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| <p>Y11 Home Study GCSE to A-Level Chemistry: Bridging Work</p>  <p>Contact: Mr Blair a.blair@ralphallenschool.com</p> |  <p>Complete research on the chemistry behind fireworks. Write an information card to explain what you have learnt. Use this website below to help.</p> <p>www.compoundchem.com/2013/12/30/the-chemistry-of-fireworks/ Time: 1 hour</p> |  <p>Listen to the Chemistry for your life podcast explaining how the element helium changes your voice. Write a paragraph to explain the science behind the high squeaky voice we hear when we breathe it in.</p> <p>https://www.stitcher.com/podcast/podcast-for-your-life/chemistry-for-your-life Time: 1 hour</p> |  <p>Play the balancing symbol equation simulation to help you visualise how many atoms are needed to balance an equation.</p> <p>https://phet.colorado.edu/en/simulation/balancing-chemical-equations Time: 15 min</p> |
|  <p>Read the following internet links and explain in a 600 word essay the Haber process, the conditions of the Haber process and why the specific conditions are so important.</p> <p>https://www.thechemicalengineer.com/features/cewctw-fritz-haber-and-carl-bosch-feed-the-world/</p> <p>https://www.chemguide.co.uk/physical/equilibria/haber.html Time: 1 hour</p> |  <p>Play the balancing symbol equation game where you put your balancing symbol equation skills into practise Try the difficult balancing equations sheet as well.</p> <p>https://education.ilab.org/elementbalancing/</p> <p>https://www.northallegheny.org/cms/lib/PA01001119/Centricity/Domain/1083/balancingpractice.pdf Time: 1 hour</p> |  <p>Complete the questions on knowledge from GCSE Chemistry that you need to know to move on to A-Level. Answer 60 marks worth of questions from the link.</p> <p>https://www.physicsandmathstutor.com/chemistry-revision/gcse-aqa/atomic-structure-and-periodic-table Time: 1 hour</p> |  <p>Watch the video where Professor Jim Al-Khalili tells the story of the greatest scientific discovery ever - that everything is made of atoms. Write 10 interesting facts you learnt while watching.</p> <p>https://www.youtube.com/watch?v=GOJFznzSZhM Time: 1 hour</p> |
|  <p>Complete the task to create timeline showing the different scientists involved in the model of the atom changing over time. You could use your GCSE revisions guides to help you with this. There is an example on the link below.</p> <p>https://www.compoundchem.com/2016/10/13/atomicmodels/ Time: 1 hour</p> |  <p>Watch the metals documentary and write down as many uses of different metals as you can. Once you have done this, research using the internet for a good chemical explanation as to why they are good for those uses.</p> <p>https://www.youtube.com/watch?v=7pzl14KaBng Time: 2 hours</p> |  <p>Watch the balancing symbol equation video and make sure you remember how to balance equations.</p> <p>https://www.youtube.com/watch?v=RnGu3xO2h74 Time: 15 mins</p> |  <p>Submitted Task Answer the following 6 mark questions using your GCSE knowledge and some A-level knowledge you may have picked up.</p> <ol style="list-style-type: none"> 1) Explain the structure and some uses of metals and their reactions with acid. (Add balanced equations.) (6) 2) Explain how ideas about the atom have changed over time. (6) 3) How are polymers formed? Discuss the advantages and disadvantages. (6) <p>Submit answers to Mr Blair: a.blair@ralphallenschool.com Time: 1 hour</p> |

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