

Bishop Wordsworth's School

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Dear Parents/Guardians

Year 13 Linear Chemistry

Your son will receive his prelim result this week. In addition we will also share with your son the information that is attached here. This analysis shows how the Chemists from last year progressed from prelim to final exam in addition to providing detailed advice and guidance. We think it is important for this analysis to be studied because it should help your son to have an improved understanding of how they may achieve in the summer. This understanding could be used to inform their decisions with regard to their future plans and UCAS offers. We recommend that you read this guidance yourself ahead of our meeting on parents evening on 5 February when we will be able to chat and answer any of your questions.

We are aware that some boys are hoping to exceed their prelim grade by more than one grade in order to secure their chosen degree course/job offer. The evidence from last year's cohort shows that this is going to be a huge leap, not easily attained by students and even then only with superb preparation and good exam technique.

Those boys who have prepared and plan to undertake the Chemistry Olympiad competition on Thursday 25 January will be using this excellent opportunity to further develop their higher level problem solving skills. It is vital that your son has let us know that he wishes to undertake the competition where we are not in receipt of a payment so that we know to order him a paper by Wednesday 24 January at the very latest. Last year, nearly all of the Yr13 Chemists undertook the Olympiad competition and we are confident that it supported their skills in tackling the A Level exam questions where students needed to apply their understanding to a novel area of Chemistry.

We will continue to remind your son that the linear exams are examined solely this summer and that they therefore need to ensure that they set aside sufficient time to revise the whole two years of course material. We are suggesting to the boys that once they have completed their homework for the week that they then use any spare study time to cover the two years of course material in preparation for our revision programme which we expect will start just before Easter. The boys last year provided very positive feedback with respect to the revision programme that we planned and undertook so we are confident that engagement in that programme will again support exam preparation.

Kind regards

Dr Emma Baker Director of Science/Head of Chemistry

What might you expect to achieve in Chemistry with your Prelim grade in mind?

You sat the same paper (5% difference) as last year (2016/2017 cohort). This means that the outcomes of the 2016/2017 cohort can be helpful to you. You can see how the boys improved from prelim to A Level and this will enable you to make some realistic decisions with regards to the UCAS offers that you have been made. You can also use this information to see what the most likely grade is for you in the summer exam (bearing in mind that the boys last year worked hard from prelim to final exam- **if you want to do better than even the average student last year you are going to need to be aware that this is going to be an extra challenge** – as I said, the boys last year worked hard.

The average increase from Prelim to A Level outcome across the year was 1.5 grades.

One person got the same grade in their prelim as their final exam – all other boys improved.

Only one boy raised their prelim grade by 3 grades to the final exam.

14% (5 boys out of 35) improved by 2.5 to 3 grades and 14% (5 boys out of 35) by 2 to 2.5 grades from Prelim to Final exam.

Only 28% (10 boys out of 35) improved by 2 grades or more from Prelim to Final exam.



Those boys who improved did the following:

- Came every week and worked in the back of a lesson of either Dr Baker or Mr Rogers for a double period.
- Used their study time effectively often working in the SC before school and lunchtimes in addition to their study periods.
- Used the textbook to work systematically through the specification making notes on each topic and attempting and marking the end of chapter questions for each topic from the textbook. The initial focus being a tight focus on the 'depth and detail'.
- Used the independent study guides watching the video tutorials for topics that needed further teacher explanation. This was then followed up by the completion of and marking of the past paper questions in the study guide focusing on exam technique and questions where their knowledge needed improving. Where there were gaps in knowledge or understanding further work was undertaken.
- Undertook all the homework and past paper questions on time to receive feedback in the lessons.
- In the final weeks before the exam, used the examiners mark schemes to really hone answers/ use of key scientific terms.

- Engaged fully with the revision programme planned their revision to coincide with the in class revision programme so that they had revised the topics ahead of the focus lesson thus enabling them to ask specific questions to further their knowledge and understanding.
- Did all the past paper questions and exams that they were given using them to improve exam technique but also to identify where there were knowledge gaps which needed to be plugged.

Key Resources for use by the boys

- The textbook is excellent this should be the key resource used. It should look well used by June!
- We will be loaning the boys a Practical Skills book which they should read and use to support their preparation of the practical (PAG Practical Endorsement) activities, understanding being assessed in the final exams.
- Isaac Chemistry book and website this book which your son has been given and the associated online resource can be used by the boys to develop their abilities at answering the more mathematical questions – a few boys worked independently through lots of these problems last year which are answered online.
- The specification points for each topic that can be found in their topic booklets these outline exactly what needs to be learnt, as does the textbook along with the exam board A Level (not AS) specification which can be found here: <u>http://www.ocr.org.uk/qualifications/as-a-level-gce-chemistry-a-h032-h432-from-2015/</u>
- The 'Independent study guides' These can all be found on the website: <u>http://www.bws-school.org.uk/Curriculum-Exams/Science/Files/Y13Files/</u>
- Past Papers these should be used once revision and the independent study guides have been used boys should not just revise by doing these past papers without consolidating first! Legacy past papers F321 and F322 cover Yr 12 work and F324 and F325 cover Yr 13 work although there are a few gaps due to the new course these can be found here: http://www.ocr.org.uk/qualifications/as-a-level-gce-chemistry-a-h034-h434/
- Resources which the boys will be provided to support the answering of the practical type and synoptic questions which are not found on the legacy papers practice papers that the boys will be given at around Easter time will have these types of questions as do the specimen papers for the new A Levels which can be found here: http://www.ocr.org.uk/qualifications/as-a-level-gce-chemistry-a-h032-h432-from-2015/
- BoomerChemistry online tutorials. A tutorial programme with videos, quizzes, notes and exam style questions with answers – The first year course comes at a cost of £29 each. A Review in 'Education in Chemistry' and from students who have used this resources have been positive. <u>http://www.boomerchemistry.com/</u>

Topic areas for A Level Chemistry for revision planning are:

Atomic Structure and Structures and Bonding – Yr 13 Chemistry calculations (Yr 12) and revisited in Yr 13 Electronic Structure and Periodicity (yr 12) Organic Chemistry (Yr 12) Rates and Equilibria (Yr13) Transition Metals (Yr13) Organic Chemistry (Yr13 – including spectroscopy) Enthalpy Changes (Yr 12) Energy (Yr 13) Practical Chemistry and Techniques (throughout)