



Sturminster Newton High School Sixth Form

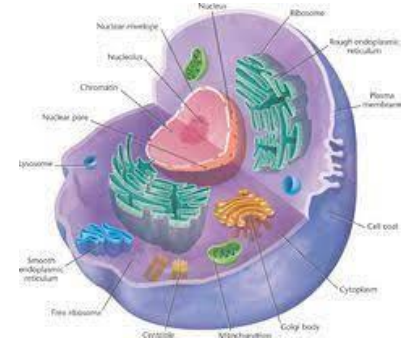
BIOLOGY Transition Project

Board: OCR

Type: GCE A Level

School: Sturminster Newton High School

Contact: Mrs K Thompson



PART 1: GCSE consolidation

During the first week of your A level Biology course you will sit a test containing questions taken from real A-Level papers that test your GCSE knowledge, How Science Works and Application skills. You do not need to have been taught any of the A-Level content to be able to complete these questions. To prepare for this test, you will need to revise the following topics/skills:

Topic	Approximate time to revise (hours)
Digestion	2
Osmosis	2
Gas exchange	1
Enzymes	2
Factors affecting rates of diffusion	1
Cells, tissues and organs	1
Transpiration	1

The aim of this test is to ensure that your GCSE Biology knowledge is at a level required to study A-Level Biology

What to hand in:

You can do your revision in any style (notes, powerpoint, cards etc) as long as the detail and evidence is there. Your GCSE revision guide will help but also the transition book 'Head Start to A level Biology' <https://www.amazon.co.uk/Head-Start-level-Biology-Level-ebook/dp/B00VE2NIOI>

Test Date: First week of A-Level Biology lessons, this **will not** take place in the first lesson after the summer holiday

PART 2

There are 3 main types of microscopes, optical microscopes, transmission electron microscopes and scanning electron microscopes. Produce a factsheet about microscopes that includes the following information for each type:

- Detailed information about how the microscope works
- Advantages of using each type of microscope
- Disadvantages of using each type of microscope

You will need to spend time researching microscopes using A-Level Internet sites and provide a list of 3 or more references at the end of your factsheet. If you include diagrams, please refer to them in your text.

If you still would like something to do:

A Suggested Reading List for A Level Biologists

Books

Research these online and select a few to read (* *highly recommended*)

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

Magazines, Newspapers and journals

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

HuffPost Science

Any scientific articles in newspapers (paper or online)

**** These titles will be available in the learning resource centre when we return***

Websites

- <http://www.ibiblio.org/virtualcell/index.htm> – An interactive cell biology site
- <http://www.accessexcellence.org/RC/VL/GG> – A web site showing illustrations of many processes of biotechnology
- <http://www.dnai.org/a/index.html> – Explore the genetic code
- <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