tenses on topics studied
- translate sentences from English to the target language and vice-versa, focusing on accuracy
- write extensively on the topics studied, using the language items and grammar studied in class to express their own opinions and ideas
- understand and apply a variety of grammar rules such as adjectival rules, gender of nouns, the pronoun "y", the different forms of the negative as well as the four key tenses

Assessment and Marking

In Year 9 (13s), pupils will be exposed to some GCSE material. For example, the type of questions used in some tests and end-of-year examinations will help prepare pupils for their GCSE language examinations.

Pupils' progress will be assessed on a regular basis with short tests focusing on one skill only. At the end of each module a more thorough assessment will be done and pupils will be assessed on a minimum of 3 out of 4 skills - reading, writing (including translation), listening and speaking.

Formal examinations will take place at the end of the year. Pupils will receive a grade or a percentage as well as a target.

Textbook: Dynamo 3 Rouge

LANGUAGE OPTION

ITALIAN

In the 13s (Year 9), pupils will study topics and grammar points relevant to the Italian GCSE examinations.

Topics to be covered this year:

- Town and directions
- Talking about sport and health
- Giving opinions about the cinema
- Shops, food and shopping
- Italian celebrations
- Tourism and the weather

By the end of the year pupils should be able to:

- listen and respond to a variety of spoken sources in Italian on the topics covered
- read and respond to a variety of written texts in Italian on the topics covered
- speak, recognise in the written form, understand and write key vocabulary and structures related to the topics covered
- translate sentences from English to the target language and vice-versa, focusing on accuracy
- express opinions of likes and dislikes on topics covered
- take part in role plays on topics covered
- describe pictures and make presentations on the topics covered
- write extensively about the topics studied in class
- discuss past, present and future events
- have a sound knowledge of basic grammar points, specifically: the present, future, perfect and imperfect tenses, the present continuous tense, adjectival agreement, prepositions, question words and demonstrative pronouns

Assessment and Marking

In the 13s (Year 9), pupils will be exposed to some GCSE material. For example, the type of questions used in some tests and end-of-year examinations will help prepare our pupils for their GCSE language examinations.

Pupils' progress will be assessed on a regular basis with small tests usually focusing on one skill only. At the end of each module, a more thorough assessment will be done and pupils will be tested on a minimum of three skills out of four- reading/listening/speaking/ writing. Pupils will also sit examinations in the Summer Term. Pupils will receive a grade or a percentage as well as a target to help them make progress in the subject.

Textbook: Amici d'Italia 2

LANGUAGE OPTION

Spanish

In the 13s (Year 9), pupils will study topics and grammar points relevant to the Spanish GCSE.

Topics to be covered this year:

- Cultural knowledge of Spain and Spanish speaking countries (festivals, customs, traditions, cultural differences)
- Holidays (location, transport, accommodation, weather, activities and souvenirs)
- Leisure time and organising to go out
- Discussing cinema, concerts, events
- Clothes (describing and buying)
- Body parts and illnesses
- Jobs and future plans
- Healthy living
- Children's rights and fair trade
- Recycling and world issues
- Local area

By the end of the year pupils should be able to:

- speak, recognise in the written form, understand and write key vocabulary and structures related to the topics covered
- express opinions of likes and dislikes, on topics such as food and drink, leisure activities and films
- describe pictures and make presentations on the topics covered in class
- take part in role-plays, for example ordering food and drink and buying clothes
- take part in discussions on topics such as fashion wear
- understand literature texts in Spanish
- write extensively about the topics studied in class, such as past and future holidays, and present orally facts and opinions on the same topics
- have a sound knowledge of basic grammar points, specifically: the present, near future, preterite and imperfect tenses, adjectival agreement, questions words and demonstrative pronouns

Assessment and Marking

In the 13s (Year 9), pupils will be exposed to some GCSE material. For example, the type of questions used in tests and end-of-year examinations will help prepare our pupils for their GCSE Spanish examinations.

Pupils' progress will be assessed on a regular basis with small tests usually focussing on one skill only. At the end of each module, a more thorough assessment will be done and pupils will be tested on a minimum of three skills out of four- reading/listening/speaking/ writing. Pupils will also sit examinations in the Summer Term. Pupils will receive a grade or a percentage as well as a target to help them make progress in the subject.

Textbook: ¡Viva! Book 3 Rojo - Modules 1-5

Ancient Greek

In the 13s (Year 9), Greek allows pupils studying Latin, to add a new string to their bow, by taking up an entirely new subject. A complex new subject, with an entirely new alphabet to get to grips, Greek is a challenging but extremely rewarding subject. Since it is similar to Latin in its grammatical and syntactical structures, those with a solid base in Latin are bound to flourish at this new challenge. Pupils opting to take Greek in Year 9 (13s) are required to have studied Latin at least to Level 2 at Common Entrance or equivalent, and have chosen to continue with Latin in Year 9 (13s). The course will start with the very basics as pupils get to grips with the new alphabet and then slowly move through the grammar and syntax rules, until pupils are gradually able to tackle longer, trickier passages of text. The grammar work in the 13s will include the study of active verbs in present, future, imperfect, and 1st and 2nd aorist and the cases of nouns and adjectives. Pupils will train themselves to record these rules by heart and to recognise their usage in Greek passages and grammar specific comprehensions. The sentence constructions will involve covering many aspects of the GCSE syllabus, including expressions of time and participles. Throughout the year pupils will build up their vocabulary knowledge using the GCSE vocabulary list.

Assessment and Marking

Pupils' work will be given a percentage mark and will be marked according to departmental guidelines. Pupils will also receive a comment appraising their work, setting targets to aim for and strategies to achieve those targets. Teaching staff are also available at the end of lessons, break times and during the weekly departmental drop-in session. Pupils will also be frequently tested on vocabulary, grammar and translation. They will sit an end-of-year examination.

Textbook: John Taylor: Greek to GCSE book 1 and 2; departmental resources

ART AND DESIGN

Why study Art at 13s? (Year 9)

Art and Design equips pupils with the skills to enjoy, produce and engage with the visual arts throughout their lives, and has immense value as a subject.

Art and Design provides the opportunity for pupils to:

- Take an individual approach to their art, craft and design making.
- Explore and experience both contemporary and historical sources of art, craft and design first hand. For example:
 - o Visiting museums and galleries.
 - o Experiencing audio-visual productions, including still and moving imagery.
 - o Through their surroundings and environments.

Pupils are required to actively engage in the creative process of art, craft and design in order to develop as effective and independent learners, and as critical and reflective thinkers with enquiring minds.

Pupils will learn to:

- Apply a creative approach to problem solving using analytical skills.
- Use suitable materials and techniques to explore their ideas: Drawing, Installation, Lens/light-based media, Mixed media, Printing, Painting and Sculpture.
- Develop, experiment and modify their work as it progresses towards the final outcome.
- Consider and develop original ideas from initiation to realisation.
- Analyse critically their own work and the work of others.
- Begin to build an artistic vocabulary and be able to make connections between other art and craft or design features in their own work.
- Express individual thoughts and choices confidently.
- Make judgements and give opinions about art, craft and/or design.
- Take risks, experiment and learn from mistakes.
- Collaborate with others and understand the importance of teamwork and cooperative learning.
- Build confidence and convey their own voice through the medium of art.
- Understand how art and design contributes to the creative industries and our global world.

Assessment and Marking

Continual throughout the year according to the curriculum guidelines and criteria, moving closer to the four assessment strands at GCSE.

BUSINESS

As the number of small businesses increases daily in the UK, the 13s' course opens pupils' eyes to the world of business, through a programme of structured activities.

A variety of activities are carried out in teams and individually. Great care is taken to avoid duplication with the GCSE and A level courses should they choose, as many do, to continue studying this subject.

The overall objective of the course is to enhance their understanding of the business world, through setting separate tasks that focus on: Enterprise, ICT and communications, Economics and Business planning.

13s' schedule:

Autumn first half term: **Enterprise project:** Pupils work in teams of four or five and devise a new product for the future. Attention is given to: product (including design), given price, distribution, promotion and quality of research into their target market. The group presentation is made using power point and prototypes (some have combined this with their 3D printing course) in a 'Dragons Den' style pitch.

Autumn second half term: **Web building project:** This is an individual task. Pupils are given a research topic on a current topical business theme, last year this was into presenting a travel desination of their choice. Once provided with a shortlist, they choose one and build a working website (minimum home page plus four pages of their choice) to promote their choice.

Spring first half of term: **You are the Chancellor:** Pupils are shown past and current budgets and taken through the decisions the chancellor has to make to balance tax revenue and budget spending. Can they beat the chancellor and get the books to balance? Following class work on different tax and spending options and their benefits to society, they deliver their individual answers in a timed class activity. A very popular activity, expect questions at home!

Spring/Summer terms: **The Enterprise Fair:** Pupils work in groups to choose and produce a product to raise money for charity at the annual 13s' Enterprise Fair. With a limited budget, they must plan all resources and costs and present a full business plan before the big day. There are always the popular food options but special recognition goes to those who can come up with alternative ideas to raise funds. They put a lot of effort and energy into this project and competition is rife, see them in action this Summer Term.

Assessment and Marking

A mark for each part of the project (15%) and 40% from the summer test.

CLASSICAL CIVILISATION

In the 13s (Year 9), pupils will get their first opportunity to study Classical Civilisation. This is the study of the mythology and history of the ancient Graeco-Roman world. No previous knowledge of any ancient languages is required to study it, although some Latinists will also find it very rewarding, either in addition to, or in place of, their Latin studies. There will be two different modules over the course of the year.

First, we will be studying Sparta and The Spartan System. Sparta was an extreme, totalitarian city state in classical Greece, which deviated wildly from the social and cultural trends set by its rivals. It was a place where the family unit barely existed, where society was structured to serve military strength, where amoral practices were employed to serve the greater good and where death in service to the country was promoted as the ultimate ideal. Pupils will study the Spartans and their way of life, with a critical eye for comparable ethics and logical criticisms. Ultimately, as a civilisation, Sparta was a failure; 13s Classicists will endeavour to understand why.

Secondly, we will read an ancient Greek epic work of poetry. Composed nearly three thousand years ago by the legendary blind bardic poet Homer, The Odyssey is the first great work in the Western canon of literature. The story of a hero's troubled return home from the Trojan war, pupils will follow Odysseus on his journey as he encounters terrible storms, fearful monsters, strong, inspiring women and the wrath of angry gods.

Analysing literary technique and narrative themes including Homeric heroism, gender issues, the roles of gods and the clash between civilisation and barbarism, the Odyssey is an engaging and unforgettable topic, an enduring cornerstone text in our modern day pop culture.

This course will provide pupils with a vibrant and exciting program that will be excellent preparation for the GCSE course if they choose to continue.

Topics subject to change.

Assessment and Marking

Pupils' work will be given a percentage mark and will be marked according to departmental guidelines. Pupils will also receive a comment appraising their work, setting targets to aim for and strategies to achieve those targets. Pupils will sit an end-of-year examination.

Textbook and Resources: OCR course reader, department resources

COMPUTING

The course aims to ensure that pupils can apply the fundamental concepts of computer science, including coding in Python, understanding how computers represent images, sound and text, how devices connect across networks and how their key hardware components function together. Pupils will become more digitally literate: responsibly, confidently and creatively developing their ideas through information and communication technology at a level suitable for the future workplace and as active participants in a digital world.

Topics to be covered this year:

- **Programming in Python:** using variables, user input and selection statements to solve problems such as designing an encryption algorithm. Understanding data types, using lists and understanding error messages to improve and debug programs. Using procedures, iteration and comments to make more efficient and maintainable programs.
- **Online safety and digital literacy:** Information and the Internet: reliability, validity and bias personal data; how to stay in control; how to report a problem.
- **Representing data:** Binary, bits and bytes: developing knowledge on how computers represent images, sound and text.
- **Spreadsheets:** RANK function and why absolute cell references are needed; applying suitable rules for data validation and cell protection.
- Website and app design: structuring, refining and presenting information for a specific audience.
- **Networks:** advantages of different topologies; wired & wireless technologies, protocols, malware & threat prevention.

By the end of the year pupils should have developed their ability to:

- analyse problems in computational terms, and write computer programs in order to solve problems; use programming techniques such as iteration, procedures, selection and variables;
- research websites effectively, evaluating the data for bias and validity, and present findings using appropriate software; understand how the web works and how to evaluate the reliability of search results; make responsible choices, considering digital footprint.
- understand what a computer is made up of and the part each component plays; understand how and why devices are connected together in networks.

Assessment and Marking

A-D grades will be given for understanding of subject concepts and quality of classwork, and number grades 1-4 given for effort and work ethic. These are awarded for each topic and are reflected in reported grades. Feedback will focus on what was done well and targets for improvement. There is an in-class end-of-year assessment.

Textbook

Textbooks and online resources will be provided.

Drama

Drama in the 13s (Year 9) is a highly creative subject. Pupils will explore a series of wide ranging topics and develop a variety of performance styles. Pupils will have the opportunity to see live theatre and will also benefit from having external practitioners coming into school to work with them.

Course Content

- The Rules of Improvisation
- The History of Theatre
- Devising from Stimulus
- Analysing and Evaluating Live Theatre
- Introduction to GCSE Drama
- Practitioner 101

Why take Drama in the 13s?

In the 13s you will learn to approach the creation and development of Drama in a more mature and sophisticated manner. The topics covered are carefully put together to work as an introduction to the GCSE course without focusing on the written elements.

As part of the course, you will go and see at least one piece of live theatre and have one workshop from an external theatre practitioner or company.

By the end of the 13s year, you will have:

- developed a more sophisticated appreciation for Drama
- worked practically on a range of exciting topics
- been to see at least one piece of theatre and reviewed it
- learnt about different styles of theatre and their impact on audiences

Assessment and Marking

Assessment and marking is ongoing in Drama. Feedback and comments for improvement are given constantly to both individuals and groups. A summative grade for attainment and effort is given on a half termly basis.

FILM STUDIES

Topics to be covered:

Term One – Reading Film (British, American and World Cinema)

- **Applying terminology:** Foundation study of the four elements of film analysis camerawork, sound, mise-en-scene and editing.
- Genre conventions: How they are used to address audiences and challenge audience expectations.
- **Representations:** The construction of and ideology behind representation of people and place.
- Short films: The exploration and analysis of a variety of short films from around the world.
- **Iconic scenes:** Analysis of some of the most iconic scenes from the golden age of cinema through to the present day.

Term Two – Creating Film

- Screenwriting and narrative structure: Pupils will study and utilise different narrative structures before writing their own screenplay to a short film.
- **Production of short film:** This is the practical component of the course. After writing a screenplay, pupils will undertake pre-production, including storyboarding and creating a shot list, before shooting and editing their own short films.

Term Three – In-depth study

• **Case study film:** This term involves an in-depth study of our core text and is the culmination of all of our previous work. Pupils will analyse key scenes, character arcs and representations, narrative structures, and cinematography, as well as understand the historical context.

• Possible films include:

- o Pan's Labyrinth
- o Spirited Away
- o Crouching Tiger, Hidden Dragon
- o Jurassic Park
- o Pride
- o Son of Rambow
- o Blade Runner

By the end of the year pupils should:

- have a greater understanding of the film format and what makes for a well-constructed piece of film, ultimately challenging their own approach to film
- be able to utilise correct film terminology in analysing seen and unseen texts, consolidating their existing analysis skills by looking at a new text type
- understand the reason for different representations and how they've been constructed
- understand genre conventions and why they are used
- be able to write an original screenplay to a short film
- have the skills to shoot a multi-scene short film
- have developed video editing skills

Assessment and Marking

Assessment and marking is ongoing. Feedback and comments for improvement are given constantly to both individuals and groups. A summative grade for attainment and effort is given on a half termly basis.

LATIN

In the 13s (Year 9), Latin allows pupils to continue their studies, preparing them for their GCSE. Pupils opting to take Latin in Year 9 (13s) will be expected to have studied Latin at least to level 2 at Common Entrance or equivalent. The focus of the course is very much on developing the young Latinists' use and comprehension of grammar and syntax rules, so that they are gradually able to tackle longer, trickier passages of Latin. The grammar work will include the study of active and passive verbs in present, future, imperfect, perfect, pluperfect and future perfect tenses, in all conjugations and the cases of nouns and adjectives (positive and comparative) in all declensions. Pupils will train themselves to record these rules by heart and to recognise their usage in Latin passages and grammar specific comprehensions. The sentence constructions will involve covering many aspects of the GCSE syllabus, including indirect statements, purpose clauses and participles. Through this, pupils will not only gain an understanding of the mechanics of Latin, but of language itself. Pupils will also continue to work on their vocabulary knowledge using the GCSE vocabulary list.

Assessment and Marking

Pupils' work will be given a percentage mark and will be marked according to departmental guidelines. Pupils will also receive a comment appraising their work, setting targets to aim for and strategies to achieve those targets. Teaching staff are also available at the end of lessons, break times and during the weekly departmental drop-in session. Pupils will also be frequently tested on vocabulary, grammar and translation. They will sit an end-of-year examination.

Textbook:

So You Really Want To Learn Latin 1, 2 and 3; Who Said Latin's Dead? Level 3; departmental resources

MEDIA STUDIES

Topics to be covered:

Term One – Advertising

- Introduction to the core concepts of Media Studies
- Methods and techniques of addressing audiences
- Advertising analysis (both print and television)
- Pupils have the choice of creating their own print or television advertisements

Term Two – Music Video

- Analysis of music videos
- Mediated image of stars
- Music video camera and editing techniques
- Creation of a music video

Term Three – Magazine review

- Analysis of magazine reviews in a variety of genres
- Creation of a double page spread (DPS)

By the end of the year pupils should:

- have developed skills in software such as Final Cut Pro X, Photoshop and Indesign
- be able to analyse a range of texts
- understand how and why creators of texts aim to influence audiences
- be able to conceptualise, shoot and edit a music video to an existing song
- have worked effectively in a group

Assessment and Marking

Homework will be set once a week and should take 40 minutes. It will be marked according to departmental guidelines. The use of the internet for research purposes is encouraged and suitable websites will be given. The application of IT is encouraged in the presentation of work.

A letter grade will be given for academic attainment and a number grade will be given for effort. Marks are accompanied by a comment or explanation to help pupils understand how to improve their work. Staff are available at break times, lunch times and after school. Formal assessment will take the form of written and production assignments, end of module tests and an end of year examination.

MUSIC

In the 13s Music option, pupils will be introduced to many of the concepts that will be covered in GCSE Music. Over the three terms, they will study the following:

- **Popular Song:** Pupils will study popular songs, with particular focus on solo and group performance.
- **Composition/Song Writing:** Following on from the previous topic, pupils will have the opportunity to compose their own piece of music in a popular style.
- Jazz: Pupils will look at the features of jazz music, including extended chords, improvisation and analysis of famous jazz pieces.
- **The Orchestra:** Pupils will learn about the history of the orchestra and its repertoire with particular focus on the use of orchestral music in media.
- **The Western Classical Style:** Pupils will learn about baroque, classical and romantic music through listening and study of a piece from each musical time period.
- **Solo Performance:** As preparation for GCSE Music, pupils will prepare a solo piece to perform in a class concert.

By the end of the year pupils should:

- be able to identify a number of different styles of music from different periods
- be able to identify harmonic devices such as tonality, different chords and cadences
- be able to write simple pieces of music as well as be able to notate melodies and input music into software such as Logic Pro X
- have gained experience and confidence in performing in front of their peers as soloists and as part of an ensemble

Assessment and Marking

Targets are set for each pupil on a regular basis. Performance, listening and composition work are assessed regularly both formatively and through peer assessment.

Sport Science

If you enjoy taking part in sport, have an interest in the world of sport or are thinking about doing GCSE PE, then this will be a great option for you. A range of relevant theory modules will be delivered and will involve a combination of theory and practical work. This option is designed to be a snapshot of the GCSE PE course and provides the foundational knowledge for the topics covered in Years 10 and 11. Please see an overview of what is covered in Year 9 Sport Science below.

Applied Anatomy & Physiology

- Basic anatomy and physiology
- Physiological responses to exercise

Principles of Fitness

- Fitness testing and methods of training
- Health and Skill related components of fitness
- Training programmes, involving how to plan and monitor a Personal Exercise Programme.
- Injuries in sport

Sociology & Psychology in Sport

- Sponsorship in sport
- The influence of the media in sport
- Drugs in sport
- Sport Psychology, which covers stress and arousal

Assessment and Marking

The course is assessed with an end of year exam and will involve continual assessment throughout the year. This will be in the form of homework, presentations, end of topic tests and practical assessments.

3 DIMENSIONAL DESIGN

3 Dimensional Design is a course aimed at addressing the need to provide the school with a subject which looks at design as a problem solving discipline, combining creativity, three dimensional thinking and technical skills.

The course will look to follow the classic design process, from analysis of a brief (problem to be solved), sketching out the initial concepts, choosing the best material for the task, experimentation with construction, testing, refinement of design and finally production. The course will focus on product design as well as looking at architectural and structural briefs to give, it is hoped, a broad look at the subject, as well as expose the pupils to the career possibilities design offers.

The ultimate aim of the 13s course is to encourage the pupil to take the subject further at GCSE.

Topics to be covered:

- Thinking and sketching in three dimensions
- Material selection
- Concept refining and developing
- Construction techniques
- Ergonomics
- Computer aided design
- 3D printing

By the end of the year pupils should be able to:

- have an understanding of the design process and follow the required steps through to conclusion
- visualise on paper ideas and forms
- work in a range of materials from foam board, aluminium and plastics employed in the 3D printing technique
- bring together knowledge from other subject areas to help successfully tackle design problems
- construct with attention to detail, and with a degree of precision, working models and prototypes

Assessment and Marking

Homework is set once a week based around sketchbook development and material manipulation.

Group Size: 12 maximum per class There is a termly charge of £85