



Curriculum Content	Assessment	What homework will they have?	I'm not an expert, so how can I help?
<p><b>What will my child be studying this term?</b>                      The curriculum within Chemistry is intended to consolidate and build upon learning gained in Year 11, and continue to engage, enthuse and inspire students about Chemistry and its wider applications. The curriculum covers the OCR AS and A-level programme of study.</p> <p>The key principles students are expected to know in the Autumn term are those from the new OCR Chemistry specification detailed below.</p> <p>More detailed learning objectives for the Year 12 Chemistry course can be found as detailed in the <a href="#">specification</a>.</p>	<p>Progress tests will occur around the end of each half term, which students will be expected to prepare thoroughly for. This will enable students and staff to assess progress and allow for any necessary intervention. Students will be offered additional support and a second opportunity to be tested on the subject matter until the student is confident with the topic.</p> <p>Short homework tasks and regular progress checks set by staff members on a lesson by lesson basis are due the next lesson with that staff member.</p>	<p>Homework tasks will be set every lesson by each of the two Chemistry teachers. Homework in Chemistry can take many forms; from written questions, to researching a particular topic, to preparing a verbal presentation, to preparing for a progress test. Areas for improvement on homework should always be acted upon – either corrections made or a discussion with that staff member.</p> <p>Wider reading around the topic areas (from the textbook) or scientific websites such as Nature (<a href="http://www.nature.com">www.nature.com</a>), New Scientist (<a href="http://www.newscientist.com">www.newscientist.com</a>), Royal Society for Chemistry (<a href="http://www.rsc.org">www.rsc.org</a>) and Chemicool (<a href="http://www.chemicool.com">www.chemicool.com</a>) are highly recommended. Additional reading can be found in books such as "A Short History of Nearly Everything"- Bill Bryson, "Absolute Zero" by John Shachtman, "Napoleon's Buttons: 17 Molecules that Changed History" by Le Couteur &amp; Burreson and "Oxygen: The Molecule that</p>	<p>A great activity for students who wish to take their understanding of science further is to follow news stories about current advances in science and technology. Links can be found at: <a href="http://www.sciencedaily.com/">www.sciencedaily.com/</a> and <a href="http://www.bbc.co.uk/news/science_and_environment/">www.bbc.co.uk/news/science_and_environment/</a></p>

**Content covered:**

Teaching is split between two Chemistry teachers, reflecting their subject specialisms within science.

In the Autumn term, students will complete the following topics;

(Topic notes and additional material will be available on the Chemistry Edmodo group which the students can join)

Foundations in Chemistry

- Atoms, compounds, molecules and equations
- Amount of substance
- Acid–base and redox reactions
- Electrons, bonding and structure

Periodic Table and Energy

- The periodic table and periodicity
- Group 2 and the halogens
- Qualitative analysis
- Enthalpy changes
- Reaction rates and equilibrium (qualitative)

**Literacy and numeracy:**

During the Year 12 course, there are many opportunities to develop numeracy and literacy skills. We practice concentration calculations, plotting rate graphs, calculating yield, pKa values and equilibrium constants. These are also further developed and emphasis is put upon analysis of scientific data from tables and other data sources.

The use of scientific terminology is at the forefront of written work with students encouraged to use appropriate terms from the outset. We also further develop the use of written skills to describe, explain and justify ideas.

**What can I do to help my child?**

Firstly, ask your child what they have been learning about in Chemistry lessons. Encourage them to read around the subject using the links provided below to stimulate and maintain a genuine interest in the subject. Encourage them to seek support from their teachers if they are unsure about any part of their homework or in class learning – this is the best way for them to develop proactive independent study skills which will set them up for academic success.

Keep an eye out for Chemistry-related television programmes as this can demonstrate real-life applications of what is studied in class, as well as provides career inspiration. Ensure your child joins the Chemistry Edmodo group so they have access to all lesson notes and powerpoints, progress tests, past papers and other helpful tools such as the ability to blog to other students and/or staff with specific questions on the subject.

**Additional resources and details of core texts used:**

The LRC in school and local libraries stock many books on science and technology which students may wish to read as part of their wider learning. For support with topics linked to lessons, the S-cool website has excellent sections on each of the Chemistry topics studied ([S-cool](#)), including a useful selection of online test questions. The websites [Chemrevise](#) and [Chemguide](#) offer tutorials and resources.

For specific support with the A-level courses, the OCR website has links to the specification followed and also specimen examination papers and their mark schemes which students may find useful ([OCR website](#)).

Students will also find a text book and revision guide helpful to support their studies – [OCR A level Chemistry textbook](#), but shop around to help your child find which book is accessible to them (Waterstones is a good outlet to look at the range of available revision guides). Just ensure the books are designed for the new OCR A-level Chemistry course.

**Teaching group arrangements:**

**Where can I get more advice?**

Dr V Larner (Curriculum Leader) – [vlarner@stratfordschool.co.uk](mailto:vlarner@stratfordschool.co.uk). Please include the name of your child's teacher so the message can be forwarded appropriately.