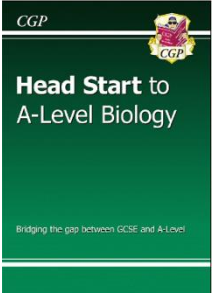
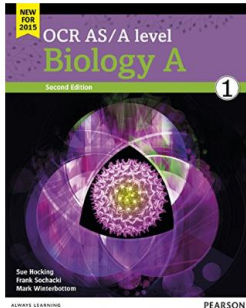
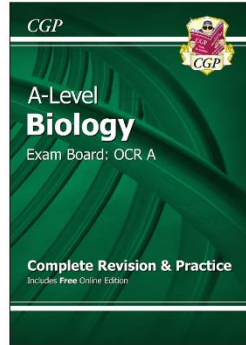
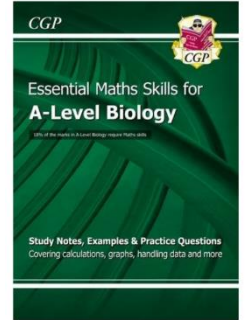




SUBJECT NAME : **BIOLOGY**

Activity	Main study Independent Study Task Activity Guidance Notes	Suggested supporting visits or readings.
<p><b>Task 1</b></p>	<p>An introduction to nearly all of the topics studied at AS Biology is found in, 'Head Start to A-Level Biology'. The pdf version is available alongside this task sheet, or the book costs £5 from CGP</p> <p>Your task is to read this short guide and <b>answer any 50 questions</b> from the bottom of the pages - that is only one question for each day of the summer holidays.</p> <p>Answer the questions on lined paper or in a Word Document, making the page and question number clear next to each answer.</p>	<p><b>Head Start to A-Level Biology</b></p> <p><b>Publisher:</b> Coordination Group Publications Ltd (CGP) (2 Mar. 2015)  <b>ISBN-10:</b> 1782942793  <b>ISBN-13:</b> 978-1782942795</p>  <p>Free to download with the app  <a href="https://www.amazon.co.uk/Head-Start-Level-Biology-CGP-ebook/dp/B095Z1TM6C/ref=sr_1_1?dchild=1&amp;keywords=head+start+to+biology+a+level&amp;qid=1626104936&amp;sr=8-1">https://www.amazon.co.uk/Head-Start-Level-Biology-CGP-ebook/dp/B095Z1TM6C/ref=sr_1_1?dchild=1&amp;keywords=head+start+to+biology+a+level&amp;qid=1626104936&amp;sr=8-1</a></p>
<p><b>Task 2</b></p>	<p>Fancy a book to read over the Summer holidays? Then look no further!</p> <p>Choose one of the following biology related books to read over the summer and write a short synopsis on it (100-200 of your own words).</p> <ul style="list-style-type: none"> <li>▪ <b><i>The Immortal Life of Henrietta Lacks</i></b> by Rebecca Skloot. How one woman's cancer cells changed the medical world forever, and because a multi-million dollar industry.</li> <li>▪ <b><i>The Incredible Unlikelihood of Being</i></b> by Alice Roberts. Alice Roberts combines embryology, genetics, anatomy, evolution and zoology to tell the incredible story of the human body</li> <li>▪ <b><i>Blood Work: A Tale of Medicine and Murder in the Scientific Revolution</i></b> by Holly Tucker. The dramatic history of blood transfusions, from 17th century France onwards.</li> </ul> <p>There are many more ideas on this website:  <a href="http://intobiology.org.uk/how-to-read-around-the-subject/">http://intobiology.org.uk/how-to-read-around-the-subject/</a></p> <p>For all sciences there are some extremely interesting articles on the New Scientist website:  <a href="https://www.newscientist.com/">https://www.newscientist.com/</a></p>	<p>You might also be flicking through the TV channels on rainy days, so occasionally look through the documentary channels and find programmes that are related to for year 12: cells, DNA, enzymes, communicable diseases, biodiversity, classification, evolution, circulatory and respiratory systems. For year 13: Homeostasis, kidneys, liver, nerves, hormones, the brain, photosynthesis, respiration, genetics, biotechnology and ecosystems conservation.</p> <p>Some documentary ideas can be found here:  <a href="https://www.bbc.co.uk/iplayer/episodes/p01f51s5/pain-pus-and-poison-the-search-for-modern-medicines">https://www.bbc.co.uk/iplayer/episodes/p01f51s5/pain-pus-and-poison-the-search-for-modern-medicines</a></p> <p><a href="https://www.newscientist.com/article/2241718-the-10-best-documentaries-you-should-watch-right-now/">https://www.newscientist.com/article/2241718-the-10-best-documentaries-you-should-watch-right-now/</a></p> <p><a href="https://www.bbc.co.uk/iplayer/categories/science-and-nature/a-z">https://www.bbc.co.uk/iplayer/categories/science-and-nature/a-z</a></p> <p>Some movie ideas:  <a href="https://in.bookmyshow.com/buzz/blog/Movies/8-movies-scientist">https://in.bookmyshow.com/buzz/blog/Movies/8-movies-scientist</a></p> <p><a href="https://www.bioexplorer.net/biology-movies.html/">https://www.bioexplorer.net/biology-movies.html/</a></p>

	<p>BBC Science &amp; Environment news can help keep you up to date with biology-based news:  <a href="https://www.bbc.co.uk/news/science_and_environment">https://www.bbc.co.uk/news/science_and_environment</a></p> <p>Some ideas for other good science/medicine based websites can be found here:  <a href="https://www.uk250.co.uk/science/">https://www.uk250.co.uk/science/</a></p>	<p>There are some fascinating TED Talks:  <a href="https://www.ted.com/talks?sort=newest&amp;topic%5B%5D=biology">https://www.ted.com/talks?sort=newest&amp;topic%5B%5D=biology</a></p> <p>Some ideas for scientists you could follow on Twitter:  <a href="https://www.sciencemag.org/news/2014/09/top-50-science-stars-twitter">https://www.sciencemag.org/news/2014/09/top-50-science-stars-twitter</a></p> <p>Fed up of looking at a screen? Then how about listening to a podcast? There are lots of ideas here:  <a href="https://www.bbcearth.com/blog/?article=the-best-nature-science-and-technology-podcasts">https://www.bbcearth.com/blog/?article=the-best-nature-science-and-technology-podcasts</a></p>
<p><b>Task 3</b></p>	<p>There are many excellent online-based virtual tours/interactive content to allow you to fully immerse yourself into the world of biology as well as going to visit some of these places in person. Here are our recommendations:</p> <ul style="list-style-type: none"> <li>• Museums are now reopening so you could visit them in person or via virtual museum tours online. Here are a few ideas:  <a href="https://www.nhm.ac.uk/visit/virtual-museum.html">https://www.nhm.ac.uk/visit/virtual-museum.html</a> and  <a href="https://www.sciencemuseum.org.uk/virtual-tour-science-museum">https://www.sciencemuseum.org.uk/virtual-tour-science-museum</a> and many more here  <a href="https://interestingengineering.com/11-science-and-tech-museums-you-can-tour-virtually">https://interestingengineering.com/11-science-and-tech-museums-you-can-tour-virtually</a></li> <li>• Many Zoos are also now reopening as well as having great websites, including London Zoo. Take a virtual tour or read about some of the case studies on conservation, such as the Giant Pangolin, the only mammal with scales.  <a href="https://www.zsl.org/zsl-london-zoo/virtual-london-zoo">https://www.zsl.org/zsl-london-zoo/virtual-london-zoo</a> and  <a href="https://www.zsl.org/conservation">https://www.zsl.org/conservation</a></li> <li>• Learn Genetics from Utah University lots of interactive resources to explore, perfectly pitched for GCSE to A-Level. Learn about why some people can taste bitter berries when others can't, to how we clone mice or make glow in the dark jelly fish.  <a href="https://learn.genetics.utah.edu/">https://learn.genetics.utah.edu/</a></li> <li>• "DNA from the beginning" is full of interactive animations that tell the story of DNA from its discovery through to advanced</li> </ul>	<p>In preparation for starting the course in September, you will need to buy the course textbook for Year 12:</p> <p><b>OCR AS/A level Biology A</b></p> <p><b>Publisher:</b> Pearson  <b>ISBN-10:</b> 144799079X  <b>ISBN-13:</b> 978-1447990796</p>  <p>Most students have also found the following revision guides really useful to support them in AS/A level Biology:</p> <p><b>New A-Level Biology: OCR A Year 1 &amp; 2 Complete Revision &amp; Practice</b></p> <p><b>Publisher:</b> CGP  <b>ISBN-10:</b> 1782942998  <b>ISBN-13:</b> 978-1782942993</p>  <p><b>New A-Level Biology: Essential Maths Skills</b></p> <p><b>Publisher:</b> CGP  <b>ISBN-10:</b> 1847623239  <b>ISBN-13:</b> 978-1847623232</p> 

	<p>Year 13 concepts. <a href="http://www.dnaftb.org/">http://www.dnaftb.org/</a></p> <ul style="list-style-type: none"> <li>• One of the first topics you will learn about at A-Level is the amazing interior structure of the cell. This BBC film shows the fascinating workings of a cell:  <a href="http://www.dailymotion.com/video/xzh0kb_the-hidden-life-of-thecell_shortfilms">http://www.dailymotion.com/video/xzh0kb_the-hidden-life-of-thecell_shortfilms</a> or  <a href="https://naturedocumentaries.org/3972/hidden-life-cell-bbc/">https://naturedocumentaries.org/3972/hidden-life-cell-bbc/</a> If these links are expired – google “BBC hidden life of the cell”</li> </ul> <p>If you have aspirations of studying medicine you might find these places or their websites interesting:</p> <ul style="list-style-type: none"> <li>❖ Anaesthesia Heritage Centre</li> <li>❖ British Dental Association Museum</li> <li>❖ Florence Nightingale Museum</li> <li>❖ Museum at St Bartholomew’s Hospital</li> <li>❖ The Old Operating Theatre and Herb Garret</li> <li>❖ Wellcome Collection</li> <li>❖ Body Works</li> <li>❖ Hunterian Museum (Royal College of Surgeons)</li> </ul>	
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Please complete the set tasks and submit to your subject teacher on the first lesson in September. If you are unable to print the completed work, please email it your Biology teachers:

Miss Davidson [sophie.davidson@tolworthgirlsschool.co.uk](mailto:sophie.davidson@tolworthgirlsschool.co.uk)

Miss Martinez [ciara.martinez@tolworthgirlsschool.co.uk](mailto:ciara.martinez@tolworthgirlsschool.co.uk)

Miss Grasso [diana.grasso@tolworthgirlsschool.co.uk](mailto:diana.grasso@tolworthgirlsschool.co.uk)

Mr Ahmed [qasid.ahmed@tolworthgirlsschool.co.uk](mailto:qasid.ahmed@tolworthgirlsschool.co.uk)

#### Places to go for help:

1. The specification for OCR Biology A – this explains exactly what you need to learn for your exams  
<https://www.ocr.org.uk/Images/171736-specification-accredited-a-level-gce-biology-a-h420.pdf>
2. Practice exam papers <https://www.ocr.org.uk/qualifications/as-and-a-level/biology-a-h020-h420-from-2015/assessment/#as-level>
3. Practical handbooks explain the practical work you need to know <https://www.ocr.org.uk/Images/294468-biology-practical-skills-handbook.pdf>
4. Biology drawing skills handbook <https://www.ocr.org.uk/Images/251799-biology-drawing-skills-handbook.pdf>
5. Maths skills support <https://www.ocr.org.uk/Images/294471-biology-mathematical-skills-handbook.pdf>
6. The internet has many other resources to support study.:
  - Physics and Maths Tutor - <https://www.physicsandmathstutor.com/biology-revision/a-level-ocr-a/>
  - A-level notes - <http://www.a-levelnotes.co.uk/ocr-biology-notes.html>
  - Seneca - <https://senecalearning.com/en-GB/blog/free-ocr-a-biology-a-level-revision/>
  - YouTube - has thousands of Biology videos. Crash Course, Khan Academy, Bozeman Science, Free Science Lessons, and Snap Revise (although some of the Snap Revise videos require a subscription) are amongst the best for Biology A-level.

Textbooks - our approved textbooks are published Pearson.