

<p style="text-align: center;">Y11 Home Study GCSE to A-Level Biology: Bridging Work</p> 	 <p>Complete a mind map about 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.</p> <p>https://www.bbc.co.uk/bitesize/guides/zc9y97h/revision/1</p> <p>Time: 1 hour</p>	 <p>You should complete the first activity to the left before doing the following. Read the article and write a report of its findings. Your report should include the following:</p> <p>What is <i>Henneguya salminicola</i>? What is unusual about it? What was found when scientists sequenced and analysed its genome? Why is this discovery significant for evolutionary research?</p> <p>http://www.sci-news.com/biology/henneguya-salminicola-08166.html</p> <p>Time: 1 hour</p>	 <p>Listen to the podcast "The frozen zoo", from the National Geographic. Create a table with two columns, one title advantages and one disadvantages. List some advantages and disadvantages of the frozen zoo and its role in conservation in your table.</p> <p>https://www.nationalgeographic.com/podcasts/overheard/season-2/episode-8-frozen-zoo/</p> <p>Time: 30 minutes</p>
 <p>Complete a profile of one (or more) of the 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.</p> <p>Wikipedia is not always a reliable website, but it is a useful starting point in this instance.</p> <p>Time: 1 hour</p>	 <p>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.</p> <p>Write a list of either scientific or words that you do not understand in the article. Research their meaning and create a key word glossary of these terms. You should aim to include a minimum of 10 words in your glossary.</p> <p>http://www.sci-news.com/medicine/london-patient-hiv-08213.html</p> <p>Time: 30 minutes</p>	 <p>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.</p> <p>https://www.bbc.co.uk/iplayer/episode/m000h3n/m/horizon-2020-9-coronavirus-special-part-1</p> <p>Time: 1 hour</p>	 <p>Complete an instruction manual on unit conversion. You must explain how to convert between:</p> <p style="text-align: center;">km/m/cm/mm/µm/nm kg/g/mg/µg h/min/s/ms</p> <p style="text-align: center;">m²/cm² dm³/cm³/µl</p> <p>Ensure you include what each abbreviation stands for. For example, you could write: To convert from km (kilometres) to m (metres) multiply the number by 1000. For example, 1km is the same as 1000m (1x1000)</p> <p>Time: 1 hour</p>
 <p>Watch the Crash Course video on Biological Molecules. Make a list of bullet points (this may include diagrams) for the 3 biological molecules on the video (carbohydrates, proteins and fats). Some of the information is A-Level standard and so you may also need to write a list of any new key words from the video that you do not understand. Research their meaning and create a key word glossary of these terms (as per previous task).</p> <p>https://www.youtube.com/watch?v=H8WJ2KENIK0&list=PL3EED4C1D684D3ADF&index=4&t=0s</p> <p>Time: 1 hour</p>	 <p>Read the article about proteins. Proteins are large biological molecules found in all living organisms. Consider the diversity of proteins and their wide variety of functions in living things.</p> <p>You could add to your bullet points about proteins from the previous task if you wish.</p> <p>https://basicbiology.net/micro/biochemistry/protein</p> <p>Time: 1 hour</p>	 <p>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.</p> <p>https://www.youtube.com/watch?v=8kK2zwrV0M&list=PL3EED4C1D684D3ADF&index=10</p> <p>Time: 30 minutes</p>	<p style="text-align: center;">SUBMITTED TASKS</p>  <p>Answer the following questions that cover content learned at GCSE and during completion of this home learning menu.</p> <ol style="list-style-type: none"> 1. What are the differences between aerobic and anaerobic respiration (6 marks) 2. Describe the structure of proteins and give an example of a protein and its function (6 marks) 3. Draw and label diagrams to show the structure and organization of DNA in the nucleus. Labels to include nucleotide, phosphate, deoxyribose sugar, base, base pair, DNA, chromosome, nucleus (6 marks) <hr style="width: 20%; margin-left: auto; margin-right: 0;"/> <p>Time: 1 hour</p>

