



**The John Roan School  
Sixth Form**  
The best in everyone™  
Part of United Learning

## Year 11 Bridging Work for Chemistry

### Week 1 and 2



#### Complete - Download the first chapter of Isaac Chemistry

Isaac chemistry is a new resource being put together. Download for free the first chapters of their new book and see which questions you can complete

Link:

[https://www.isaacbooks.org/files/BOOK\\_chem\\_2\\_chapters.pdf](https://www.isaacbooks.org/files/BOOK_chem_2_chapters.pdf)

**Time: as long as you like, chose a chapter to begin with that you enjoyed at GCSE, read through the chapter and then attempt some of the questions. Make a note of some of the questions you did not understand.**



#### Read - Where can chemistry take you?

The world of chemistry links to many different areas of life. Click on the web link and discover chemistry beyond A level – where might you go?

Link

<https://www.myheplus.com/post-16/subjects/chemistry>

**Time: as long as you like...**



#### Listen – Chemistry exploration to take out with you!

There are loads of podcasts out there – here are 3 that are all about chemistry from Prof Brian Cox and Robin Ince and guests. Download them to your phone when you go out and do some exercise. I give you.... - The Infinite Monkey Cage

Links:

<http://tiny.cc/z63ioz>

<http://tiny.cc/o03ioz>

<http://tiny.cc/123ioz>

**Time: Approx. 40 minutes each.**



#### Complete - Think about organic chemistry

This activity gives you the opportunity to practise organic chemistry, which is based on chains of carbon atoms and links to biochemistry and biology.

Link - <https://nrich.maths.org/6562>

**Time: 30 minutes**



#### Read – Head Start to A Level chemistry

Download this book from the web link below. Study three or four pages per week. Answer up to 2 questions of your choice at the end of each section.

Link - <http://tiny.cc/oh3ioz>

**Time: 40 minutes per sitting.**



#### Watch - The first lecture from the 2012 RIGB's Christmas Lectures

Watch Prof Peter Wothers, the modern alchemist, as he unpicks the chemistry of the world around us - looking at air

Link <http://tiny.cc/en3ioz> **Time: 60 minutes**



#### Complete – Big and Small numbers in chemistry.

There are lots of different numbers you will use in chemistry, from the very large to the very small. Practice your problem solving and maths skills by answering the questions on the web link below. Beware – some of these involve you making approximations and estimates – and for others you may want to do some research!

Link: <https://nrich.maths.org/7428>

**Time: Approx. 1 hour**



**Watch**  
**The second lecture from  
the 2012 RIGB's Christmas  
Lectures**

Watch Prof Peter Wothers, the modern alchemist, as he unpicks the chemistry of the world around us - looking at water

**Link** <http://tiny.cc/xq4ioz>

**Time: 60 minute**

**Link**

**Time:**



**Read –**  
**Analytical chemistry introduction**

Look at the resources from the web link below (you may need to register first). Analytical chemistry is used to work out the structure of unknown compounds. In Year 12 chemistry, we look at mass spectrometry and infrared (IR) spectroscopy. In Year 13 we look at nuclear magnetic resonance (NMR)

**Link -** <http://tiny.cc/184ioz>

**Time: 40 minutes per sitting.**

**Link**

**Time:**

<http://tiny.cc/184ioz>



**Watch -**  
**The third lecture from  
the 2012 RIGB's  
Christmas Lectures**

Watch Prof Peter Wothers, the modern alchemist, as he unpicks the chemistry of the world around us - looking at earth

**Link** <http://tiny.cc/ju4ioz>

**Time: 60 minutes**

**Any questions please contact:**

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