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| **6th Form**  **Preparation work for**  **Chemistry**  **Summer 2022** | **Complete** research on the chemistry behind fireworks. Write an information card to explain what you have learnt.  ***Time: 1 hour*** | **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.  [*Podcast: How does helium change your voice*.](https://www.stitcher.com/show/chemistry-for-your-life/episode/how-does-helium-change-your-voice-68867031)  ***Time: 1hr*** | **Play** the balancing symbol equation  simulation to help you visualise how many atoms are needed to balance an equation.  [*Balancing symbol equation simulation*](https://phet.colorado.edu/en/simulation/balancing-chemical-equations)  ***Time: 15 min*** |
| **Read** the article on using plastics in the body. Write an essay of 600-700 words to describe all the different  uses.  [*Article: Using plastics in the bod*](https://bwcet-my.sharepoint.com/:b:/p/lhill_str/EWm3DpDTTYFNlv-mmtV7R00B43Pk_Xuu7NHaCl3SQGNyrA?e=UvBdN1)*y*  ***Time: 1 hour*** | **Play** the balancing symbol equation game where you put your balancing symbol equation skills into practise  [*Balancing symbol equation game*](https://education.jlab.org/elementbalancing/)  ***Time: 15 mins*** | **Complete** the questions on knowledge from GCSE Chemistry that you need to know to move on to A  Level.  [*Pre-knowledge Topic: Atomic Structure*](https://bwcet-my.sharepoint.com/:w:/p/lhill_str/ERc4FaWeRV5DrSXxmyD_65QBrGd7YoHq5bBb-WF_XukXKg?e=b1QE50)  ***Time: 1 hour*** | **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.  [*Video: Atoms 1 – Clash of the Titans*](https://www.youtube.com/watch?v=GOJFznzSZhM)  ***Time: 1 hour*** |
| **Complete** the task to create timeline showing the different scientists involved in the model of the atom changing over time. Follow the success criteria to help you complete it.  [*Task: History of the Atom*](https://bwcet-my.sharepoint.com/:w:/p/lhill_str/EUbB_LZgeClDhQIqTPh7mmUBlk52GRqohjzRsFDd_-gWLw?e=SstVuv)  ***Time: 1 hour*** | **Read** the balancing symbol equation notes and worked examples. Write a flash card to describe how to balance an equation.  [*Balancing Symbol Equation Notes and Examples*](https://www.chemteam.info/Equations/Balance-Equation.html)  ***Time: 15 mins*** | **Watch** the balancing symbol equation video and make sure you remember  how to balance equations.  [*Balancing symbol equation video*](https://www.youtube.com/watch?v=RnGu3xO2h74)  ***Time: 15 mins*** |  |