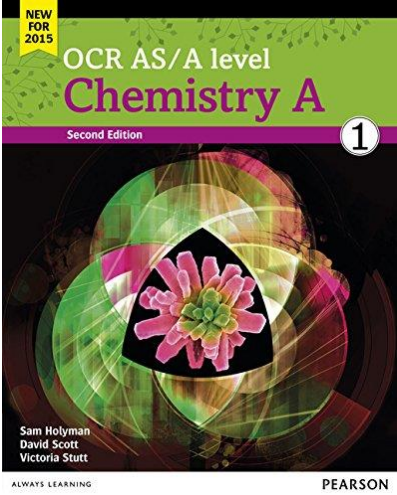

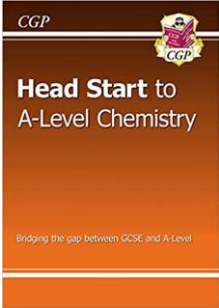
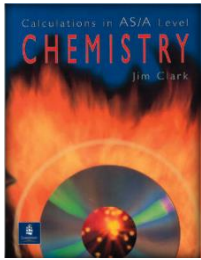
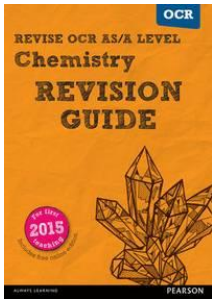
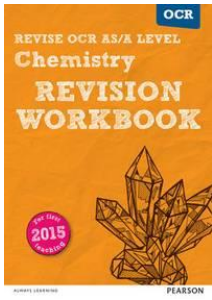




YEAR 12 TRANSITION PROGRAMME - INDEPENDENT STUDY TASK  
SUBJECT NAME : Chemistry

Activity	Main study Independent Study Task Activity Guidance Notes	Suggested supporting visits or readings
Task 1	<p>In chemistry there are lots of key words and terms. The more you can learn the more marks you will get!</p> <p><b>Your task is to complete the cross word containing many of these key words – some you may know, some you may not!</b></p> <p>There is also a hidden word to try and determine from the shaded squares.</p> <p><b>Challenge:</b> Find the definition of the hidden word.</p>	<p>The textbook may help you if you buy that over the Summer:</p> <p><b>OCR AS/A level Chemistry</b> <b>Publisher:</b> Pearson (22 Jun. 2015) <b>ISBN-10:</b> 1447990781 <b>ISBN-13:</b> 978-1447990789</p>  <p>NEW FOR 2015 OCR AS/A level <b>Chemistry A</b> Second Edition 1 Sam Holyman David Scott Victoria Stutt ALWAYS LEARNING PEARSON</p>
Task 2	<p><b>Fancy a book to read? Then look no further!</b></p> <p>Choose one of the following books to read over the summer – it will be much more interesting than just taking selfies!</p> <ul style="list-style-type: none"><li>▪ <b>A short history of nearly everything</b>, Bill Bryson</li><li>▪ <b>Uncle Tungsten</b>, Oliver Sacks</li><li>▪ <b>Molecules of Murder</b>, John Emsley</li><li>▪ <b>The Periodic Table</b>, Primo Levi</li><li>▪ <b>Periodic Tales: The Curious Lives of the Elements</b>, Hugh Aldersey-Williams</li><li>▪ <b>The Science of Everyday Life: Why Teapots Dribble, Toast Burns and Light Bulbs Shine</b>, Marty Jopson</li><li>▪ <b>Bad Science</b>, Ben Goldacre</li></ul>	<p>If you have particularly enjoyed any of these books and are looking for some more inspiration of what you can read, or to find out a little more about the book you have read head to the Chemistry World and listen to their Book Club podcasts: <a href="https://www.chemistryworld.com/chemistry-world-book-club-podcast/216.subject">https://www.chemistryworld.com/chemistry-world-book-club-podcast/216.subject</a></p> 

<p><b>Task 3</b></p>	<p><b>Head Start to A-level Chemistry (Paperback) CGP A-Level Chemistry</b></p> <p>This fantastic Head Start book from CGP is the ideal way to bridge the gap between GCSE and A-Level Chemistry. It recaps all the crucial topics you'll need to remember from GCSE, with crystal-clear study notes and examples, plus practice questions to test your understanding.</p>  <p>Free to download on Amazon!  <a href="https://www.amazon.co.uk/Head-Start-level-Chemistry-Level/dp/1782942807">https://www.amazon.co.uk/Head-Start-level-Chemistry-Level/dp/1782942807</a></p>	<p><b>Calculations in AS/A Level Chemistry (Paperback) Jim Clark</b>  ISBN-10: 0582411270</p>  <p>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.</p>
<p><b>Task 4</b></p>	<p><b>Exhausted everything that Netflix has to offer? Try some of these!</b></p> <p><b>Rough science – the Open University – 34 episodes available</b>  Real scientists are 'stranded' on an island and are given scientific problems to solve using only what they can find on the island. Great fun if you like to see how science is used in solving problems. There are six series in total including:  <a href="http://www.dailymotion.com/playlist/x2igiq_Rough-Science_rough-science-full-series/1#video=xxw6pr">http://www.dailymotion.com/playlist/x2igiq_Rough-Science_rough-science-full-series/1#video=xxw6pr</a>  <a href="https://www.youtube.com/watch?v=IUoDWAt259I">https://www.youtube.com/watch?v=IUoDWAt259I</a></p> <p><b>A thread of quicksilver – The Open University</b>  A brilliant history of the most mysterious of elements – mercury. This program shows you how a single substance led to empires and war, as well as showing you come of the cooler properties of mercury.  <a href="https://www.youtube.com/watch?v=t46lVtXHHTA">https://www.youtube.com/watch?v=t46lVtXHHTA</a></p> <p><b>10 weird and wonderful chemical reactions</b>  10 good demonstration reactions, can you work out the chemistry of...any...of them?  <a href="https://www.youtube.com/watch?v=0Bt6RPP2ANI">https://www.youtube.com/watch?v=0Bt6RPP2ANI</a></p>	<p>Lots of students have also found the following resources really useful to support them in AS/A level Chemistry:</p> <p><b>Publisher:</b>  Pearson Education (28 Jan. 2016)  <b>ISBN-10:</b>  1447984374  <b>ISBN-13:</b> 978-1447984375</p>  <p><b>Publisher:</b>  Pearson Education (27 Jan. 2016)  <b>ISBN-10:</b>  1447984323  <b>ISBN-13:</b> 978-1447984320</p> 

<p><b>Task 5</b></p>	<p><b>Missing trips to the cinema movies?</b></p> <p>Watch one of the following and then follow the links below to find out a little more about the Science in each of these films.</p> <p><b>Dantes Peak 1997:</b> Volcano disaster movie Use the link to look at the Science of acids and how this links to the movie:</p> <p><a href="http://www.open.edu/openlearn/science-maths-technology/science/chemistry/dantes-peak">http://www.open.edu/openlearn/science-maths-technology/science/chemistry/dantes-peak</a></p> <p><b>Fantastic 4 2005 &amp; 2015:</b> Superhero movie Michio Kaku explains the “real” science behind fantastic four <a href="https://archive.nerdist.com/michio-kaku-explains-the-real-science-behind-fantastic-four/">https://archive.nerdist.com/michio-kaku-explains-the-real-science-behind-fantastic-four/</a></p>	<p><b>Bored of looking at the screen?</b></p> <p>Try one of these podcasts:</p> <p><b>Our Elements</b> Hear the story behind the elements of the Periodic Table. <a href="https://www.chemistryworld.com/our-elements-podcasts/1659.more">https://www.chemistryworld.com/our-elements-podcasts/1659.more</a></p> <p><b>Chemistry World</b> Listen to chemical stories, interviews, news and opinions. <a href="https://www.chemistryworld.com/podcasts">https://www.chemistryworld.com/podcasts</a></p> <p><b>Chemistry in its element, RSC</b> Learn about the story behind each element. <a href="https://www.rsc.org/periodic-table/podcast/1/hydrogen">https://www.rsc.org/periodic-table/podcast/1/hydrogen</a></p> <p><b>ReAct Podcast</b> Experienced teachers talk about some of the trickiest topics in 16+ chemistry courses and how to overcome them. <a href="https://edu.rsc.org/resources/react-podcasts/1025.article#!cmpid=CMPO0001670">https://edu.rsc.org/resources/react-podcasts/1025.article#!cmpid=CMPO0001670</a></p>
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**Please complete the set tasks and submit to your subject teacher on the first lesson in September. If you are unable to print the completed work, please email it your teacher**  
**Chemistry teacher:**  
 Miss Parker [eleanor.parker@tolworthgirlsschool.co.uk](mailto:eleanor.parker@tolworthgirlsschool.co.uk)



**Places to go for help:**

1. The specification for OCR Chemistry A – this explains exactly what you need to learn for your exams  
<https://www.ocr.org.uk/Images/171720-specification-accredited-a-level-gce-chemistry-a-h432.pdf>
2. Practice exam papers from 2016 <https://www.ocr.org.uk/qualifications/past-paper-finder/>
3. Practical handbooks explain the practical work you need to know  
<https://www.ocr.org.uk/Images/208932-chemistry-practical-skills-handbook.pdf>
4. Maths skills support <https://www.ocr.org.uk/Images/295468-chemistry-mathematical-skills-handbook.pdf>
5. The internet has many other resources to support study.:
  - The Royal Society of Chemistry (RSC) - the RSC do everything from naming new elements and lobbying MPs, to improving funding for research sciences in the UK. You'll find lots of handy resources on their website.
  - The Student Room - join the A-level Chemistry forums and share thoughts and ideas with other students if you're stuck with your homework. Just be very careful not to share any details about your assessments, there are serious consequences if you're caught cheating.
  - YouTube - has thousands of Chemistry videos. FreeScienceLessons, Khan Academy and Snap Revise (although this required a subscription) are amongst the best for Chemistry A-level.

6. Textbooks - our approved textbooks are published Pearson.
7. Revision guides - these are great if you want a quick overview of the course when you're revising for your exams. Remember to use other tools as well, as these aren't detailed enough on their own.
8. Magazines - Focus, New Scientist or Philip Allan updates can help you put the chemistry you're learning in context. Also great for discussion when you start your University Interviews!