



ABINGDON

From Head of Physics: Ben Simmons

1 September 2017

Dear Parents,

Lower Sixth Physics Information Michaelmas 2017

I am delighted to write to you following your son's choice to study Physics in the Sixth Form at Abingdon School. This letter is intended to give you some key information about studying Physics at A-level as well as an overview of the opportunities available to him on top of the core curriculum offering over the next few months.

At Abingdon in the Sixth Form, Physics is taught in sets that are selected based on his GCSE results. We study the Edexcel Physics A-level course (2015), the specification and more information about this can be found on the Edexcel website. Over the course of the year the students will complete three important sets of exams. These are the November test, February test and summer exam. Your son's guidance grade which will inform his predicted grades for the universities he applies to will be based around the results in these.

The following paragraphs describe departmental offerings on top of the core curriculum. If your son would like to take part in any of the extension projects or trips, please complete the google form below:

Sign up for extension projects or trips

https://docs.google.com/forms/d/e/1FAIpQLSeka3L2EI31QXZI5xeGJsFhRGCXd-SpU3agCLMyJWWoEMpKdQ/viewform?usp=sf_link

Lower Sixth Physics Talks

During the first half of the Michaelmas term we are pleased to offer two Physics Society talks during the Friday period eight slot. Physics students who do not have other school commitments are expected to attend.

Friday 8 September – Gregory Munday – Second Year Physics Student

Old Abingdonian Gregory Munday is currently studying Physics at Exeter University. He will talk about Physics at university, life at Exeter and go through some of weekly problems he has been set as part of his course.

Friday 15 September – Dr Rob Buckingham – Director, UK Atomic Energy Authority

Dr Rob Buckingham is Head of UKAEA's new RACE facility for robotics in challenging environments. He will speak about the rapid development of robots and artificial intelligence, including autonomous vehicles.

Lower Sixth Physics Extension Projects

The Physics department is offering two possible extension projects for L6 students this year. Both are national competitions and involve pupils working in teams to solve an engineering problem. The Blott Matthews challenge is theoretical whilst the Weizmann Safe Competition also requires the manufacture of a "safe". Both offerings will take place during academic priority time in the Thursday long lunch and therefore students could only choose to take part in one of these.

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Option 1 – Blott Matthews Challenge – Open to any L6 Physics students

A team project requiring the presentation of a design proposal to solve an engineering problem. Abingdon won last years competition and the news article is linked below.

https://www.abingdon.org.uk/teams_triumph_in_blott_matthews_engineering_competition_may17/

Website information link:

<http://www.blottmatthews.com/>

Option 2 – Weizmann Safe Competition – Open to L6 students who do Physics and DT

The competition sees teams of five students design and build a safe that has locking mechanisms based on the principles of physics. Teams spend a term designing their uncrackable safes ready for the UK competition day where they participate in rounds of cracking each others offerings and are judged by physics experts from the UK and Weizmann Institute of Science.

Website information link:

<https://www.weizmann.org.uk/education/introduction#physics-competition>

Lower Sixth Physics Day Trips

During the course of the Michaelmas term the Physics department is offering the following day trips to further supplement the material covered in the core curriculum. The two trips on the 9 and 13 November have the same selection of talks but are just in different locations. Please note that trip places will be allocated on a first come first served basis. Initially each student is able to sign up to one trip. The cost for the Physics in Action trips will be put on the next school bill.

Option 1 - 9 November – Physics in Action trip to London – £30

Information link:

<http://www.thetrainingpartnership.org.uk/study-day/physics-in-action-20/>

Option 2 - 13 November – Physics in Action trip to Warwick – £30

Information link:

<http://www.thetrainingpartnership.org.uk/study-day/physics-in-action-13/>

Option 3 - 5 December – Culham Centre for fusion energy – free

Information link

<http://www.ccf.ac.uk/visits.aspx>

Sixth Form Physics Residential Trip

Thank you to those of you who have signed up to the Physics trip to Geneva at the start of the Christmas holidays. The confirmed itinerary is attached. Please note that all places are now filled.

Itinerary

<https://drive.google.com/file/d/0B8bgvC3Zkn6gdm5Zb2phU1hzRWc/view?usp=sharing>

I hope that your son enjoys his time studying Physics during the Sixth Form. It is likely that there will be times that he finds some of the topics challenging as it can be quite a big step up from GCSE. Please remind him that he is always welcome to drop by the Physics office to ask for extra help if he is struggling with a particular concept. Please do not hesitate to contact me if you have any further questions.

Yours sincerely

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