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# **READING SCHOOL**

SIXTH FORM INFORMATION FOR ENTRY TO YEAR 12 IN SEPTEMBER 2017

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#### Headmaster

#### Mr AM Robson

Deputy Headmaster/Head of Sixth Form Rev C Evans

Heads of Year 12 and 13 Miss S Drummond and Mrs C Fooks

#### **Director of Admissions** Mr C Nicholas

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#### **INTRODUCTION**



Reading School was founded in 1125 and whilst the world around us has changed spectacularly since throughout our history we have remained absolutely resolute in our commitment to the extension of 'sound learning' and to stretching the understanding and aspirations of all those in our community. Our aim is to provide a vibrant learning environment that will allow students to make the most of their talents, enabling them to excel in academic, sporting, cultural and artistic arenas. We believe that studying in the sixth form at Reading School should be a springboard to an outstanding university education, a fulfilling career and a life of learning.

Academic standards and expectations are very high at Reading School and we believe that the culture of aspiration and ambition found in our community helps every student to achieve their best. There should be no-one in any sixth form class who is not striving to achieve top grades, to contribute to the learning of their peers and to demonstrate leadership to junior students.

Sixth form studies are just the beginning of a lifetime of further stretching study, learning and leadership.

Our ethos at Reading School encourages students to stretch the boundaries of their understanding through independent learning, discussion, team work, active research and advanced extracurricular study groups. At the same time, in every department students enjoy the support of highly qualified and exceptionally gifted teachers. Our track record demonstrates the truly remarkable dedication of our sixth form team led by Miss Sarah Drummond and Mrs Caroline Fooks (Heads of Year 12 and 13).

We expect teaching and learning in Reading School to go far beyond the level of the public examinations and to expose our students to questions more commonly experienced at University,

an ambition demonstrated through our success in international academic competitions as well as outstanding numbers of students who move on to study the competitive courses in Russell Group Universities or Oxbridge.

Whilst our Academic excellence may be what first attracts students and their families to Reading School, we would argue that our emphasis on integrity and leadership are at least as important. Student leadership plays an integral role in our shared life together through the student council and the prefect team. The student body is led by the School Captain and aided by his deputies all of whom are selected from within the Year 12 group in the summer term. Our desire to encourage integrity and character is embedded in our programme of weekly chapel services, PSHCE, careers consultations, community service, work-placed learning and extra-curricular activities. We are convinced that it is the formation of character that ensures students leaving Reading School are equipped to use their gifts to positively shape the world around them.

The purpose of this information booklet is to help applicants to the Sixth Form, whether from Year 11 at Reading School or from other schools, in making decisions about their future. However, such a brief overview cannot give a complete picture and we would encourage prospective Sixth Formers to talk to teachers, tutors and current Sixth Form students as well as attending our Open Afternoon.

Please do speak to the Heads of Year 12 or 13 or myself if you have any further questions.

Best wishes,

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Rev Chris Evans Deputy Headmaster/Head of Sixth Form

#### **CURRICULUM**

This information booklet illustrates the subjects on offer for study in the Sixth Form and the pathways available to students. All of the subjects we offer are two year linear A Level courses. While our policy is to make every effort to accommodate all combinations of A Level subjects, places on some subject courses may be limited due to staffing constraints. In exceptional cases it may not be possible to run a subject if there are insufficient students applying for it.

#### **Academic Pathways**

The linear A-levels are very different from the modular AS system. It is imperative with linear A-levels that students start courses of study that they are committed to completing, and, as a consequence we encourage every student to think very carefully about their options and find out as much as possible about the subjects you might want to study.

The priority for every student in considering which pathway they adopt is to reflect on which route is most likely to achieve top grades. For example attaining 3 A\*s is likely to yield better university offers than 4 A grades.

We offer three academic pathways:

#### Three + A-Levels

Many students have a clear sense of what their intended pathway into Higher Education is and can clearly identify three A-Levels that suit their intended future studies. We believe that students from Reading School should expect to offer more than 3 A-levels to prospective employers or universities and therefore expect all students to undertake additional activities, perhaps studying an Extended Project, developing a portfolio of work related learning or opting for additional studies that do not lead to a full fourth A-Level.

#### Four A-Levels

For the majority of students 4 A-Levels is a more appropriate option than three or five, because a fourth A-Level with a predicted top grade will be a distinguishing feature on a university application. Students who wish to apply for early entry courses at university (eg. Medicine, Veterinary Medicine, Dentistry or Oxbridge applications) should consider four A-levels as a minimum expectation.

#### **Five A-levels**

Students with over 80/100 raw marks in Additional Mathematics or A<sup>^</sup> in GCSE Further Maths may study Maths and Further Maths in one option block, allowing them to study three further A-Levels. This is only a sensible option if each of the 5 A-Levels studied is on track for an A<sup>\*</sup> grade. There is very limited value studying five A-levels if at least three of them are not awarded top grades.

Individual students will be advised on which academic pathway to follow based on their performance in their GCSEs. Further details regarding sixth form pathways will be provided at the Open Evening.

#### **Decision making**

When making decisions about sixth form studies we encourage students to consider their own strengths, and interests, the combination of subjects they pursue, requirements for Higher Education courses and the breadth of skills they demonstrate.

#### What are your Strengths?

The standards at A Level are a significant jump up from GCSE, and so it is important to identify the subjects you are good at. What are your current strengths? Are you better at more practical subjects, or

those that involve more theory? Are you good at subjects that are more essay based? Think about your strengths, and look carefully at the subject details.

#### What do you enjoy?

If you enjoy a subject now, then that is usually a good guide to whether you will enjoy it at A Level, even though GCSE and A Level may be rather different. It is vital that you choose subjects you will enjoy or can at least live with. A word of warning: ignore the teacher factor – is it the subject you enjoy, or is it just that you get on well with your current teacher?

#### Do some subjects mix well?

We try very hard indeed to make sure that as many people as possible can have their first choice combinations – occasionally though we may have to ask you to revise your choice, either because we simply cannot timetable it, or because we feel that it is not a sensible combination.

#### Do I need particular subjects?

Some students already have clear career goals (although at this age many do not). Many careers and university courses do not need particular subject choices at this stage, but some do – look at the pages entitled 'Looking beyond A Levels'. If you are in doubt about whether you need to choose a particular subject, do ask for advice.

#### Do I need a range of subjects?

For students studying more than three A-Levels it is often beneficial to study a course that shows breadth. This will never be a pre-requisite for a university course, but most university courses are based on offers for grades across three subjects, and a fourth can often therefore be chosen for personal interest and maintaining a skill which could be useful to a future employer (eg. a language or performing art). This is only the case for students who are already achieving top grades in the courses that are most relevant for their degree.

#### What are facilitating subjects?

The Russell Group guide (<u>http://russellgroup.ac.uk/informed-choices</u>) to making decisions about post-16 education suggests that some subjects are sometimes referred to as 'facilitating' subjects. It is suggested that by choosing 'facilitating' subjects at advanced level, you will have a much wider range of options available to you at university. Subjects that can be viewed as 'facilitating' subjects are:

- Mathematics and Further Mathematics
- English Literature
- Physics
- Biology
- Chemistry
- Geography
- History
- Classical or Modern Languages

#### **Enrichment Subject**

Study of the Extended Project Qualification (EPQ) provides an opportunity for an in-depth investigation on a topic of their choice. This is particularly useful for students who have a clear idea of a university course and wish to demonstrate advanced detailed knowledge and research skills.

#### MINIMUM SUBJECT ENTRY REQUIREMNTS

#### Art

GCSE Grade A in Art.

#### **Biology**

GCSE grade A in Biology or A in both Science and Additional Science.

#### Chemistry

GCSE grade A in Chemistry or A\* in both Science and Additional Science.

#### **Classical Civilisation**

GCSE grade A in at least one of Ancient History or History or a 7 in English Literature.

#### **Computer Science**

GCSE grade 7 at GCSE Maths (or grade A for IGCSE). Computer Science GCSE is not a requirement, but if it has been studied then a B is required.

#### **Economics**

GCSE grade 7 in Mathematics. Economics GCSE is not a requirement, but if it has been studied then a B is required.

#### **English Literature**

GCSE grade 7 in both English Language and English Literature.

#### **EPQ**

GCSE grade 6 in both English Language and English Literature.

#### French

GCSE grade A in French.

#### Geography

GCSE grade 6 in both English Language and English Literature. Geography GCSE is not a requirement, but if it has been studied then a B grade is required.

#### German

GCSE Grade A in German.

**Spanish** GCSE Grade A in Spanish.

#### **History**

GCSE grade 6 in both English Language and English Literature. History GCSE is not a requirement, but if it has been studied then a B grade is required.

#### Latin

GCSE Grade A in Latin.

#### **Mathematics**

GCSE Level 7 or a grade A for any candidates who are studying IGCSE.

#### **Further Mathematics**

For Mathematics and A Level Further Mathematics in 1 option block a GCSE level 8 or 9 (or grade A\*) at GCSE and a mark of at least 80 in the FSMQ (Additional Maths - OCR 6993/01) or an A^ grade in GCSE Further Mathematics.

For Mathematics and AS Level Further Mathematics in one option block a GCSE Level 8 or 9 (or grade A\*) and either a grade A or B at FSMQ (Additional Maths - OCR 6993/01) or a GCSE grade A in a Further Mathematics.

For Mathematics and Further Mathematics in 2 option blocks a GCSE level 8 or 9 (or grade A\*) is required. No additional qualification is needed.

#### **Music**

GCSE grade A in Music and Grade VI on an instrument. For candidates who have not studied GCSE Music Grade VII on an instrument and Grade VI theory is acceptable. A Level music also requires that students are willing to take a leading part in a range of the School's extra-curricular activities.

#### **Physics**

GCSE grade A in Physics or A in both Science and Additional Science. GCSE Level 7 in Maths is also required, (or grade A for IGCSE).

#### **Theatre Studies**

GCSE grade 6 in either GCSE English Language or English Literature. Drama GCSE is not a requirement, but if it has been studied then a B is required. A genuine interest in Theatre is essential.

#### **Option Blocks**

Final decisions about option blocks will be made in December 2016 once illustrative survey data has been processed. Initial options blocks will be published online in November but these are subject to change. For the sake of illustration last year's option blocks were:

Block A	Block B	Block C	Block D
Economics	Biology	Art	Biology
Geography	Chemistry	Chemistry	Classical Civilisation
Mathematics	Latin	English Literature	Economics
Maths & AS Further Maths*	Computer Science	Geography	English Literature
Maths & AS Further Maths*	Economics	German	French
Extended Project – AS	History	Physics	Further Maths
	Mathematics	Spanish	History
	Music		Physics
	Theatre Studies		Extended Project - AS

If a subject is oversubscribed and all sets are at full capacity, students with the lowest grades may be asked to choose an alternative subject. Admission into the sixth from and achievement of subject requirements is therefore not a guarantee that first choice subjects will be available.

#### **Admission Arrangements**

Applications for day and boarding places must be made directly to Reading School for external applicants only. Current students are requested to apply by making option choices on sharepoint. The window opens on 1<sup>st</sup> December 2016 with a closing date of Friday 27<sup>th</sup> January 2017.

#### **Entry requirements into the Sixth Form**

For entry into the Sixth Form students must have achieved the equivalent of a total of at least 54 points (A\*=8, A=7, B=6 etc) from 8 GCSE subjects and at least a grade 5 at GCSE in Mathematics and English Language or a DfE recognised equivalency. (In new GCSE qualifications levels 1-9 count for an exact

equivalency in points.) In addition, it is expected that prospective entrants will have obtained a grade B, or better, in the subjects to be studied in the Sixth Form.

#### Inclusion

To any student with special educational needs or a disability, who is applying for a place at the School, evidence should be included of the need or disability so the SENDCO can assess the applicant appropriately.

#### **Subject Availability**

The following notes have been compiled by staff responsible for the A Level courses being offered in our Sixth Form. Very occasionally we cannot run a course if there are not enough students to make it viable.

#### **Specifications**

#### Art

The specification followed is AQA A Level Art and Design: Art, Craft and Design.

The focus of Art at A Level is to extend and develop skills learnt at GCSE. The course will provide you with many exciting opportunities to explore ideas in a wide range of media and forms. There are many elements you will master as the course progresses, such as being confident in taking creative risks, learning from and resolving mistakes, creating personal responses to project starting points, and developing and refining your practical skills. Additionally, working independently, and being able to contextualise your own practice through studying and understanding the work of other practitioners is of vital importance.

To be successful this course will require you to be independent and commit to extended learning outside of the classroom; it is hard work from the start, however, the more you put in, the more you will enjoy yourself, and the more rewarding the course will be.

Unit 1: Personal Investigation

- September 2017 February 2019
- Portfolio of practical work showing a range of media and approaches to making
- Coherent and logically structured extended written response of between 1000 and 3000 words of continuous prose.
- 60% of A-Level

Unit 2: Externally Set Assignment

- February 2019 May 2019
- Response to an externally set assignment
- Preparatory period + 15 hours supervised time
- 40% of A –Level

#### **Biology**

Biology is a challenging subject at A Level. It is a subject of continual advance and change with a high output of major discoveries that have significant impacts on all aspects of society. Students are encouraged to keep up to date with these many new issues and to gain an appreciation of the dynamic nature of science.

Biology not only encompasses aspects of the physical sciences and mathematics related to the living world, but also provides an opportunity to consider the ethical issues arising from the rapid advances in the life sciences. The staff place considerable emphasis on the need for students to be in control of their own learning and students are expected to have the ability to work on their own initiative. In order to achieve good marks in the assessment of practical skills many lessons will cover the practical aspects of

Biology. Students are encouraged to consider extension work, such as a Nuffield Bursary, and suitable students will be selected to enter the British Biology Olympiad Competition. Currently many medical schools request Biology as an essential component of their entry requirements (for more details see <u>www.medschools.ac.uk</u>). However, it should be noted that many of the candidates who achieve the highest grade in A Level Biology combine it with non-scientific subjects.

The specification followed is OCR Biology A (J420 A Level).

- Module 1 Development of practical skills
- Module 2 Foundations in biology
- Module 3 Exchange and transport
- Module 4 Biodiversity, evolution and disease
- Module 5 Communications, homeostasis and energy
- Module 6 Genetics, evolution and ecosystems.

#### **Chemistry** (OCR GCE A Specification)

As well as being a fascinating subject in its own right, Chemistry is the cornerstone of medicine, veterinary studies, textile and polymer science, molecular biology, food science, geology and a host of other subjects. The A Level courses contain a good balance of practical work supported by a carefully structured theoretical framework. The course is designed to cover the needs of many students. In addition to the obvious chemical careers, potential physicists or engineers will find much that is stimulating and challenging. There are several topics of direct relevance to the would-be medics, indeed a top A Level grade in Chemistry is essential for acceptance into a Medical School. In fact anyone who finds Chemistry interesting, no matter what their future plans, should at least investigate the subject and examine the text books and course material.

The syllabus followed is OCR Chemistry A and is divided into 6 modules over two years. These include aspects of physical, inorganic and organic Chemistry. Depending on the numbers involved we expect to divide students into 4 or 5 sets. Tests usually occur every two to three weeks in order to assess a student's progress and, in the fifth term, all boys follow a comprehensive revision programme. It is the Department's policy to enrich its students' experience and expose them to some of the applications of chemistry in industry. Arrangements are made to attend lectures and demonstrations and industrial visits are organised as opportunities arise. We encourage students to participate in competitions. An award, donated by the Society of Chemical Industries, is given to the student who is judged to be the highest achiever in Year 12. Students from both years are encouraged to enter the Chemistry Olympiad and a number have reached the final stages. Public examination results over the last eight years have been extremely good with a large majority of students achieving A\*, A or B grades in the subject.

#### **Computer Science**

(AQA 7517 Computer Science)

Paper 1 - 2 hours 30 minutes on screen exam testing students programming ability. The questions asked will be based on a preliminary program available to students prior to the exam. 40% of the A Level Paper 2 - 2 hours 30 minutes written paper based on theory topics. 40 % of the A Level NEA - 20 % of the A Level. Assesses student's ability to use the knowledge and skills gained through the course to solve or investigate a practical problem.

Computer Science sits at the crossroads of creativity and technical ability. It is a myth that computing is repetitive and mechanistic and you will not succeed if you cannot apply science in a creative manner. A key skill developed in Computer Science is that of abstraction, the breaking down of complex problems into the essential components. Programming is a key skill but not all that we do in Computer Science. Learning more about how our electronic infrastructure operates and where new standards are taking us firmly roots your understanding in the context around us, offers you the opportunity to apply knowledge

in practical problem solving scenarios, whilst developing your ability to deal with complex situations in a logical and efficient manner.

Success at this course will require the student to be independent and commit to extending learning outside of the classroom. Due to the nature of the subject it will be necessary for the student to have a home computer in order to fully engage with the material and concepts covered.

Prior programming experience whilst desirable is not essential.

#### **Classical Civilisation**

The study of Classical Civilisation equally allows students to explore a new subject area or to extend their interest within this field. It is a very accessible course, as students explore the history and cultures of the Romans and Greeks, using English translations of the original source material. Students have succeeded in this subject regardless of previous experience and a good proportion continue with the subject beyond A Level. The OCR course usually provides the opportunity to study both Ancient History (the Age of Augustus) and Classical Literature (including Virgil's Aeneid and Homer's Odyssey, both epic tales of love, battles and blood, as well as the highly acclaimed Roman Comedies). Therefore it complements the arts subjects, particularly History and English Literature; whilst providing excellent breadth as a subject in its own right.

#### **Economics**

#### (OCR specification H460)

Economics is a lively and evolving social science that studies the choices individuals, businesses, governments and entire societies make. Economics helps you to look more deeply into the world around you, allowing you to develop a broader appreciation of how and why it functions as it does. It can also give you new perspectives on some of the most pressing and challenging problems facing the world today; the Euro debt crisis; the operation of the financial markets; growing income inequality; unemployment and underemployment; the EU single market; action to reduce carbon emissions; interest rates; fiscal austerity; migration and the impact of an ageing population – to name but a few. The two main components of the subject are: Microeconomics involves a study of the behaviour of consumers and businesses, analysing how markets work and may often fail. Closer examination of housing, energy, labour, financial, health and education markets help students explore the real-world application of microeconomic theories and concepts. We also look at the theory behind the operations of firms and business enterprises, and the rationale for government intervention. Macroeconomics is the study of the whole economy – topics such as inflation, unemployment, economic growth, the balance of payments, government policy and international trade are all key issues. Is the government meeting its major economic objectives? Could UK government policy be more effective? The A Level Economic course is a two year 'linear' course and is structured to develop both microeconomic and macroeconomic concepts and theories in a variety of contemporary contexts. The course is externally assessed by examinations at the end of year 13, and quantitative skills are embedded within the assessment. Students studying Economics combine it with subjects across the curriculum and it complements mathematics, sciences, humanities and languages.

Many Reading School students go on to study Economics related courses at undergraduate level; in the last two years over 50 students have entered top UK universities (including Oxford and Cambridge) to study Economics, Economics and Management, PPE and Economics and Finance.

#### **English Literature**

(OCR 'reformed 2015' specification H472)

Whether you are a committed literature lover, a budding writer, or even a maths/science purist, the English Department offers a course which will engage your intellect and serve your best interests. Carrying on studying English Literature to A Level makes you a much better university and employment

candidate: it wills sharpen your skills of analysis, make you better constructors of argument and discussion, and ensure you can sprinkle your influential ideas with magic fairy dust.

English Literature is regarded as a 'facilitating subject' by universities. This means that it is a discipline which opens up a wide range of courses to you for study at undergraduate level. Regardless of which academic discipline you choose to follow at university, A Level English Literature will be seen as a helpful an worthwhile stepping stone.

A Level English Literature is one of the new two year linear qualifications. It comprises of three components, all of which will be completed at the end of Year 13: two 150 minute exams (worth 40% of the overall qualification each) and a 3,000 word coursework folder (Worth 30% of the overall qualification). Texts which are currently being considered for study from September 2016 include 'Hamlet', 'The Great Gatsby' and 'Paradise Lost'.

#### Geography

Why should you study Geography? Geography is a hugely popular A Level choice nationally, as well as in Reading School. Teaching is characterised by a lively approach, aimed at exploiting the geographer's natural curiosity and concern about major contemporary issues.

It is Geography's ability to integrate the study of Earth's places, peoples, environments and societies that makes it so relevant to the understanding of the increasingly interconnected world in which we all live and work.

Geography at university and beyond

- Cambridge and other leading universities see Geography as a challenging academic discipline.
- Listed in the Russell Group 'Informed Choices' guide as a facilitating subject, preferred by admissions tutors for its contribution to preparation for university study.
- Accepted by universities as an entrance qualification for both Science and Arts courses, as well as for vocational courses such as Law, Medicine and Veterinary Science.
- Skills and knowledge are useful in careers such as law, financial services, computing, management consultancy and development officers.

The Geography Department at Reading School is staffed with experienced, enthusiastic teachers who are passionate about the world and the role people can play within it. The AQA A Level course comprises of a Physical Geography paper (40%), a Human Geography paper (40%) and a controlled assessment (20%). The topics covered in each section are as follows: Physical Geography – Coastal systems and landscapes, Hazards and Carbon and water cycles. Human Geography – Changing places, Global systems and governance and Resources security. Controlled Assessment – a Geography fieldwork investigation following a curriculum fieldtrip which will be completed at the beginning of Year 13.

#### History

(AQA specifications HISC and HIS2R)

History is an exciting, interesting and constantly stimulating subject. History is a highly regarded subject for courses at degree level, including medicine, as well for a wide variety of professions. It is the most popular degree amongst MPs, popular with lawyers and, at A Level, it is a fantastic complement to scientific courses as it trains students to take in information from a range of sources. Within our experienced and innovative department there is also a determination to make the course as relevant and enjoyable as possible.

Students will study two taught modules for A Level History. Firstly, they will study the Cold War, 1945-1991. Many students will have touched upon the relevant global themes of the 20<sup>th</sup> century in their GCSEs and we build upon this by investigating the Cold War in fascinating depth. The students have to fully immerse themselves in the political drama, the apocalyptic tension and ideological suspicion as this depth study gets to the heart of one of the most interesting human dramas the world has seen; one which continues to affect us today. Secondly, they will study the Tudors, 1485 – 1601. England's most famous family have continued to ignite imaginations across the world for a reason: they carried out one of history's most exciting soap operas and they continue to matter to this day. Henry VII's successful invasion, Henry VII's Break with Rome and subsequent creation of the Church of England, Mary's burning of heretics and Elizabeth's defeat of the Armada are just the headlines, behind which lie dark plots, dastardly rebellions and delicious intrigues. Both these modules are taught by teachers who love the content and know the exam board's demands, and studied by students who became deeply passionate about the subject.

As part of the course, students will also complete an independent investigation into an historical issue. The three they can choose from are: the Crusades, the American Civil War or the French Revolution. This extended piece of writing will involve bringing together a vast array of evidence that students' have located themselves and reaching substantiated conclusions.

#### Latin

The study of Latin helps to develop logical thinking, as well as enhancing analytical and evaluative abilities.

As such, many students that opt for Latin do so to complement the Maths/Further Maths and Physics subjects that require many of the same skills.

At the same time the study of literature augments other subjects, most particularly English Literature and History; the study of this language obviously provides the basis for other Romantic Languages. During the course students will have the privilege to study some of the greatest Classical works, as well as exploring the nuances of translating them. Latin is an extremely well regarded A Level subject, however the most important reason for taking Latin is that the student really enjoys the course! On account of its versatility the study of Latin can lead directly to a whole plethora of careers, including the civil service, law, computer programing, journalism or accountancy; and indirectly to becoming a mathematician, scientist, medic or engineer.

The OCR course roughly equates to 50% language and 50% literature. Students will study both poetry and prose.

#### **Mathematics and Further Mathematics**

Certification Code Mathematics 3890 (AS) 7890 (A2) Examination Board – OCR Further Mathematics 3892 (AS) 7892 (A2)

Mathematics is an extremely popular choice at AS and A Level providing, as it does, an intellectually stimulating and analytically rigorous course that develops a systematic, yet intuitive, method of tackling problems that is highly regarded by both Higher Education and employers.

Often described as 'The Queen of the Sciences', Mathematics provides the backbone to numerous disciplines. The majority of students who opt for Mathematics choose it as a 'service' subject to enable them to pursue a course in a science-related subject or the social sciences such as Economics, Actuarial Science and Accountancy. However, a significant number do go on to read Mathematics at university.

There are four courses offered in the Sixth Form to AS or A Level: AS Level Maths, A Level Maths, A Level Maths plus AS Level Further Maths, A Level Maths plus A Level Further Maths (in either one or two option blocks).

The courses followed in the Sixth Form lead to the OCR qualifications. These are examined in six modules for A level with another three for AS Further maths, and three more for the full Further Maths A Level.

#### A Level:

To embark on an A Level Maths course it is essential to have a complete grasp of GCSE work, in particular an ability to manipulate algebra. Experience shows that candidates who achieve less than a grade A at GCSE struggle to succeed at A Level. For this reason a grade A at GCSE is a requirement.

#### AS Level Further Maths:

Those students who have successfully completed the Free Standing Additional Maths Qualification have clearly already demonstrated ability in tackling A Level work. For these pupils the option of either AS Level Further Maths or A Level Further Maths is available. For boys who have studied GCSE and Add Maths at Reading, the recommendation is to study A Level Maths and AS Further Maths will be made by the school. Occasionally students without Additional Maths successfully pursue one of these courses; advice should be sought by such students before embarking on such a course. Students joining Reading School who wish to take A Level Maths and AS Further Maths should contact Dr J Matthews, Head of Mathematics.

#### A Level Further Maths:

This course can be studied in a single block, or as a double block option. Very able mathematicians have the option of pursuing this course from a single block. These boys should have been in top set for Year 11 and will achieve grade A\* for GCSE and grade A for Add Maths. They should also be recommended by their Y11 teacher for this course. Boys joining Reading School for A Level study will need to have gained A\* at GCSE and a higher qualification such as an Add Maths grade A in order to study within a one block option. Any such student must also contact Dr Matthews as soon as possible in order to discuss this, together with any additional preparatory work that needs to be done before embarking on the course.

Further Maths is also offered in two blocks for boys who will benefit from a slower pace. Such students will need to have an A\* GCSE and an Add Maths A or B qualification if they have studied at Reading School. Boys joining the school at this stage without the required qualifications should seek advice from Dr Matthews if they wish to study a full Further Maths A Level in two blocks.

There are additional opportunities offered to sixth form mathematicians. The Senior Maths Challenge, compulsory for all Further Maths students and optional for others, gives boys the chance to progress to the Mathematical Olympiads and demonstrate their prowess. A team challenge is fun if selected and various other master classes may also be on offer during the two year course. Students wishing to study Mathematics at Cambridge University will be required to sit 'STEP'. The AEA is another examination beyond A Level and is required by some Universities. Help and tuition is available within the department for these higher levels.

#### Modern Foreign Languages - French, German and Spanish

'A different language is a different vision of life' Frederico Fellini, Italian film director.

#### Why Study Languages?

Learning a language is a challenging and rewarding experience. You will have the opportunity to interact with people from many backgrounds whilst developing your verbal, written and presentation skills. Being able to engage directly with native speakers, whether on holiday or whilst working for a multinational company, will enable you to see things from their perspective and gain insight into their culture and society. It is our intention to offer students the opportunity to spend time in the target language country in the form of a study visit or a work experience placement. The skills involved in learning a language lend themselves to the world of work, enabling you to demonstrate your presentation skills, adaptability, open-mindedness and creativity.

#### What does the course involve?

To succeed you need to develop your knowledge of grammar and extend your range of vocabulary. Following the AQA course you will study social issues and trends such as modern and traditional values, cyberspace, equal rights, artistic culture (like modern da idols or cultural heritage, or cultural landscape).

You will develop your reading and listening skills so that you can access information and ideas on a range of topics. You will be able to develop your oral fluency and conversational skills. You will be encouraged to develop the ability to communicate your ideas in written tasks in a clear and logical manner. The course encourages you to reflect on important issues and gives you the opportunity to talk about topics which are of interest to you and which you have researched.

#### Music

Music in the Sixth Form currently follows the OCR specification. The course is divided into the disciplines of performance, composition and listening, but there is naturally a considerable increase in the rigour of these areas when compared with GCSE.

Through the various genres, styles and eras contained in our Areas of Study they will explore musical context, musical language and performance and composition skills. OCR's A Level in Music has options and pathways designed to appeal to, and cater for, a wide range of interests, instruments, personalities and directions.

Candidates produce both foundational and advanced compositions, balancing both creative and technical aspects, which makes up 3/8 of the qualification. They also produce two performing recitals, which are assessed on video by an external examiner, which makes up a further 3/8 of the total. The remainder of the course develops listening and historical understanding, and is assessed by written exam at the end of the course.

Students seeking to take music at A Level should be of at least Grade VI standard on their first instrument, and have achieved a grade A at GCSE level. If the exam has not been taken, students are asked to provide a letter of recommendation from their teacher. In addition, good fluency on the keyboard and ABRSM Grade V theory are strongly advised. It is expected that all students who opt for A Level music sill contribute in some way in the school's extensive extra-curricular programme.

#### Physics

(AQA A-Level Syllabus 7408)

Physics is perhaps the most fundamental of all the sciences, seeking to explain the science of stellar evolution, the nature of the fundamental particles that form the "fabric" of the Universe and everything in between! Physics is a challenging and interesting subject which will help you to understand the world and universe around you! A Level Physics is a vitally important qualification for many careers.

Some students go on to study physics at university. This may lead to a career in research and development, either in a university or in industry. High temperature semiconductors, a better understanding of sub atomic particles and more efficient ways of storing energy for cars are just three areas of research being pursued at the moment.

Perhaps the majority of those who study A Level Physics do so in order to apply their physics knowledge in another subject areas at university. Examples of this are the many branches of engineering, electronics and meteorology. For these careers, A Level Physics is essential. Other students will use their knowledge, practical and analytical skills as a pathway to follow a career in veterinary science, medicine, dentistry or biochemistry. Physics students are also very well positioned to take up law and accountancy and finance positions because physics is highly regarded by universities as a test of problem-solving ability and logical thought.

At Reading School we follow the AQA A-Level syllabus (7408). The core content consists of the following topics: Measurements and their errors, Particles and radiation, Waves, Mechanics and materials, Electricity Further mechanics and thermal physics, Fields and their consequences and Nuclear physics. Additionally there are the following optional topics: Astrophysics, Medical physics, Turning points in physics, Engineering physics and Electronics.

A level Physics is a two year 'linear' course which is examined externally at the end of year 13. A very broad practical approach is built in to the syllabus which allows students to develop their scientific analytical skills to a very high level. The course has a high level of mathematical content which students will learn how to use in theoretical and practical situations.

#### **Theatre Studies**

The course consists of a balance between practical and written work. One of the most exciting aspects of the AQA A Level course is that you are given several opportunities to work on a production as performer, director or designer. This work is accompanied by a working notebook and a reflective report but by and large, they are performance led components which in total are worth 60% of your final grade. In one component you devise your own piece of theatre and for the other component you work on the presentation of three extracts from different plays. The choice of material is very wide and governed by you.

The written paper includes the study of two set texts from a performance perspective and analysis of live theatre seen. The emphasis at A Level is very much on theatre as a performance art and everything is explored from a practical perspective. The plays are taught not as literary texts but as productions to be bought alive which makes the subject vibrant and interesting. You will be asked to form opinions and to analyse every aspect of the work, a useful and difficult skill to master. Visits to the theatre are vital and the focus is on seeing professional work. We will experience a wide variety of style and genre throughout our studies. Most importantly it is a great deal of fun!

#### **Looking Beyond A Levels**

Before embarking on A Level study many students should have a sense of the pathway ahead of them regarding future study or employment. It is much easier to achieve top grades at A Level with a clear sense of how your current studies may benefit you in the future. Listed below are a number of degree courses (though it is by no means exhaustive), together with the A Level subjects commonly required or expected. It must be emphasised though, that rarely do all higher education establishments have the same requirements, and very rarely is there no flexibility at all. On the other hand you must recognise that if you have an unconventional combination of subjects for a particular course you may put yourself at a disadvantage with respect to others in the university selection process. You may wish to consult Careers staff to check details. Please email <u>careers@reading-school.co.uk</u> to book an appointment.

A further consideration may be your proposed career direction beyond university and you may wish to consult a range of publications many of which are available in the LRC. Some degree courses such as those in Science and Medicine may lead to specific occupations while others, more especially in Arts subjects, are less 'vocational'. However, you should be wary of letting this aspect totally determine your A Level subject choice and remember that the quality of both A Level passes and a degree are widely regarded as a measure of mental calibre in the professions, commerce and industry. The majority of graduates rarely employ their degree information but do employ their cumulative skills. In other words, whilst you may wish to keep an eye on the future there is much to be said for choosing subjects in which you are likely to be successful.

#### **Agriculture, Forestry, Horiculture:**

Chemistry usually with Biology and/or Physics/Maths.

#### Anatomy, Pharmacology, Physiology:

Chemistry, usually with Biology and/or Physics/Maths.

#### **Archeology:**

History, Classics, Geography, English or a Science may be preferred. Two sciences needed for Archaeological Science courses but also many courses with no specified subjects.

#### Architecture, Building, Estate Management, Surveying:

Maths and/or Physics required or preferred for some courses. Art sometimes a requirement and many architecture schools prefer it. Portfolio of art work often requested.

#### Art:

Variation between courses and institutions: Portfolio needed in many cases.

#### **Biochemistry**:

Chemistry required and Biology usually preferred: one or two Maths/Science subjects required.

#### **Business and Management Studies, Commerce, Accountancy:**

Maths is either essential or desirable. There is a wide variety of courses under this heading: some have a scientific bias, others show a preference for Economics, Business Studies, Geography, English or a Foreign Language.

#### **Chemistry, Metallurgy, Chemical Engineering:**

Chemistry, Physics and Maths is by and large the best combination for this group, plus Further Maths for some courses.

#### **Computer Science, Computer Studies:**

Maths, or Double Maths, with some preference for Physics, Computer Science would now be expected given recent curriculum reforms at A Level.

#### Drama:

English, theatre Studies or Drama, a Language and History are relevant for some courses.

#### **Economics**:

Economics is desirable and Maths required for most universities. (For Oxbridge and several of the most selective universities an A\* at A Level Maths is required and AS/A Level Further Maths is desirable.)

#### **Education:**

One A Level usually required in the main subject of choice, plus two other subjects. A broad range acceptable.

#### **Engineering:**

Maths and Physics at A Level, with Chemistry or Computer Science frequently desirable. Chemistry at A Level for Chemical Engineering. Further Maths is desirable for some courses.

#### **English:**

English with two other arts subjects. Modern Language is required for joint courses with languages.

#### **Environmental Sciences/Studies:**

Biology and Geography along with a range of other Sciences. Maths may be required in some courses.

#### **Geography:**

Geography, with almost any other two subjects, though Maths or a Science required for BSc Courses.

#### **Geology:**

Chemistry, Maths and Physics are most commonly preferred. With two Sciences, an Arts subject will often be considered for a third A Level.

#### **History:**

History, with two other Arts subjects. A Science subject or a Modern Language may be considered for a third A Level.

#### Hospitality/Hotel Management/Food Science and Technology:

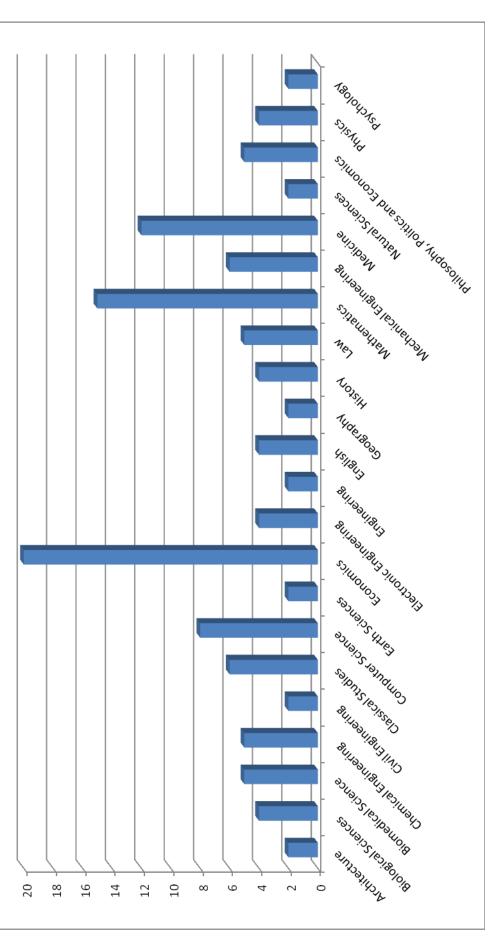
A science based A Level would be useful for Food Science.

#### Law:

A very high standard is required in three subjects, at least one of which should involve writing essays.

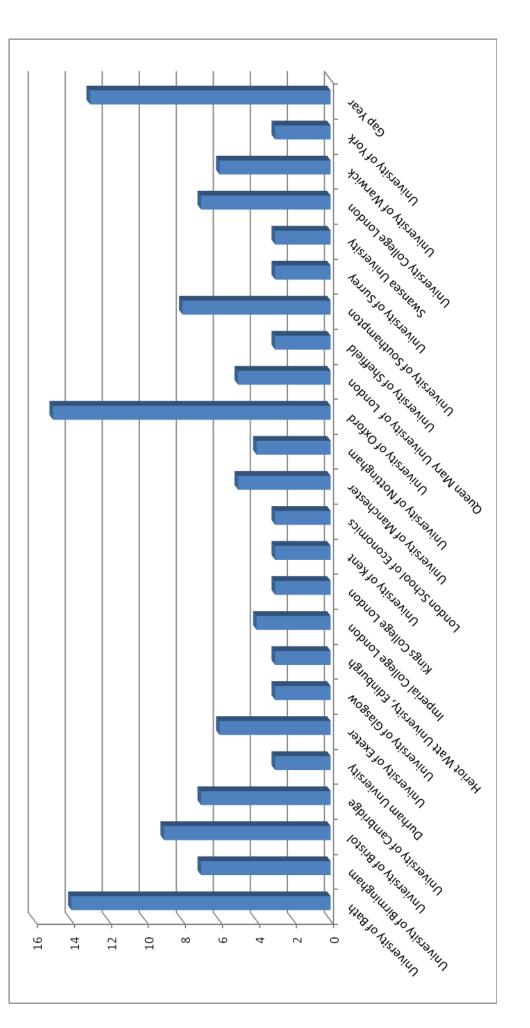
Mathematics, Statistics: Maths with Further Maths highly desirable or essential for some courses, with some preference for Physics.





Chemistry, Dram and Theatre Arts, Environmental Science, Management (Accounting and Finance), Marine Biology, Neuroscience, Paramedic Practice, Plant One student also went to study each of the following subjects: Accounting and Finance, Actuarial Science, Aerospace Engineering, Ancient History, Asian and Middle Eastern Studies, Biochemistry, Biology, Biomaterials for Biomedical Sciences, Bioveterinary Sciences, Business Economics, Business Management, Biology





Loughborough University, University of Leeds, University of Leicester, University of Liverpool, Plymouth University, Royal Holloway University, Royal Veterinary One student also went to each of the following universities: Aberystwyth University, University of Brighton, Cardiff University, Coventry University, College, University of St Andrews.

### The Sixth Form Agreement

#### What the School agrees to:

## Sixth Form students at Reading School can expect the school to support them through many opportunities to learn and grow

- to offer a first-class education, which will challenge you to achieve your very best academically, as well as giving you the opportunity to explore existing and newly discovered talents through varied extra-curricular opportunities;
- to let you grow as an individual in a happy and caring environment where you will be supported in all that you do;
- to inform you about your progress in the Sixth Form and about the opportunities available at 18-plus;
- to make the School's expectations clear and consistent for all, with due regard for preparing Sixth Formers for adult life.

#### What you agree to

- The school can expect you to enter the Sixth Form as young adults within the school community and understand the importance of acting as role models;
- To enjoy the opportunities and privileges, you are expected to set an example to the rest of the school in your studies and in all other aspects of life in the School community;
- To challenge yourself in all that you do, and aim to leave the school with life changing qualifications and a breadth of different skills and experiences, ready to make a positive difference to the world.
- To bring the correct equipment to lessons
- To spend adequate time on your work as advised by your teachers
- To complete homework and coursework on time
- Attend all external examinations punctually. (If you do not attend an examination without good reason you will pay the examination fee.) All resits must be paid for in advance.
- Respect the academic expertise of subject staff and recognise that predicted grades made in Year 13 are not subject to negotiation.

## We expect that you are responsible for your own learning and adopt the following attitudes:

#### Positivity

- be a positive influence on others around you
- be confident in what you can do
- be enthusiastic learners

#### Proactivity & Independence

- ask questions when you don't understand
- · learn from your mistakes
- · take time to review feedback and work out how to improve next time
- bring your own ideas and information to lessons
- be eager to participate in class discussions and activities
- be inquisitive and have an open mind

#### Ambition

- present work well and take pride in it
- complete all work to the best of your ability and on time
- be eager to try new ways of learning and go outside of your comfort zone
- be prepared to tackle difficult problems and activities

#### Consideration

• help and encourage others to learn when they are stuck or confused

- look after the learning environment
- have good manners
- listen carefully to the teacher and fellow students when they are talking
- · show respect and tolerance to other students and staff

#### Engagement

- be present in school from 8.20 a.m. 3.25 p.m. (unless you have no lessons after Period 3.)
- attend all morning tutor periods, House Assembly and Chapel
- if you know in advance that you will be absent, you must inform your form tutor and your subject teachers and make arrangements to complete any work missed.
- attend games lessons on Wednesday afternoons and/or participate in the community service programme
- take advantage of extra-curricular activities which take place outside school hours and support and represent the school when asked to do so e.g.at Open Days

#### Integrity

- understand the importance of acting as role models to students in the school
- conform fully to the School's expectations about personal conduct and appearance (*Please read the School Dress Code fully*)
- treat the School with respect and accept responsibility for maintaining the Sixth Form Common Room
- never leave School premises without authorisation from your tutor and/or Head of Year/Head of Sixth Form and always sign out. You may leave the site after 1:20pm (unless you are on compulsory private study) but you must sign out.
- holidays should not be taken in term time
- driving lessons should not be arranged during school time unless it is during a study period in the afternoon

#### **Disciplinary Procedure**

If you fail to observe the expectations, the following sanctions will apply:

- 1. Your tutor will discuss the problem with you and remind you of our expectations. This meeting will have the status of an oral warning and a record will be kept of it.
- 2. If you do not heed this warning, the matter will be referred to your Head of Year. She will see you about the matter and after the discussion a letter will be sent to both you and your parents. This will constitute a written warning.
- 3. Should you fail to act upon this warning, the matter will be referred to the Head of Sixth Form and, in consultation with the Headmaster, you may be required to leave the Sixth Form

#### Entry Criteria for Year 13

• In order to progress into Year 13, there is an expectation that you must achieve a minimum of three grade C's or equivalent in your end of Year 12 exams.

Pupil Signature: .....

Pupil Name: .....

Date: .....

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### **READING SCHOOL**

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