

Sixth Form Options Information Booklet

For September 2021 Entry



This booklet is designed to give you information on the pre-U and A level courses offered at The Purcell School for Sixth Form studies (years 12 and 13). If you have any further questions, please speak to the appropriate Head of Department or subject teacher who will be able to give you more information.

Students should expect to choose two additional subjects to study alongside Pre-U Music, which is a required course for all.

Please also note that not all courses may run each year: the School may adjust the curriculum choices according to demand.

Foreword

The Sixth Form at The Purcell School is a unique and exciting experience.

Music lies at the centre of life at Purcell, with ample and varied opportunities to develop your performing skills and to prepare for auditions or university entrance. At the heart of our classroom curriculum, studying for the pre-U in Music will enable you to deepen your understanding of your art, to make new connections and to capitalise on your performing experience.

We ask our students to select two further classroom subjects to complement their studies in music. We know that the most creative, expert and informed musicianship happens when there is an exciting context for your wider growth as a musician. That's why we ask that you are ambitious about all your classroom learning and why we offer a boutique curriculum with expert teaching in subjects which we know that young musicians enjoy. The Pre-U qualification, which we offer in Music, is equivalent to A-Levels although the course content is often more challenging. In most other subjects we offer a two year A-Level course, although students who opt for a science will take an AS-Level examination at the end of their Lower Sixth year. Some students may be allowed to study only one additional subject, particularly those who opt to study English as an Additional Language, but this can only be offered after consultation with the Head of Sixth Form and Deputy Principal.

Our aim is that, whatever subjects you choose to complement your Pre-U in Music, you will find subjects that inspire you and give you useful qualifications with which to enrich your CV, whether you are destined for conservatoire or university music, or if, like a handful of students each year, you decide to take on a different subject at university or an alternative path.

Choosing your subjects can be a daunting task, especially if you're not yet sure what you want to do after you leave school! Whether you have it all planned out or whether you're taking each day as it comes, my best advice to you is to ask around and find out which course is right for you.

Speaking to the teacher who teaches that subject is a great way to do this, but it's also worth speaking to students who are currently studying to get their impressions of the course. Please don't hesitate to get in touch, and as Head of Sixth Form I'm always happy to discuss your choices with you. Different future plans require different choices to be made but please don't feel you're alone in doing so! If you have any questions please drop me an email at z.szafranski@purcell-school.org and I'll be happy to help.

Ziggi Szafranski, Head of Sixth Form

Pre-U

Music

Exam Board: CIE

All students will take Pre-U Music. Pre-U examinations are equivalent to A-Levels, although the course content is often more challenging.

Course Overview

Component	Duration	Assessment	Weighting
1 Paper 11: Listening	1 ½ hours (June 2021)	Written paper. Externally set and marked.	15%
1 Paper 12: Analysis & Historical Study	1 ½ hours (June 2021)	Written paper. Externally set and marked.	15%
2: Performing	25-30 minutes	Performances in school and marked by visiting examiner.	22.5%
3: Composing	2 hour exam <i>plus</i> coursework	Written paper externally set and marked. Coursework completed throughout 2 year course and externally marked. Coursework consists of Stylistic Exercises & Commissioned Composition	22.5%
4: Personal Study Choice of: Dissertation, Advanced Recital, Free Composition, Music Technology	Ongoing	Coursework internally marked and externally moderated.	25%

Component 1: Listening, Analysis and Historical Study

Analysis and Historical Study - Paper 11

Written paper, 1 hour 30 minutes, 60 marks

You will be provided with a CD containing the extracts of music to be used in the examination; candidates may listen to the CD as many times as they wish.

Section A (24 marks)

You will listen to two different recordings of an extract of music drawn from the repertoire studied for which a full or reduced score will be provided. You will be asked to compare the performances, with reference to such matters as; **tempo, dynamics, instruments, phrasing, articulation, balance, ornamentation**, and to comment on relevant performance practice issues.

Section B (36 marks)

Candidates will listen to one extract of music drawn from the repertoire studied for which a skeleton score will be provided. They will answer a variety of questions: some may involve writing down sections of **melody, rhythmical figures or articulation** missing from the score; you will be expected to identify **chords and harmonic / cadential progressions** and you will be asked to **identify errors** in the printed score. Other questions may involve a verbal commentary on matters of **texture, instrumentation, phrase structure, form or style**. Candidates will be expected to be able to **relate this piece of music to the wider repertoire of the topic** and some questions may require you to comment on that relationship.

Analysis and Historical Study - Paper 12

Written paper, 1 hour 30 minutes, 60 marks

Section C (36 marks)

Two questions will be set on each topic and you will be expected to answer both of these. The first question will ask for specific **analytical detail** of the Prescribed Work, including matters of **harmony, texture, orchestration, etc.** as appropriate. There will be a choice of second question which will be more general, e.g. relating the work to its **cultural context**; to its composer's **musical output**; or dealing with the **repertoire of the topic as a whole**.

You will have a clean, unmarked score of the Prescribed Work to use in the examination room; if you are studying Topic C4, (see below) you may additionally have the CD.

Section D (24 marks)

Five questions will be set, and candidates must answer one of these. Questions will give candidates the opportunity to consider general musical matters and to form connecting links between any of the topics studied in this component or any music studied for the examination as a whole. The clarity of candidates' arguments and the quality of their language will be assessed.

Component 2 – Performing

Performance component, 90 marks, to be performed in Spring term of the Upper Sixth

Section A Recital (60 marks)

You are required to prepare and present a recital on one instrument or voice, lasting between **15 and 20 minutes**. You may perform in one of the following two performance categories:

Category 1 - as a soloist

Category 2 - as an accompanist or in a duet or a small ensemble.

Section B Extended Performing (30 marks)

You must present one further skill in a programme lasting between **6 and 10 minutes**.

You may offer:

- **the same instrument** (or voice) as that presented in Section A but in a **different category**
- **a second instrument** in any of the categories
- **improvisation** on a stimulus provided by the Examiner.

Component 3 Composing

Section A Stylistic Exercises (2 hour examination) 30 marks – Summer term of Upper Sixth

In the examination, you will complete one exercise in one of the above genres.

Section B Stylistic Exercises (coursework) 30 marks – Completed throughout Lower and Upper Sixth

In harmony lessons, throughout the course, you will compile a portfolio of 10 exercises – 5 harmonisations of Bach Chorales and 5 String Quartet harmonisations. These exercises will be set by your harmony teacher and will be completed periodically in class. Your completed portfolio will be submitted at the same time as the Stylistic Exercises exam in the summer.

Section C Commissioned Composition (coursework) 30 marks

You must submit one composition, based on a commission set by the board, which may be in any style of your choice.

The commission will contain a variety of options, which will include:

- a choice of song texts
- a composition for an instrumental ensemble
- a composition based on a given musical stimulus.

The composition must be submitted in the form of:

- (i) a recording on audio CD
- (ii) *either* a score in a form of notation appropriate to the style of the music *or* an explanatory document

Component 4 Personal Study

This component allows you to play to your strengths. You will begin preparation for your Personal Study in the spring term of the Lower Sixth. You have a choice of four options for your personal study. The nature of this component of the course is that it is 'student led'. This means that you will be responsible for the preparation of the component. You will have a staff member assigned as a mentor and protected time in school for preparation.

Component 41 Dissertation – 100 marks

Component 42 Advanced Recital – 100 marks

Component 43 Free Composition – 100 marks

Component 44 Music Technology – 100 marks

Costs

The total cost over the two years for scores and other resources is around £85, though this is slightly variable depending on which set text is chosen for study in the Upper Sixth.

Entry Requirements

All students will take Pre-U Music.

Additional Information

For more information on the course:

<https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-pre-u-music-9800/>

AS or A-Level

Art and Design Fine Art or Photography

Exam Board: AQA

Are you creative and imaginative? Do you enjoy exploring ideas and looking at things in different ways? If so, you should consider a course in Fine Art or Photography. The course is about looking, learning, thinking and communicating. You will enjoy developing your understanding of the visual world, learning practical skills and responding to ideas and issues in ways that are personal to you. You will develop your understanding of creative processes, your ability to observe and to think, to solve problems and to communicate in a visual way. It will enable you to work independently and to make your own discoveries by exploring ideas, other artists' work, different materials and techniques.

This is a broad-based course exploring practical, critical and contextual work through a range of processes and media. Students can choose to focus on a specialist area of study to suit their individual interests and abilities. Art is a great companion to all other subjects as it develops creativity, imagination and problem-solving skills.

Students will experience artworks first hand, and regular visits to galleries and museums are an important part of the course. A term's programme of weekly life classes will also form the foundation for the coursework units. Regular workshops are given to familiarise students with a variety of mediums. Students will be encouraged to develop their own ideas and independence of mind.

Fine art: *drawing, painting, mixed media, sculpture, ceramics, installation, printmaking, moving image (video, film, animation), photography, graphics, mixed media and textiles. There is, therefore, an in-built flexibility that allows for developing skills, in a broad variety of specialisms*

Photography: *portraiture, landscape photography, still life photography, documentary photography, photojournalism, fashion photography, experimental imagery (pinhole, camera less photography), multimedia, photographic installation and moving image (video, film, animation)*

Assessments

AS Level

Students will produce a portfolio of work for Component 1, 60% of the total AS marks. In Component 2 they will produce personal work in response to one of five exciting starting points, 40% of the total AS marks.

A-level

During Component 1 they will develop work for a personal investigation into an idea, issue, concept or theme supported by written material, 60% of the total A-level marks. In Component 2 they will produce personal work in response to one of eight exciting starting points, 40% of the total A-level marks.

Costs

The following materials are issued and billed at cost: A-Level art pack, containing a range of materials (brushes, pencils, sketchbooks etc.) to enable students to work within school and at home. It would be beneficial for students to have access to a digital camera, however the department has a range of DSLR and SLR cameras available to sign out.

Entry Requirements

None, although an ability to work independently and a keen interest in the subject is desirable.

Additional Information

To support students throughout the course the department operates an open studio policy, allowing students to gain access to the art room during the day, evenings and weekends. In addition, a weekly after school art club, run by a member of the department, provides an opportunity for students to get extra technical help and access to more specialised equipment.

For more info on the course:

<https://www.aqa.org.uk/subjects/art-and-design/as-and-a-level/art-and-design/specification-at-a-glance>

AS or A-Level

Biology

Exam Board: AQA

A-Level Biology will give you an exciting insight into the world around us. As biology is fundamentally an experimental subject the required practical activities will allow you the opportunity to link theory to reality and to embed your skills and knowledge. There is no coursework, but your performance during practicals will be assessed. At least 15% of the marks are based on what you learn in your practicals.

The AS and A-level courses are fully co-teachable. AS exams are similar in style to the A-Level, testing a subset of the same content with less difficulty. This allows you to develop and help you decide if A-Level is the right choice for you.

A Level biology will give you the skills to make connections and associations with all living things around you and open the door to a fantastic range of interesting careers.

You should study biology if

- You have an interest in and enjoy biology;
- You are interested in the natural world and biology;
- You enjoy problem solving and applying their knowledge to unique situations;
- You want to pursue a career in some aspect of biology including medicine, physiology, virology and immunology or ecology.

The aims of the course are to encourage candidates to:

- develop their interest in and enthusiasm for biology, including developing an interest in further study and careers associated with the subject;
- appreciate how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society;
- develop and demonstrate a deeper appreciation of the skills, knowledge and understanding of scientific methods;
- develop essential knowledge and understanding of different areas of biology and how they relate to each other.

Topics covered at AS and first year of A Level: 1. *Biological molecules*, 2. *Cells*, 3. *Organisms exchange substances with their environment and Genetic information, variation and relationships between organisms*.

Topics covered in the second year of A-Level: 5. *Energy transfer between organisms*, 6. *Organisms respond to changes in their internal and external environments*, 7. *Genetics, populations, evolution and ecosystems*, 8. *The control of gene expression*.

Assessments

AS Level:

Paper 1: Written Exam 75 marks: 65 marks short answer questions and 10 marks comprehension questions. Topics 1-4, including relevant practical skills.	Examination 1 hour 30 minutes	50% of AS Level
Paper 2: Written Exam 75 marks: 65 marks short answer questions and 10 marks extended response. Topics 1-4, including relevant practical skills.	Examination 1 hour 30 minutes	50% of AS Level

A-Level

Paper 1: Written Exam 91 marks: 76 marks short and long answer questions and 15 marks extended response questions. Topics 1-4, including relevant practical skills.	Examination 2 hours	35% of A-Level
Paper 2: Written Exam 91 marks: 76 marks short and long answer questions and 15 marks extended response questions. Topics 5-8, including relevant practical skills.	Examination 2 hours	35% of A-Level
Paper 3: Written Exam 78 marks: 38 marks structured questions, 15 marks critical analysis of given experimental data and 25 marks one essay from a choice of two titles. Topics 1-8, including relevant practical skills.	Examination 2 hours	30% of A-Level

Costs

A single textbook covering the whole of the A-Level course (AS and A2) costs around £45.

Entry Requirements

You will need a good science GCSE grade (double science or similar, it is worth looking at the content for the triple award prior to commencing the course). Good maths skills are essential, as the mathematical requirements are significantly above GCSE.

Additional Information

For more info on the course:

<https://filestore.aqa.org.uk/resources/biology/specifications/AQA-7401-7402-SP-2015.PDF>

AS or A-Level

Chemistry

Exam Board: AQA

A-Level Chemistry will give you an exciting insight into the world of chemistry. You will learn about chemistry in a range of different contexts and the impact it has on industry and many aspects of everyday life. As chemistry is fundamentally an experimental subject the required practical activities will allow you the opportunity to link theory to reality and to embed your skills and knowledge.

The AS and A-level courses are fully co-teachable. AS exams are similar in style to the A-Level, testing a subset of the same content with less difficulty. This allows you to develop and help you decide if A-Level is the right choice for you.

You should study Chemistry if

You want a career in the science industries, medicine, teaching, catering & many other fields.

You want to develop an interest and enthusiasm for chemistry, including developing an interest in further study.

You wish to gain the skills and understanding to make decisions about the way chemistry affects your everyday life by applying concepts into contemporary areas of chemistry, including climate change, green chemistry, pharmaceuticals and chemical research.

You feel you are an effective problem-solver and are able to communicate efficiently both orally and with the written word.

You want a challenge in your academic studies.

You want an A-Level that is highly respected by both employers and universities.

During the course you will

Develop a wide range of practical skills. Overall, at least 15% of the marks for the A-Level course will require the assessment of practical skills.

Learn about how reactions take place and how they affect people.

Improve a large number of skills including problem solving, communication, research and planning skills.

Assessments

AS Level

Paper 1: Written Exam: 65 marks short and long answer questions and 15 marks multiple choice.	Examination 1 hour 30 minutes	50% of AS Level
Paper 2: Written Exam: 65 marks short and long answer questions and 15 marks multiple choice.	Examination 1 hour 30 minutes	50% of AS Level

A-Level

Paper 1: A-Level: 105 marks short and long answer questions.	Examination 2 hours	35% of A-Level
Paper 2: A-Level: 105 marks short and long answer questions.	Examination 2 hours	35% of A-Level
Paper 3: A-Level: Any content and any practical skills. 40 marks practical techniques and data analysis. 20 marks testing across the specification. 30 marks multiple choice questions.	Examination 2 hours	30% of A-Level

Costs

A single textbook covering the whole of the A-Level course (AS and A2) costs around £45.

Entry Requirements

You will need a good science GCSE grade (double science or similar, it is worth looking at the content for the triple award prior to commencing the course). Good maths skills are essential, as the mathematical requirements are significantly above GCSE.

Additional Information

For more information on the course, the specification can be found at:

<https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-7404-7405-SP-2015.PDF>

A-Level only

Drama and Theatre

Exam Board: Edexcel

A-Level Drama is an exciting and in-depth exploration into the work of different practitioners and theatrical styles through both practical and theoretical studies.

This course is suitable for students who are interested in

- learning about theatrical techniques, forms and structures
- going to the theatre and analysing performance
- working creatively in a group
- creating and performing plays

There is a requirement for self-led rehearsals and additional work outside the classroom, so students should expect to put in the additional time when required. There is also a written analytical component that requires good self-reflective and written skills in addition to the written examination.

Assessments

A-Level

Component 1: Devising Students will: Devise an original performance piece based on a text and a theatrical practitioner. Write a 2500-3000 word evaluation of the devised performance and the creative process leading up to it	Coursework Internally Assessed	40% of A-Level
Component 2: Text in Performance Students will: Perform an extract from one play with others in your group. Perform a monologue from a different play.	Coursework Externally Assessed	20% of A-Level
Component 3: Theatre Makers in Practice Students will: Write an evaluation of a live theatre performance. Answer two essay questions on a set play text. Answer an essay question on one other set play text. The two set texts are likely to be <i>Lysistrata</i> by Aristophanes and <i>Accidental Death of an Anarchist</i> by Dario Fo. However, these may change depending on the strengths and interests of the group.	Written Examination 2 hours	40% of A-Level

Costs

Copies of your studied play texts and any required textbooks will be bought as required and re-charged on the school bill at the retail price. There is a requirement to see live theatre performances and these will be charged as notified to parents in advance.

Entry Requirements

GCSE Drama is not a requirement for entry to this course. However, students should have a keen interest in theatre and be prepared to contribute to all lessons by taking an active part physically and vocally. Due to requirements from the exam board this course requires a minimum of three students in order to run.

Additional Information

For more information on the course:

<https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/drama-and-theatre-2016.html>

AS or A-Level

English Literature

Exam Board: OCR

The AS and A-Level courses are “uncoupled” which means that students must choose carefully at the beginning whether they wish to take the AS English Literature one year course OR the A-Level English Literature two year course. Final choices on text options are usually made after consultation with students during the course, but if you are interested in seeing the full list this can be done on the OCR website (see below).

Assessments

AS Level

Component 1: Shakespeare and Poetry Pre-1900 Students study two texts for examination at the end of the year, one play by Shakespeare and one major poet writing before 1900. This is a closed text exam.	Examination 1 hour 30 minutes	50% of AS Level
Component 2: Drama Post-1900 and Prose Post-1900 Students study two texts, one Play and one Prose text. This is a closed text exam.	Examination 1 hour 45 minutes	50% of AS Level

A2 Level

Component 1: Shakespeare and Drama and Poetry Pre-1900 This involves a study of three texts: a play by Shakespeare, a second play by a different author and the study of a major poet. All texts must have been written before 1900. This is a closed text exam.	Examination 2 hours 30 minutes	40% of A-Level
Component 2: Comparative and Contextual Study This is a Thematic Component which requires the study of three texts. The texts must include two Prose texts and an unseen passage. This is a closed text exam.	Examination 2 hour 30 minutes	40% of A-Level
Component 3: Literature Post-1900 This is a coursework component which requires the study of three Post-1900 texts, one Prose, one Drama and one Poetry. There are two tasks, a Close Reading essay and a Comparative essay. This coursework is awarded at the end of the two year course, though its completion date will need to be much earlier in the course.	Coursework 3000 words (suggested)	20% of A-Level

Costs

Copies of your textbooks and literary texts will be bought as required and re-charged on the school bill at the retail price.

Entry Requirements

GCSE English Literature or equivalent qualification.

Additional Information

The English Literature course has seven periods a week.

For more information on the course:

<https://www.ocr.org.uk/qualifications/as-a-level-gce/english-literature-h072-h472-from-2015/>

A-Level only

French and / or German

Exam Board: Edexcel

The Sixth Form language courses build on knowledge acquired at GCSE or equivalent, and will be taught over the two Sixth Form years with the A Level exam taken in May / June of Upper VI (year 13). We do not offer an AS course.

In the Sixth Form, students are expected to acquire more independent study skills and supplement class work with individual study such as listening work, vocabulary learning, research for the speaking topic and wider reading. They should be prepared for a more grammatical approach to language learning and should ideally have grade 7, 8 or 9 at GCSE. Although not essential, they will benefit enormously from any visits, exchanges or courses in countries where the target language is spoken so as to build up their spoken fluency.

The courses aim to develop linguistic competence in speaking, listening, reading and writing while also fostering an appreciation of the culture, society, literature and film of the target language countries. Students will develop an understanding of various styles of written and spoken language and strengthen their ability to talk and write fluently and accurately about a range of topics. In addition, they will develop useful transferable study skills such as independent research, critical thinking and analysis, thus equipping them for Higher Education and enhancing their employability profile. Clearly, an A level in a language is hugely beneficial for any musician considering performing or studying abroad, although please note that the A level is much broader in scope than the purely language-focused tests often required for entry to conservatoires abroad, so the two should not be confused.

The specifications prescribe four themes (for both French and German: *Social Issues and Trends* and *Political and Artistic Culture*, plus two language-specific cultural/historical themes) for Papers 1 and 3, and set literature / film works for Paper 2.

Assessments**A-Level**

Paper 1: Listening, Reading and Translation Various comprehension tasks and translation from the target language into English	Examination 2 hours	40% of A-Level
Paper 2: Written Response to Works and Translation Two essays in the target language (on 2 set texts, or 1 set literary text and 1 set film) and translation from English into the target language	Examination 2 hour 40 minutes	30% of A-Level
Paper 3: Speaking Discussion of one of the 4 prescribed themes followed by presentation and discussion of student's independent research project	Examination 21-23 minutes	30% of A-Level

Costs

The Hodder Education Edexcel A Level textbook (about £35) is purchased on behalf of students and re-charged, as are the literature texts (normally about £5-10 each).

Entry Requirements

Ideally a GCSE in the appropriate language with a grade of 7 or above.

Additional Information

For more info on the course: <http://qualifications.pearson.com/en/qualifications/edexcel-a-levels/modern-languages-2016.html>

A-Level only

History

Exam Board: AQA

We study the AQA 7042 History syllabus, which contains three components: one British component, one non-British component and a Historical Investigation / personal study.

Assessments

A-Level

<p>Component 1: Breadth Study: The British Empire c 1857 - 1967 The study of significant historical developments over a period of around 100 years and associated interpretations.</p> <p>This option allows students to study in breadth issues of change, continuity, cause and consequence in this period through the following key questions:</p> <ul style="list-style-type: none"> • Why did the British Empire grow and contract? • What influenced imperial policy? • What part did economic factors play in the development of the British Empire? • How did the Empire influence British attitudes and culture? • How did the indigenous peoples respond to British rule? • How important was the role of key individuals and groups and how were they affected by developments? <p>Examination Questions:</p> <ul style="list-style-type: none"> • Section A – One compulsory question linked to historical interpretations • Section B – Choice of two from three essays 	<p>Examination 2 hours 30 minutes</p>	40% of A-Level
<p>Component 2: Depth Study: The Birth of the USA This option provides for the study in depth of the years in which thirteen American colonies chose to sever their links with Great Britain and thus found the USA. This study explores the concepts of imperialism, mercantilism and legitimate government and encourages students to reflect upon the interplay of forces from below and above, the importance of ideology and the economy in political development and the issues facing those who attempt to challenge an established authority.</p> <p>Examination Questions:</p> <ul style="list-style-type: none"> • Section A – One compulsory question linked to primary sources or sources contemporary to the period • Section B – Choice of two from three essays 	<p>Examination 2 hour 30 minutes</p>	40% of A-Level
<p>Component 3: Historical Investigation A study based on the Changing Nature of Warfare 1791-1891. This should take the form of a question in the context of approximately 100 years. It must not duplicate the content of options chosen for Components 1 or 2.</p>	<p>Coursework 4000-4500 words</p>	20% of A-Level

Costs

Copies of any required textbooks will be bought as required and re-charged on the school bill at the retail price.

Entry Requirements

Ideally a GCSE in History or English at grade 5 or above.

Additional Information

For more information on the course: <https://www.aqa.org.uk/subjects/history/as-and-a-level/history-7041-7042>

AS or A-Level

Mathematics

Exam Board: Edexcel

The current AS and A-level syllabus was introduced in Mathematics for students in September 2017. This was designed to follow on from the new mathematics GCSE which was first examined in June 2017.

All students will be assessed on their knowledge of Pure Mathematics, Mechanics and Statistics. The assessment objectives include a greater emphasis on modelling, problem-solving and reasoning, so some questions are likely to be longer with less scaffolding. This builds on the increase in problem-solving in GCSE so students will be better prepared but the course will be challenging.

The features of the course include:

Linear structure: AS is de-coupled from A-level, and all assessment will take place at the end of the course. Exam questions may draw on the content of the whole A-level and will link different aspects of the course.

Whilst students can still sit an AS level halfway through the two-year course, the grade awarded at AS will not be counted towards the full A level grade. The AS level qualification carries UCAS points as long as the full A level is not awarded.

Emphasis: There is an emphasis on problem solving, reasoning and modelling, and a requirement for the use of technology to permeate teaching and learning.

Content: The content of AS and A level Mathematics is fixed. It includes pure mathematics, mechanics and statistics (including analysis and knowledge of the Edexcel large data set).

Mathematics A-Level is for those with real ability in the subject. It helps make sense of the world using numeric skills, proof and reasoning and mathematical modelling.

It is important that you are keen on the subject and enjoy working out mathematical problems as well as being organised and methodical in your revision and homework assignments. You must be prepared to take responsibility for your learning, for example, by going through the notes after each lesson and catching up promptly with work missed because of instrumental activities. This is particularly important in a subject like A-Level Mathematics which is hierarchical in its progression - new learning builds on previous topics and skills so regular practice each week is vital.

Assessments

AS Level

Paper 1: Pure Mathematics Topic 1 Proof Topic 2 Algebra & Functions Topic 3 Coordinate Geometry Topic 4 Sequences & Series Topic 5 Trigonometry Topic 6 Exponentials & Logarithms Topic 7 Differentiation Topic 8 Integration Topic 9 Vectors	Examination 2 hours Students must answer all questions Calculators may be used	66.66% of AS Level
Paper 2: Statistics and Mechanics Section A: Statistics Topic 1 Statistical sampling Topic 2 Data Presentation & Interpretation Topic 3 Probability Topic 4 Statistical Distributions Topic 5 Statistical Hypothesis Testing (Paper 2: Statistics and Mechanics continued) Section B: Mechanics	Examination 1 hour Students must answer all questions Calculators may be used	33.33% of AS Level

Topic 6 Quantities and Units Topic 7 Kinematics Topic 8 Forces & Newton's Laws		
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A-Level

Paper 1 and Paper 2: Pure Mathematics Paper 1 and Paper 2 can contain questions on any of the topics below. Topic 1 Proof Topic 2 Algebra & Functions Topic 3 Coordinate Geometry Topic 4 Sequences & Series Topic 5 Trigonometry Topic 6 Exponentials % Logarithms Topic 7 Differentiation Topic 8 Integration Topic 9 Numerical methods Topic 10 Vectors	Examination 2 hours for each paper Students must answer all questions Calculators may be used	66.66% of A-Level (33.33% for each paper)
Paper 2: Statistics and Mechanics Section A: Statistics Topic 1 Statistical sampling Topic 2 Data Presentation & Interpretation Topic 3 Probability Topic 4 Statistical Distributions Topic 5 Statistical Hypothesis Testing Section B: Mechanics Topic 6 Quantities and Units Topic 7 Kinematics Topic 8 Forces & Newton's Laws Topic 9 Moments	Examination 2 hours Students must answer all questions Calculators may be used	33.33% of AS Level

Costs

The full set of A-Level text books currently cost £60. AS-Level text books cost £30. The specific Casio Classwiz FX-991EX calculator is required for additional Statistics content and costs £25. All are available from the Maths Department.

Entry Requirements

You will need to achieve a Grade 8 or 9 in GCSE Mathematics at the Higher Tier. In exceptional circumstances a student with a strong grade 7, with particular strengths in algebra and graphs, may be allowed onto the course following agreement from the Head of Mathematics. Students without a UK GCSE qualification will be required to undertake a formal three week assessment period in Mathematics in order to continue with the course. Further details on suitability of individual students can be discussed with the Head of Mathematics.

Additional Information

For more information on the course:

<https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html>

A-Level

Music Technology

Exam Board: Edexcel

Music Technology is the ideal subject for those interested in the wide variety of musical styles connected to studio music: arranging, composing, producing, sound creation and sound engineering. You will learn how to record, mix, sample and sequence through the creation of projects in a range of styles. You will learn how to use the school's professional recording studio, computer software and all the related recording and production.

The course has a strong practical bias with students developing their work into professionally made recordings, arrangements and compositions. During the course you will expand your knowledge and experience through creative coursework projects. The options for these include composition for film, song writing, electro-acoustic composition, advanced multi-track recording, synthesis and sampling and mixing. For the written paper, further study of the practical application of technology.

Music Technology is not a technology course; it is a music course which uses technology for creative musical projects. Knowledge and use of computers before the course is not a requirement. Candidates with little previous experience of technology have achieved good A grades. With Music Technology as one of their A-levels, past students have been offered places at Cambridge, King's College London and the Tonmeister course at Surrey University. Several now have careers as film and media composers, producers and sound engineers.

Music Technology is practical, creative, demanding and immensely rewarding. The skills and creative work developed on the course are presented annually in the two popular Sound Image Movement concerts held in the Spring and Summer terms.

Assessments

Candidates follow the A-Level Music Technology course set by Edexcel

Multi-track recording coursework receives 20% of the marks

Technology based Compositions project coursework receives 20% of the marks

A practical examination receives 30% of the marks

Written examination receives 30% of the marks

Costs

Copies of the course textbooks will be bought as required and charged on the school bill at the retail price. CDs for coursework submission and revision are supplied and charged on the school bill. Three additional booklets and manuals covering activities specific to our studios and the course are produced by the department and charged on the school bill at a minimal price.

Entry Requirements

An enthusiasm for the subject and an open mind.

Additional Information

To support pupils throughout the course the department operates an open studio and computer room policy. Students who have passed the studio proficiency test in the third week of term are allowed to use the recording studios at any time through the department booking system. The computer rooms are available throughout the day. Students have access to additional technical help provided by a member of the teaching staff and our technical manager.

Examples of student work are available from the Music Technology Department.

For more info on the course:

<https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/music-technology-2017.html#tab-1>

AS or A-Level

Physics

Exam Board: CIE

The AS & A-Level Physics course builds on the knowledge, understanding and process skills that were developed in GCSE Science or GCSE Physics.

The aims of the course are to:

- sustain and develop the student's enjoyment of, and interest in, physics
- develop essential knowledge and understanding in physics

AS and A-Level Physics is suitable for a student who:

- has an interest in, and enjoy physics;
- wants to find out about how things in the physical world work;
- enjoys applying their mind to solving problems;
- enjoys carrying out investigations by the application of imaginative, logical thinking;
- wants to use physics to support other qualifications or progress onto further studies or employment.

Topics covered at AS Level: *kinematics, accelerated motion, dynamics, forces, work, energy and power, momentum, matter and materials, electric current, Kirchhoff's laws, resistance and resistivity, practical circuits, waves, superposition of waves, stationary waves, atomic structure and practical skills.*

Topics covered at A-Level: *circular motion, gravitational fields, oscillations, thermal physics, ideal gases, uniform electric fields, Coulomb's law, capacitance, magnetic fields and electromagnetism, motion of charged particles, electromagnetic induction, alternating currents, quantum physics, nuclear physics, medical imaging, astronomy, cosmology and practical skills.*

Assessments

AS Level

Paper 1: Multiple Choice 40 multiple choice questions, based on AS syllabus content	Examination 1 hour 15 minutes	31% of AS Level 15.5% of A-Level
Paper 2: AS Level Structured Questions Varied questions that are based on the AS syllabus content	Examination 1 hour 15 minutes	46% of AS Level 23% of A-Level
Paper 3: Advanced Practical Skills The paper requires you to carry out practical work in timed conditions and then answer questions on the question paper	Practical and Examination 2 hours	23% of AS Level 11.5% of A-Level

Students could opt to end their Physics studies at the end of year 12 and they will have a recognized AS qualification.

A-Level

Paper 4: A-Level Structured Questions Varied questions that are based AS and A-Level syllabus content	Examination 2 hours	38.5% of A-Level
Paper 5: Planning, Analysis and Evaluation Varied questions that are based on practical skills	Examination 1 hour 15 minutes	11.5% of A-Level

Costs

A single textbook covering the whole of the A-Level course (AS and A2) costs around £55.

Entry Requirements

Minimum 6 6 at GCSE (Double Award) or 6 or grade B in GCSE Physics. Good maths skills are essential, as the mathematical requirements are significantly above GCSE.

Additional Information

For more information on the course:

<https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-international-as-and-a-level-physics-9702/>

Pre-U

Psychology

Exam Board: CIE

The Purcell School is in the process of seeking an excellent teacher of Psychology to create this new department within the school. We hope to be able to offer Psychology as an option from September 2021, subject to appointment. Until this process is complete, we are unable to confirm what the course will look like, although a sample guide is given below, using information from various available syllabuses.

It should be noted that Psychology is a science-based subject and a strong foundation and interest in the sciences will be invaluable. Whichever course is chosen will require a great deal of dedication to the subject and a need to put in significant work outside of the classroom.

Assessments

A-Level

Paper 1: Foundations in psychology Mandatory content, which may include: <ul style="list-style-type: none"> Social psychology Cognitive psychology Biological psychology Learning theories Memory Attachment Psychopathology Approaches in Psychology Biopsychology Research methods Issues and debates in Psychology 	Written Examination 2 hours	35% of A-Level
Paper 2: Psychology in Context Usually a combination of Mandatory and Optional content. These topics may include: <ul style="list-style-type: none"> Clinical psychology Criminological psychology Child psychology Health psychology 	Written Examination 2 hours	35% of A-Level
Paper 3: Psychological Skills This may include modules on Psychological skills, looking at: <ul style="list-style-type: none"> Methods Synoptic review of studies Issues and debates 	Written Examination 2 hours	30% of A-Level

Costs

As the course has not been finalised we are unable to give an idea of the costs that may be incurred. It is likely that a course textbook will be required and any costs will be recharged to the school bill.

Entry Requirements

No formal entry requirements, though an interest in the sciences and a suitable GCSE science grade would be useful.

Additional Information

For more information on the course please contact z.szafranski@purcell-school.org and you will be added to the list for more information once an appointment has been made.