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| **6th Form**  **Preparation work for**  **Biology**  **Summer 2022** | **Complete** a mind map on aerobic and anaerobic respiration. You must include the equations, the organelle where it takes place and the importance of respiration in living organisms. Use the link below to BBC Bitesize to help you. Ensure you complete this task before moving onto task 2.  [**Respiration – BBC Bitesize**](https://www.bbc.co.uk/bitesize/guides/zcjy97h/revision/1)  ***Time: 1 hour*** | **Read** the article and write a report of its findings. Your report should include the following:  What is Henneguya salminicola and what is unusual about it? Link to aerobic respiration. What was found when scientists sequenced and analysed its genome? Why is this discovery significant for evolutionary research?  [**Henneguya salminicola**](http://www.sci-news.com/biology/henneguya-salminicola-08166.html)  ***Time: 1 hour*** | **Listen** to the podcast “The frozen zoo”. Create a table stating some advantages and disadvantages of the frozen zoo and its role in conservation.  [**The Frozen Zoo**](https://www.nationalgeographic.com/podcasts/overheard/season-2/episode-8-frozen-zoo/)  ***Time: 40 minutes*** |
| **Complete** a profile of following famous female biologists.  Jane Goodall, Nettie Stevens and Elizabeth Helen Blackburn. Include information on their background, their discoveries and the impact their discoveries have had on biology.  ***Time: 1 hour*** | **Read** the article on curing HIV. Think about how this discovery could impact the treatment of a disease which was previously thought to be incurable. Write a list of the words in the article that you do not understand. Research their meaning and create a key word glossary of these terms.  [**Second patient cured of HIV**](http://www.sci-news.com/medicine/london-patient-hiv-08213.html)  ***Time: 30 minutes*** | **Watch** the BBC documentary ‘Corona Virus – Part 1’. The documentary investigates the scientific facts and figures behind the biggest public health crisis in living memory.  [**Corona Virus – Part 1**](https://www.bbc.co.uk/iplayer/episode/m000h3nm/horizon-2020-9-coronavirus-special-part-1)  ***Time: 1 hour*** | **Complete** an instruction manual on unit conversion. You must explain how to convert between:   * km/m/cm/mm/µm/nm * kg/g/mg/µg * h/min/s/ms * m2/ cm2 * dm3/cm3/ µl   Ensure you include what each abbreviation stands for e.g. cm = centimetres  ***Time: 1 hour*** |
| **Watch** the Crash Course video on Biological Molecules. Produce a bubble map for each of the 3 biological molecules discussed. Write a list of the words in the video that you do not understand. Research their meaning and create a key word glossary of these terms.  [**Biological Molecules**](https://www.youtube.com/watch?v=H8WJ2KENlK0&list=PL3EED4C1D684D3ADF&index=4&t=0s)  ***Time: 30 minutes*** | **Read** the article on protein. Proteins are large biological molecules found in all living organisms. Consider the diversity of proteins and their wide variety of functions in living things.  [**Protein**](https://basicbiology.net/micro/biochemistry/protein)  ***Time: 1 hour*** | **Watch** the Crash Course video on DNA Structure and Replication. Write down 10 facts from the video. Write a list of the words in the video that you do not understand. Research their meaning and create a key word glossary of these terms.  [**DNA Structure and Replication**](https://www.youtube.com/watch?v=8kK2zwjRV0M&list=PL3EED4C1D684D3ADF&index=10)  ***Time: 30 minutes*** | Dna clipart kid |