



First of all let me congratulate you on choosing CHEMISTRY as one of your A level subjects! I am sure you are going to enjoy learning about the concepts that you learnt at GCSE, but to a greater depth! Hopefully there will be lots of **“oh that is why “ , “ I get it now, I never understood that at GCSE “** moments.....

If you are like me, and can forget everything you are taught, the best thing that you can do for your bridging work is to do the transition work booklet (this is attached). It will go through all you need to remember from GCSE, so you are ready to build on this knowledge at A level, otherwise you may fall behind.



*A Level*  
CHEMISTRY  
TRANSITION  
BOOKLET



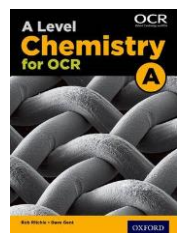
Chemistry answers many questions, to aid that curiosity there are some questions to research. Use this to practise your reworking of notes skills, which is what you are going to have to do at A level. There are also some books and magazines that we recommend that would be a good read.

I hope you enjoy the activities and hope to see in September- have a good summer holiday! If you have any questions, please do not hesitate to contact the chemistry department, who will be happy to help ☺ Mrs Nayyer

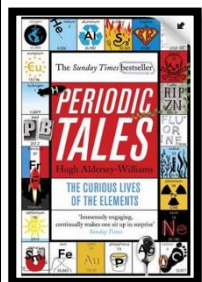
[R.nayyer@holt.wokingham.sch.uk](mailto:R.nayyer@holt.wokingham.sch.uk)



(remember, you can add these to your wider reading log in September!)



This is the course text book that you **need to purchase** for the start of September.  
ISBN number: ISBN: 978-0-19-835197-9.

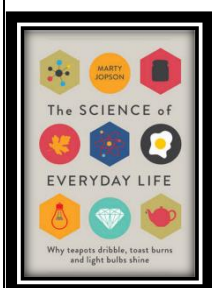


**Periodic Tales: The Curious Lives of the Elements** (Paperback) Hugh Aldersey-Williams

ISBN-10: 0141041455

<http://bit.ly/pixlchembook1>

This book covers the chemical elements, where they come from and how they are used. There are loads of fascinating insights into uses for chemicals you would have never even thought about.

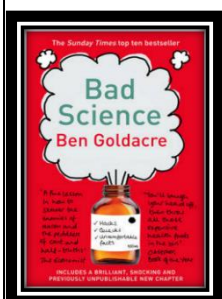


**The Science of Everyday Life: Why Teapots Dribble, Toast Burns and Light Bulbs Shine** (Hardback) Marty Jopson

ISBN-10: 1782434186

<http://bit.ly/pixlchembook2>

The title says it all really, lots of interesting stuff about the things around you home!

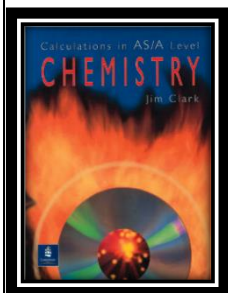


**Bad Science** (Paperback) Ben Goldacre

ISBN-10: 000728487X

<http://bit.ly/pixlchembook3>

Here Ben Goldacre takes apart anyone who published bad / misleading or dodgy science – this book will make you think about everything the advertising industry tries to sell you by making it sound ‘sciency’.



**Calculations in AS/A Level Chemistry** (Paperback) Jim Clark

ISBN-10: 0582411270

<http://bit.ly/pixlchembook4>

If you struggle with the calculations side of chemistry, this is the book for you. Covers all the possible calculations you are ever likely to come across. Brought to you by the same guy who wrote the excellent chemguide.co.uk website. This can be found in our senior LRC

### Film/ Documentary Recommendations

There are a number of useful films and documentaries that will develop your wider understanding of the topics covered.

#### Chemistry in the Movies

Dantes Peak 1997: Volcano disaster movie.

Use the link to look at the Science of acids and how this links to the movie.

<http://www.open.edu/openlearn/science-maths-technology/science/chemistry/dantes-peak>

<http://www.flickclip.com/flicks/dantespeak1.html>

<http://www.flickclip.com/flicks/dantespeak5.html>

Fantastic 4 2005 & 2015: Superhero movie

Michio Kaku explains the “real” science behind fantastic four <http://nerdist.com/michio-kaku-explains-the-real-science-behind-fantastic-four/>

<http://www.flickclip.com/flicks/fantastic4.html>

### Have a go at a Research Activity

Using the internet and books, complete the following task. You should produce notes using the Cornell Note Taking System (<http://lsc.cornell.edu/wp-content/uploads/2015/10/Cornell-Note-Taking-System.pdf>) on the following topic(s). You will have to rework your own notes- so the Cornell system might be the way for you!

Use your online searching abilities to see if you can find out as much about the topic as you can. Remember if you are a prospective A level chemist, you should aim to push **your** knowledge.

**You can make a 1-page summary for each one you research using Cornell notes:**

<http://coe.jmu.edu/learningtoolbox/cornellnotes.html>

#### **Task 1: The chemistry of fireworks**

What are the component parts of fireworks? What chemical compounds cause fireworks to explode? What chemical compounds are responsible for the colour of fireworks?

#### **Task 2: Why is copper sulfate blue?**

Copper compounds like many of the transition metal compounds have got vivid and distinctive colours – but why?

#### **Task 3: Aspirin**

What was the history of the discovery of aspirin, how do we manufacture aspirin in a modern chemical process?

#### **Task 4: The hole in the ozone layer**

Why did we get a hole in the ozone layer? What chemicals were responsible for it? Why were we producing so many of these chemicals? What is the chemistry behind the ozone destruction?

#### **Task 5: ITO and the future of touch screen devices**

ITO – indium tin oxide is the main component of touch screen in phones and tablets. The element indium is a rare element and we are rapidly running out of it. Chemists are desperately trying to find a more readily available replacement for it. What advances have chemists made in finding a replacement for it?

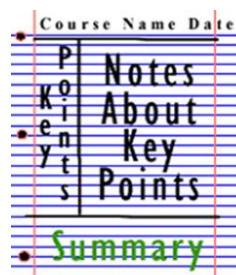


Figure 1: <http://coe.jmu.edu/learningtoolbox/images/noteb4.gif>

### Ideas for Day Trips

Visiting some of the places in the list below could be fun AND educational....

1. Science museum, in London
2. At-Bristol science museum
3. Somerset Earth Science Centre:  
<http://www.earthsciencecentre.org.uk>
4. The UK Association for Science and Discovery Centres (ASDC)  
This association brings together over 60 major science engagement organisations in the UK.  
<http://sciencecentres.org.uk/centres/weblinks.php>

### Social Media and Websites

A who's who of who to follow on social media.....

The RSC <http://www.rsc.org/> is where all chemistry is happening for students. There is latest new items related to chemistry and latest research. There is a blog to follow and get some great tips and help into careers in chemistry. There are lots of resources available, definitely worth a browse.



Chemistry Reviews <http://www.york.ac.uk/chemistry/schools/chemrev/> is a great way to widen your knowledge and tips about exam technique. It is aimed for A level students and we have copies in the senior LRC.



COSMOS magazine is also a great science read and again we have copies in our LRC.