

Longdean School



GCSE to AS
Transition
Work

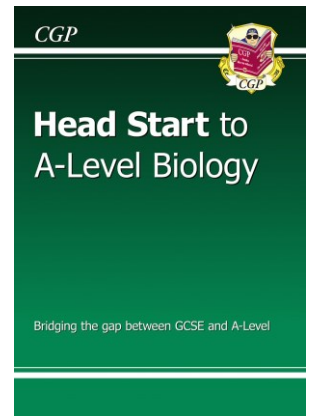
Biology

Bridging the gap between GCSE and A level

Name: _____

In September, you will be starting the OCR Biology A syllabus.

- 1) If you were in for the transition day, you should have a copy of the 'Head start to A level Biology' book. If you were not able to be in then please, if possible, order the following book and work through it. 'Head Start to A-Level Biology' published by CGP. This book is a summary of the basics that we require at A-level. We build on this prior knowledge. If there is any area that you don't quite know, please go through it in more detail. You can use online resources to help as well.



Please do the questions at the end of each page and mark them using the answers in the back of the book.

This is going to be vital due to the disruption that you have faced during your GCSE's and ensuring your basic knowledge is secure.

Please bring your work and textbook in for your first lesson.

- 2) Please sign up the A level transition class on Seneca learning.

<https://senecalearning.com/en-GB/>

Please use your school email address to sign up to Seneca if you do not have an account.

The class code is b5y0jd38yt

There are 3 tasks for you to complete:

- Task 1: GCSE refresher
- Task 2: Misconceptions
- Task 3: Mini assessment

If you do not perform well in a particular section, please revisit this either using the booklet mentioned above or by using the GCSE course assigned to your class on Seneca.

If you are interested to explore the A level course, it has also been assigned to this Seneca class. You will be completing the OCR A level Biology course.

3) You can also reinforce, as well as expand, your knowledge by visiting websites such as:

- <http://nobelprize.org> – Details of the history of the best scientific discoveries
- <http://nature.com> – The site of the scientific journal
- <http://royalsociety.org> – Podcasts, news and interviews with scientists about recent scientific developments
- <http://www.nhm.ac.uk> – The London Natural History Museum's website with lots of interesting educational material
- <http://www.bmj.com> – The website of the British Medical Journal
- http://www.bbc.co.uk/news/science_and_environment - The BBC news page for Science and the Environment
- There are a range of TED talks that may interest you
<http://www.ted.com/talks?sort=newest&topics%5B%5D=science>

4) I would also encourage you to start reading more Biology related books such as:

- Charles Darwin *The origin of species*
- Matt Ridley *Genome: The Autobiography of a Species in 23 Chapters*
- Richard Dawkins *The Selfish Gene; The Blind Watchmaker*
- Steve Jones *Y: The Descent of Men; Almost Like a Whale; Coral*
- James Watson *DNA: The Secret of Life; The Double Helix*
- Lewis Thomas *The Lives of a Cell; The Medusa and the Snail*
- Barry Gibb *The Rough Guide to the Brain*
- Armand Marie Leroi *Mutants: On the Form, Varieties and Errors of the Human Body*
- David S. Goodsell *The Machinery of Life*
- Ernst Mayr *This Is Biology: The Science of the Living World* George C. Williams *Plan and Purpose in Nature*
- Steve Pinker *The Language Instinct*
- Edward O Wilson *The Diversity of Life*
- Richard Leaky *The Origin of Humankind*

5) There are also many magazines, newspapers and journals that may interest you:

- New Scientist
- Scientific American
- Nature
- Science
- Biological Sciences Review
- British Medical Journal
- HuffPost Science

- 6) Over the next few months, we would encourage you to watch some movies that are related to Biology and the issues surrounding them. Here are a few suggestions but you are welcome to watch others. Be critical when you watch them – appreciate the Biology! We would also encourage you to discuss them with other students who will be studying Biology so that you can debate the issues we have proposed below. Please make a few notes in the space provided on the movies you have watched so that we can discuss them at a later date. There are a lot of other good movies out there regarding Biology and conflicts within it. Feel free to watch these and add your thoughts.

Still Alice: Starring Julianne Moore and Alec Baldwin, this film tracks the rapid progress of Alzheimer's and its fallout for an entire family. Still Alice is perhaps a relatively straightforward film on this subject.

Things to think about:

- How does computer technology allows dementia sufferers to manage their symptoms? – or conceal them? Or is it that technology use is itself a symptom? In the movie Alice is as addicted to her smartphone as anyone else. But she is increasingly dependent on its personal-organiser functions, and she Googles things on her phone that she should be able to remember without help. Are the earlier stages of her disease a parable for what we are all experiencing: a new kind of Googleheimer's?
- Does Alice's wealth make palliative care an awful lot easier than for others less well off? What is the reality for majority of Alzheimer patients?

Notes:

Finally – on a lighter note I would encourage you to watch Finding Nemo (again!). What can this film teach you about Biology?

Think about:

- Ocean environments and ecosystems
- Classification
- Adaptations
- Food chains and food webs
- Conservation and Endangered species
- How we affect the ocean? Pipelines?
- Sharks and shark attacks? Is it our fault for entering their environment?

There are many characters in the movie and all of them are different species. The ocean is incredibly diverse and much of it has yet to be explored. Please create a **mind map** on your ideas and any topics/issues that relate to the oceans. You can do this on a poster or in the area below or even on the back of this booklet.