

Chemistry L6th preparatory reading and research program 2018

To properly welcome and prepare you for the exciting learning opportunities on offer in the sixth form, the Chemistry department has prepared a short reading list; coupled with a few assignments to be completed over the summer. These should help bridge the gap between your current Chemistry knowledge and what the PreU Chemistry course has to offer.

Essential recommended reading (1)

James Keeler and Peter Wothers ***Why chemical reactions happen***

- **ISBN-10:** 0199249733
- **ISBN-13:** 978-0199249732

Book review:

This book is salvation for us poor chemists who spend hours looking in four thick chemistry text books for one snippet of information. It provides a good overview of all the topics and manages to link them all in a coherent manner. It is very well laid out and easy to use, and is cheaper than the average textbook.

Overall, despite the black and white illustrations, this book is anything but overbearing and would make an excellent introduction for any chemist or potential chemist.

Task to accompany recommended reading (1)

The Chemistry department would like for you to priorities your reading to focus on **chapters 4 (Electrons in atoms)** and **5 (Electrons in simple molecules)** in particular, as these will link closely with the material covered at the start of the first term. Please could you try to write your own compacted and minimalised **notes** on these chapters in a **notebook** or **journal** to help evidence this reading. These notes need to be as **your own words and interpretations** but based as closely as possible upon the information within those two chapters. This is the minimum requirement, if you wish to read and not further chapters you are perfectly at liberty to do so.

Accompanying this reading are three tasks to be complete:

1. **Bridging the gap questions** – a selection of standard sixth form chemistry questions designed to encourage reading around the subject and strong general factual recall of the early subject material. [To be handed into teachers upon start of term]

2. **PreU specific questions related to preparatory reading** – these questions are more closely related to the extra reading being done. [To be handed into teachers upon start of term]

3. **Muscle memory of chemistry** – these questions have been designed to help you practice the “essentials” skills involved in the subject in preparation for the Pre-U course. [To be completed to the best of your ability]

Complete both these tasks and bring with you to hand in to your teachers at the beginning of term.

Essential recommended reading (2)

Hugh Aldersey-Williams ***Periodic tales: The curious lives of the elements***

- **ISBN-10:** 0141041455
- **ISBN-13:** 978-0141041452

Book review:

Entertaining and informative, this volume provides a fascinating safari through the periodic table. On the one hand, giving sound chemistry information and on the other providing interesting social and cultural links to each chemical element, be this in popular culture, history or forensic science. It's delightfully written with wry humour which made me smile several times. It clearly expertly researched. I would recommend this to anybody interested in brushing up on their chemistry knowledge whilst enjoying an entertaining bedtime read.