

Why choose Lincoln Minster School?

The Lincoln Minster School (LMS) Sixth Form is a really great place to be part of. Below are four key reasons that make it such a positive environment in which to study, enjoy sixth-form life and to develop the skills and personal characteristics to help you make a successful transition to your next stage of life, whether Higher Education or the world of work.

Achievement

Although it may not be everything, for most of you achieving top grades is the single most important part of being a Sixth Former.

At LMS we have small classes, expert and experienced teachers, a positive student work ethic, and a supportive working environment, to help you to do your best.

Additionally, we have great academic opportunities outside the classroom including visits to galleries, laboratories and museums, while our strong links with Lincoln University will enable you to attend lectures, visit world-class scientific and engineering facilities, and to use their library and on-line research facilities in your work.

All this has led to outstanding achievement across the student body including recent students attaining places at Oxbridge and medical colleges.

Last year, 46% of our students went to prestigious “Russell Group” universities, 74% achieved their first-choice destination, and 96% of those who applied achieved a place in Higher Education, respected work-placement schemes, the military or other appropriate courses.

Overall, the excellent teaching, positive atmosphere and additional academic opportunities make our Sixth Form the best place for you to achieve your goals.

Support

At LMS, you will always be supported to help you achieve your best and to deal with challenges which may arise while you are a Sixth Former.

The Sixth Form team includes experienced and caring tutors who – helped by small tutor groups, regular one-to-one tutorials, and focussed PSHCE lessons – give pastoral care focussed on supporting you as an individual.

As well as this, our Sixth Form Study Mentor will help you with any difficulties you may experience with your work, while the ESOL (English as a Second Language) and SEN (Special Educational Needs) departments give focussed and timetabled support to all students who need their help.

Finally, there is expert careers advice through regular visits from external speakers and extremely valuable one-to-one sessions with the Head of Careers to discuss your own options for the future.

Overall, we offer exceptional support to make sure you are best able to achieve your potential and successfully move to your next stage.

Opportunities

The happiest and most successful students are usually those who make the most of their opportunities.

At LMS we expect you to participate in some of the vast range of extra-curricular activities that we offer, as well as, if you choose, to set up your own! Music is vibrant at Lincoln Minster, alongside wonderful opportunities in art, drama, public speaking and sport.

Developing leadership skills is another really important opportunity for our Sixth Formers.

Many do this through applying to become prefects; setting up and / or leading clubs, teams, or bands; through their role on charity committees; through mentoring lower-school pupils; through participating on the Duke of Edinburgh Scheme, and through their roles in Young Enterprise.

Overall, we offer an excellent range of opportunities which we encourage everyone to make the most of.

Community

We are privileged to be part of such a friendly, positive and supportive community in our Sixth Form.

It is lovely to see how new students – whether from other British schools or abroad – are welcomed and integrated into friendship groups and the whole Sixth Form community.

Additionally, you will find you make new friends from within the LMS community through your new tutor groups, academic courses and participation in extra-curricular activities.

Our Sixth Form offer is fully linked to LMS's guiding principles: firstly, "Education for Life", through all our academic, extra-curricular and leadership opportunities; secondly, "I am Minster", through our focus on our students as individuals and as part of our vibrant Sixth Form community.

The remainder of our Sixth Form Curriculum Handbook will tell you more about our offer for students. In addition, do take the opportunity to experience what we have to offer you through our Sixth Form Open Evening, Year 11 "Move Up" Days, evening events and through conversations with LMS staff and our Sixth Form students.

We sincerely hope that our exceptional offer will make you want to join us in Lincoln Minster School's Sixth Form.

With best wishes,
Mr Nicholas Boot
Head of Sixth Form





Welcome to LMS

Sixth Form acts as a bridge into adulthood: into independence, greater freedom and opportunity.

At Lincoln Minster, our teachers work tirelessly to teach and inspire us in our A level lessons – so we can achieve the qualifications we need to create the futures we want.

Sixth Form at LMS, however, is much more than just examinations.

As well as academic success, we are encouraged to find and develop creative, artistic, expressive, physical, and technical interests and talents.

The sense of community – both in Sixth Form and across year groups – that results from making the most of these opportunities, is just as strong whether you take part in art classes, cathedral concerts, science workshops, or sports fixtures. And it is this strong community (definitely boosted by the smaller class sizes) which, for us, makes our Sixth Form unique.

It becomes a place where you can be accepted for who you are, embrace what you are passionate about, and shape the person you will become, in the company of friends and with the help of incredible teachers. This helps us to build a strong moral core and develop the social and cultural skills needed to prepare us for independent life.

Our advice to you is to do your best in your academic subjects, because with our teachers' help and your own hard work, you can achieve far beyond what you first thought possible.

Through individual guidance received from teachers, tutors, and the careers service, you will begin to see your future open out in ways you didn't even imagine.

So don't be afraid to be passionate, to be curious, and to be motivated. These are the things that will get you far, and allow you to enjoy the journey along the way!

Tilly Holmes and Harry Douglas – Head Girl and Head Boy

Curriculum Information

The completion of the recent A level reform means that all A levels are now linear (all exams are undertaken at the end of the two-year course). Additionally, most Higher Education (HE) institutions and employers make their core offer based on three A levels or the equivalent points tally.

These changes mean that, while some students may wish to start with four subjects, the vast majority at LMS will choose three A level subjects to study over the two years (the exception being Further Maths, which will need to be taken as a fourth option for exceptional mathematicians). Taking three A levels allows students to focus their efforts on the three qualifications that are required for entry into HE, school leaver programmes, higher level apprenticeships or directly to employment.

In addition, all students will be entered for the highly regarded Extended Project Qualification (EPQ) where students independently choose a topic and question which they then research, write up and present. Frequently, for example, students choose to focus on an area of personal interest which is directly relevant to their HE choice and which helps demonstrate their interest and commitment as well as developing their specialist vocabulary and knowledge. Our experience is that this qualification is extremely beneficial in a number of ways. A large number of institutions recognise the grades / points attained or make a lower grade offer, and the explicit feedback from HE is that the skills developed through taking the EPQ, such as independent working, planning, time management, research, referencing, extended structured writing and presentation skills - have huge advantages in preparing students for HE and for work.

Overall, therefore, the majority of students at LMS take three A levels plus the Extended Project Qualification (EPQ) though we try to accommodate everyone's options. Whatever you decide we will help you choose courses that are appropriate to your interests and ambitions.

Subject Choices

You must give very careful thought to your choice of which subjects to study in the Sixth Form. You will be asked to make provisional choices in January (if a subject does not have sufficient students to make it viable, we reserve the right to withdraw it from our programme for that year. Obviously, we will keep you fully informed of developments and advise you of alternatives).

Options will be confirmed in subject pools in February according to the best fit for the majority of the students committed to attending our Sixth Form. You will be asked to confirm choices from the subject pools by the middle of March (once the pools are formed you may change your choices only within pools).

What subjects can I choose?

This handbook lists the subjects on offer. You need to consider your career aspirations, your particular strengths and weaknesses, and your interests. Talk to your subject teachers, tutors, parents, careers specialists and take some time to think about your future!

We do our utmost to be flexible but we have to ensure that your choice is realistic and compatible with the overall timetable.

Mr Simon Grocott / Mr Nicholas Boot

Director of Studies / Head of Sixth Form

Biology

Studying biology gives you the opportunity to understand the living world. It lets you understand the processes that control living organisms and gives you insights into the nature of life on earth.

In addition, biology is a rigorous scientific discipline and it will give you a real understanding of the nature of science; how we use scientific method to begin to understand the world around us.

Lessons in biology will also give you an opportunity to discuss real world issues with ethical, moral and social dimensions based on a solid understanding of the science that underpins these topics.

Studying biology will give you the information that you need whether you chose to follow a career in science or not. It will help you to develop an independent approach to your studies and will help to develop communication, practical and presentation skills.

As well as providing an understanding of living systems biology opens doors to an exceptionally wide range of career options: Medicine, Veterinary Sciences, Dentistry, Nursing, Physiotherapy and Pharmacy. Students often go into other fields such as Ecology, Biotechnology, Genetics, Microbiology, Pharmacology, Radiography, Food Sciences, Physiotherapy, Plant Studies, Marine Biology; the list is very long and highlights how useful a qualification in biology can be.

60%

A*-A at A Level

“ *The hard work Biology requires is more than paid back in the pleasure it will bring you as you see the world around you in a different light.* ”



Course content and methodology

At LMS we study the OCR course leading to A2 qualifications. The course bridges the gap between GCSE and A Level standard of thinking and problem solving. Students in Year 12 study two module areas. These extend upon some topics studied at GCSE such as cell structure and biological molecules; and introduce new areas such as the biology of nucleotides and nucleic acids. Year 13 builds on the Year 12 topic areas and develops a more extensive understanding of biochemistry, biodiversity and disease but also introduces fields at the forefront of biological research in Genetics, Cellular Control and Manipulating Genomes. Students will be taught by two Biology teachers, who share the teaching of the course.

Exam Board

OCR GCE A Level Biology A H420

Assessment

Assessment is by means three units taken at the end of Yr 13 with a practical endorsement reported separately to the student's grade. Practical skills are practised through the course and are formally assessed by the teachers using tasks outlined in the specification.

Course requirements

Students must have studied dual award or separate sciences at GCSE Higher Tier and whilst students can complete the course with B grades, students are more likely to have successful A level outcomes if they have achieved A grades or above.

Chemistry

Chemistry is as up to date as the clothes you wear, the food you eat, the air you breathe and the car you ride in. Almost every aspect of your daily lives is affected or controlled by Chemistry.

Chemists create new materials and test existing ones. They are involved in engineering, fuel technology, electronics, space travel and every other form of modern science. A world without chemists and chemistry would be a very difficult place in which to live.

An A level in Chemistry allows you to develop a range of generic skills requested by both employers and universities. For instance, a successful A level chemist will be an effective problem-solver and be able to communicate efficiently both orally and with the written word.

You will be competent at using data and applying Mathematical skills to often abstract concepts. It is little wonder then, that one of the major employers of graduate Chemists are the banking and financial industries.

Course Content and Methodology

Students in Year 12 study four modules, a practical module which is assessed internally and three units of theory.

Topic areas for the theory modules include: atoms, compounds, bonding and equations, acid-base and redox reactions as well as organic chemistry. There is a significant mathematical content to the A level with topics on energy changes, stoichiometry and reaction rates involving not only an understanding of the theory but a good foundation in mathematics.

Year 13 builds on the year 12 topic areas and introduces a more detailed study of physical, organic and analytical Chemistry. Students will be taught by two Chemistry teachers, who share the teaching of the course.

Exam Board

OCR Chemistry A H432



100%
A*-C at A Level

Economics

Economics explores issues about how people, industries, and countries try to maximise their productivity and create wealth to maintain financial stability. Economics is concerned about choices and decision-making, in many ways it has become a way of explaining 'everything' in society.

You will study different theories and models put forward by economists to explain why and how people and governments should behave within markets.

The concepts can be applied to all human actions and so the subject itself can complement any field of study.

As economics students you will learn to use a variety of numerical, graphical and investigative methods to understand the individual, national and global situations facing us today.

Economics is a very well respected academic A Level subject and will provide you with an excellent grounding for further studies as well as any Business/Management/International Studies.

Course content and methodology

As students of economics you will acquire knowledge and understanding of some basic microeconomic models that investigate problems and issues concerning individual consumers, firms and markets. You will be able to apply this knowledge to explain the relationships between demand and supply. You will also explore macroeconomic theories that attempt to explain how the whole economy works. You will study these economic concepts within the context of recent and current economic behaviour.

The department uses a wide variety of resources alongside respected text books and also encourages students to develop knowledge of economic affairs through the use of newspapers, magazines and websites.

100%

A*-B at A Level

Exam board

AQA 7136

Assessment

Assessment is examination only in all units. All three examinations will be taken at the end of the two years. Paper 1 & 2 have a mixture of data response and essay questions. Paper 3 has 30 multiple choice questions and questions based on a case study. Maximum mark for each paper is 80.

Paper 1: Markets and market failure

Paper 2: National and international markets

Paper 3: Economic principles and issues

Course requirements

There are no specific requirements to have studied Economics at GCSE. However an interest in the economic climate around you is key. An ability to communicate effectively and be numerate is also essential so strong grades in English Language and Mathematics at GCSE are required.



Further Mathematics

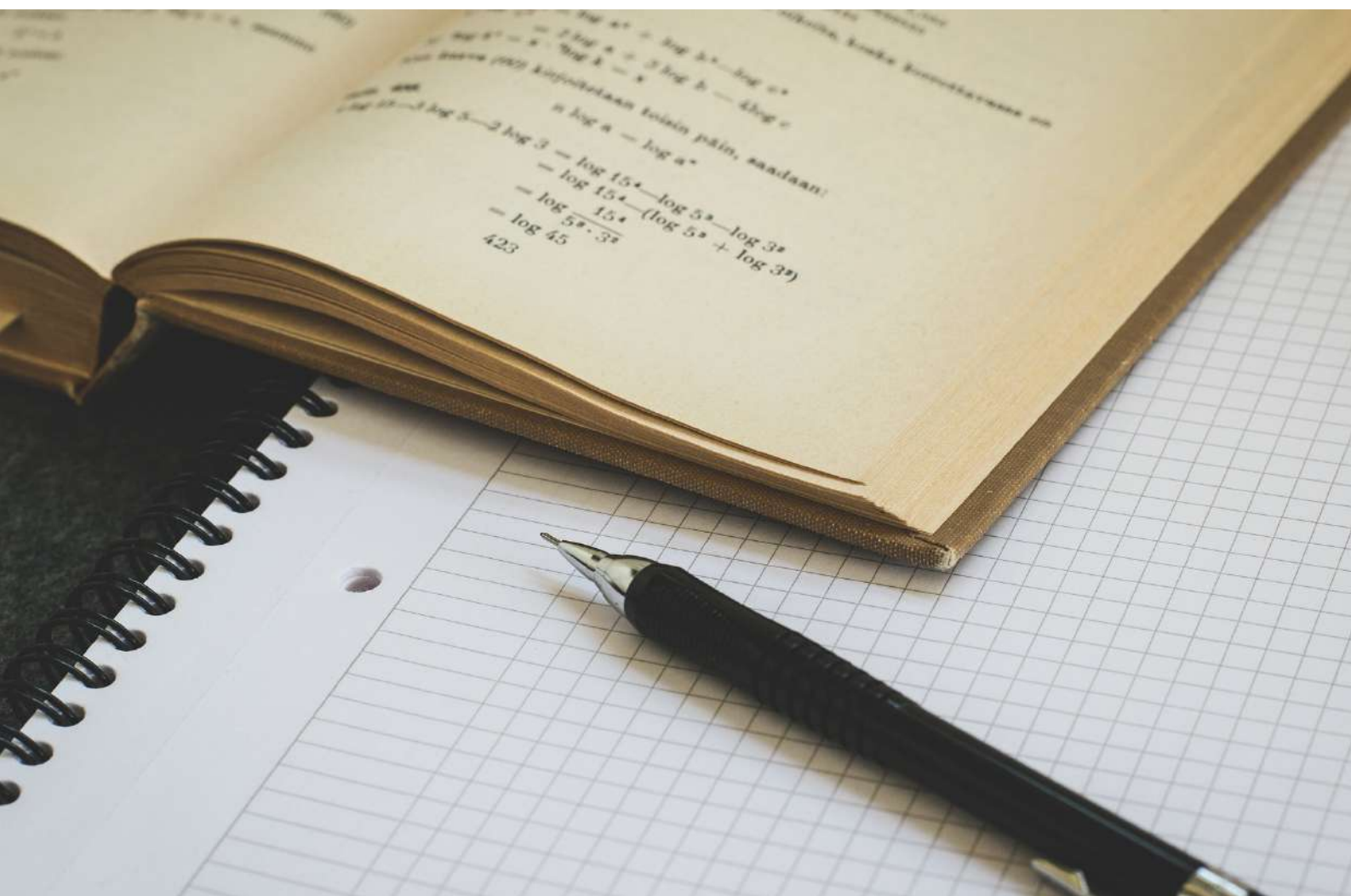
This is probably the most challenging qualification, which both extends and deepens your knowledge and understanding beyond the standard A level Mathematics. Students who do it often say it is their favourite subject but you do have to dedicate a lot of extra time to your studies.

Further Mathematics qualifications are highly regarded and are warmly welcomed by universities. Students who take Further Mathematics are really demonstrating a strong commitment to their studies, as well as learning mathematics that is very useful for any mathematically rich degree.

Some prestigious university courses require you to have a Further Mathematics qualification and others may adjust their grade requirements more favourably to students with Further Mathematics.

If you are planning to take a degree such as Engineering, Sciences, Computing, Finance/Economics, etc., or perhaps Mathematics itself, you will benefit enormously from taking Further Mathematics, at least to AS level.

Further Mathematics introduces new topics such as matrices and complex numbers that are vital in many STEM degrees. Students who have studied Further Mathematics find the transition to STEM degrees much easier because many of the topics studied in the first year of university have already been covered.



Course content and methodology

Core Further Pure Mathematics 1 and 2

Proof; Complex numbers; Matrices; Further algebra and functions; Further calculus; Further vectors; Polar coordinates; Hyperbolic functions; Differential equations

Further Statistics 1 content

Discrete probability distributions; Poisson & binomial distributions; Geometric and negative binomial distributions; Hypothesis Testing and quality of tests; Central Limit Theorem; Chi Squared Tests; Probability generating functions

Further Pure Mathematics 3 content

Further Trigonometry; Further Calculus; Further differential equations; Coordinate systems; Further Vectors; Further numerical methods; Inequalities

A plethora of extra resources are available on all of the topics and tutorials are always available whenever they are required.

Exam Board: EDEXCEL A Level Further Mathematics 9FMO

Assessment: 4 written examinations of 1 hour 30 minutes on Further Core Pure Mathematics 1,2 and 3 and Statistics 1

Course Requirements: All students find the step from GCSE or IGCSE to A-Level Further Mathematics difficult; the experience of most pupils is that the subject becomes harder but a lot more interesting and rewarding. Hence since, Further Mathematics in the Sixth Form is the most challenging subject the minimum requirement is a grade 8 or 9 (A*) in GCSE or IGCSE Mathematics.

66%

A*-A at A Level

Geography

Geography is a wide-ranging subject, which brings together the study of people and their environment. It relates to the many social, economic and environmental problems of the contemporary world and allows consideration of different perspectives.

New insights are afforded by topics as varied as the carbon cycle, postmodern-western cities and the ever changing topic of global Governance.

Geographers are both literate and numerate, having the ability to analyse concepts from a scientific, human, physical or environmental viewpoint.

Physical Geography tends to be a concrete factual subject whereas Human Geography gives scope for discussion, argument and even disagreement!

The study of both human and physical geography as part of the new A level produces rounded, analytical and sought-after students.

Fieldwork is an integral part of Geography A level. Geographers have a minimum of 4 days fieldwork experience in both the collection, interpretation and evaluation of data. This is usually a residential experience.

The department also has close links with the School of Geography at the University of Lincoln where students are able to attend undergraduate lectures and speak with lecturers to build on their knowledge and understanding at a higher level.

“ Geography is an increasingly important qualification for many careers such as Tourism, River and Environmental Management, Journalism and Marketing.

You will develop skills that are of value both for universities and future employers.

”



100%
A*-C at A Level

33%
A*-A at A Level

Course content and methodology

- Water and the Carbon Cycle (a study of Earth's major systems)
- Changing Places (demography, culture and society behaviour)
- Coastal Systems (a systems approach to global coastal systems)
- Global Systems and Global Governance (trade, development, migration, management of global resources)
- Contemporary Urban Environments (physical and human aspects of urban areas)
- Hazards (tectonic and atmospheric systems, impacts and mitigation)
- Lessons are taught in mixed ability groups and include a variety of teacher led, personal investigation and group work tasks.

Individual and pupil presentations form part of the experience as well as a number of 'hands on' modelling activities including fieldwork equipment, modelling clay and creative lessons.

Exam board

AQA course code: 7037

Assessment

The examination is a mix of an extended fieldwork investigation project (written in year 2) and two terminal written examinations. Pupils will need to use both English and Mathematical skills in order to interpret and analyse data, draw judgements, justify, conclude and evaluate. Extended 20 mark questions are required in essay style answers.

Component one: PHYSICAL GEOGRAPHY

Written exam: 2 hours 30 minutes, 120 marks, 40% of A-level

Component two: HUMAN GEOGRAPHY

Written exam: 2 hours 30 minutes, 120 marks, 40% of A-level

Component three: GEOGRAPHY FIELDWORK INVESTIGATION

Students complete an individual investigation which is 3,000–4,000 words on a topic of their own choice which is linked to the specification (60 marks/20% of A-level)

Course requirements

GCSE Geography (at 6 or above) is most preferable. Students should have a passion for knowledge and will need to invest a minimum of 3 hours a week for reading, personal investigation and homework.

Pupils must have good use of the English language (reading, writing and speaking) for the 100% written assessment.

Mathematics

Students choose to study Mathematics in the Sixth Form for a variety of reasons. First and foremost, it is a rich and intellectually demanding subject which calls for mental discipline and clear, logical thinking. As such, it is very highly regarded by universities and employers alike, irrespective of your chosen career direction.

Secondly, Mathematics forms the basis of many fields of study in Engineering and the Physical Sciences, and is therefore a prerequisite for further development in these areas. Moreover, recent trends have seen the applicability of Mathematics expand way beyond these traditional fields.

The subject is increasingly used to solve complex problems of Management and Finance, particularly in industry, and also for research in Economics, Geography and the Biological Sciences.

A wide range of career options also means a chance to earn more money: a recent study, conducted by economists at the University of Swansea, showed that Maths and Computing degrees make the biggest difference to lifetime earnings. On average, a graduate of any degree can expect to earn £149,760 more in his or her lifetime than a person leaving education with two A levels. For Maths and computing graduates, this figure rises to over £220,000!

Further Mathematics is a separate A-Level to Mathematics which extends the core topics and introduces new material normally encountered during the first year of a degree course. It is therefore a particularly demanding A-Level although many find it even more exciting and rewarding than single Maths.

Anyone considering studying Engineering, Mathematics or Economics at a top university must study this subject.

Course content and methodology

Written examinations on Pure Mathematics: 2 by 2 hours 66.66% of the qualification

Content of Pure Mathematics overview

- Topic 1 – Proof
- Topic 2 – Algebra and functions
- Topic 3 – Coordinate geometry in the (x,y) plane
- Topic 4 – Sequences and series
- Topic 5 – Trigonometry
- Topic 6 – Exponentials and logarithms
- Topic 7 – Differentiation
- Topic 8 – Integration
- Topic 9 – Vectors

Written examination on Applied Mathematics: 2 hours 33.33% of the qualification

Content Applied Mathematics overview

Section A: Statistics

- Topic 1 – Statistical sampling
- Topic 2 – Data presentation and interpretation
- Topic 3 – Probability
- Topic 4 – Statistical distributions
- Topic 5 – Statistical hypothesis testing

Section B: Mechanics

- Topic 6 – Quantities and units in mechanics
- Topic 7 – Kinematics
- Topic 8 – Forces and Newton's laws

A plethora of extra resources are available on all of the topics and tutorials are always available whenever they are required.

Exam Board

Edexcel A Level Mathematics 9MA0.

Assessment

3 written examinations each 2 hours long and worth 33.33% of the qualification.

Course requirements

Many students find the step from GCSE or IGCSE to A-Level difficult; the experience of most pupils is that the subject becomes harder but a lot more interesting and rewarding. Hence since, Mathematics in the Sixth Form is such a challenging subject the minimum requirement is a grade 7 (A) in GCSE or IGCSE Mathematics.

33%

A* at A Level

66%

A*-A at A Level



Physics

In many ways, Physics is the fundamental Science subject. It deals with the obscure; matters from the smallest scale of sub-atomic particles to the largest scale with thought provoking questions about the Universe. It also deals with the everyday; Physics certainly is one of the most relevant subjects in the running of our daily lives.

If you are the sort of person who has always asked “How?”, “Why?”, and always want to know how and why things work, then Physics may just be the subject for you.

It is extremely highly thought of by employers in a huge range of careers as a result of the problem solving skills that become highly developed during the course. It is also important to many that Physicists are statistically the highest paid Scientists!

Students studying A-Level Physics can go onto a huge variety of degrees and careers including: Physics, Scientific Research, Civil Engineering, Mechanical Engineering, Electronic/Electronic Engineering, Medicine, Aeronautical Engineering, Architecture, Computing.

Course Content and Methodology

At LMS we study the OCR course leading to A2 qualifications. The course bridges the gap between GCSE and A Level standard of thinking and problem solving. Students in Year 12 study two module areas. These extend upon some topics studied at GCSE such as forces and electricity; and introduce new areas such as the physics of materials and quantum physics.

Yr 13 builds on the Yr 12 topic areas, develops a more extensive understanding of field theories and diagnostic techniques in medicine but also introduces the fields at the forefront of Physics research in Cosmology, Particles, and Nuclear Physics. Students will be taught by two Physics teachers, who share the teaching of the course.

Practical skills are practiced through the course and are formally assessed by the teachers using tasks outlined in the specification.

Exam Board

OCR GCE A Level Physics A H556

Assessment

Assessment is by means three units taken at the end of Year 13 with a practical endorsement reported separately to the student's grade.



50%
A*-A at A Level