

Chemistry transition work

This work is designed for students who may be interested in studying Chemistry at A level. It is not a comprehensive list and you may well find other activities of interest to pursue over the next few weeks as well. Students can find the worksheets challenging – there is no requirement to complete all the questions and you may feel that reviewing your chemistry notes is more useful to you at this stage.

Please do contact me via email in the Chemistry department if you wish to share ideas, send me examples of the explore activities you have completed or have any questions.

Mrs Fernandez-Gonzalez

WEEK 1

Fundamentals:

- A. If you have access to Kerboodle, complete the retrieval tasks on bonding and structure
<https://www.kerboodle.com/app/courses/32658/modules/Resources/node/29042/page/1/content/268396>
<https://www.kerboodle.com/app/courses/32658/modules/Resources/node/29042/page/1/content/268459>
- B: Transition Worksheet 2 (found on the TGGs website in Chemistry A level transition work).

Explore: Options include

- Watch the following TED talk
TED talk: Chemistry is fun;
https://www.youtube.com/watch?v=3LhNRJkh87w&feature=emb_rel_end
- Try this interactive activity (there are many other interesting topics on the site to explore as well). <https://learner.org/series/interactive-the-periodic-table/>
- Research a chemical which plays a significance role in our lives or has been developed to serve an important purpose and produce a poster for display. Areas of interest could include medicine, plastics and material science, food technology, environmental science amongst many others. Consider including:
 - Structure
 - Molecular mass
 - Naturally occurring (where found) or synthetic (process?)
 - Why this compound is significant

WEEK 2/3

Fundamentals

- A. If you have access to Kerboodle, complete the retrieval tasks on moles and calculations
<https://www.kerboodle.com/app/courses/32658/modules/Resources/node/29042/page/1/content/268404>
<https://www.kerboodle.com/app/courses/32658/modules/Resources/node/29042/page/1/content/268497>
- B. Complete the questions on the three worksheets found here:
<https://mathsmadeeasy.co.uk/gcse-chemistry-revision/chemical-calculations-and-moles/>
- C. **Explore: Options include**
- Watch these videos:
 - Top 10 greatest female scientists
<https://www.youtube.com/watch?v=IWb6-nCiQ2s>

- TED talk: Women in science
<https://www.youtube.com/watch?v=KiGOpT9T4A8>
- Read this article on how smart phones could be used to detect viruses
<https://www.chemistryworld.com/news/smartphone-setup-could-put-a-stop-to-norovirus-outbreaks/3010901.article>
- Write a news article suitable for a KS3 audience on how chemistry is making a difference. Think about how to make it engaging with the use of relevant pictures and graphics.

WEEK 4/5

Fundamentals:

- A. If you have access to Kerboodle, complete the retrieval tasks on energy and rates of reaction

<https://www.kerboodle.com/app/courses/32658/modules/Resources/node/29042/page/1/content/268463>

<https://www.kerboodle.com/app/courses/32658/modules/Resources/node/29042/page/1/content/268433>

- B: Complete the Transition worksheet 3 (found on the TGGs website in Chemistry A level transition work) – don't forget to check your answers.

Explore: Options include

- Start becoming familiar with the Royal Society of Chemistry website e.g. The interactive Periodic Table <https://www.rsc.org/periodic-table>. To get the most from the website, for example access to the articles you will need to register.
- Review where Chemistry could lead you in the future by exploring this site and watching the videos: A future in Chemistry: Making a difference
https://edu.rsc.org/future-in-chemistry?_ga=2.80613335.1384769438.1586424424-1009743148.1581632161&_gac=1.180214614.1586426136.Cj0KCQjwj7v0BRDOARIsAGh37iqW6XsRiVVgrevSCqZDIEL81fssuvxXNLJAI6MQ9Wfa0gnlfHCFXwQaAgioEALw_wcB
- Make a ppt or poster on a career which uses a Chemistry qualification suitable for a KS4 audience.
- Write a review of one of the books below or another Chemistry / Science related book. Make your review suitable for a KS4 audience.

Suggested reading

Stuff Matters by Mark Miodownik

The Disappearing spoon by Sam Kean

H₂O The Biography of water by Philip Ball

A short History of Nearly Everything by Bill Bryson

Uncle Tungsten by Oliver Sacks

The Poisoner's Handbook by Deborah Blum

The Billion Dollar Molecule by Barry Werth