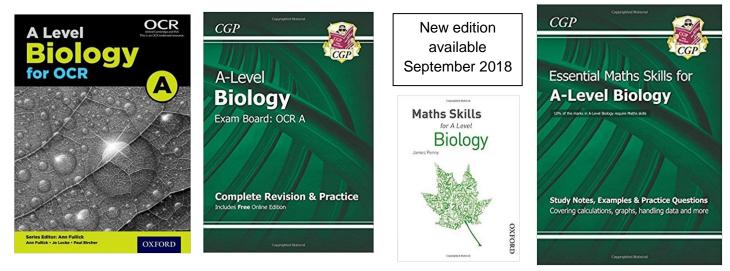
A Level Biology for QCR A

Course Requirements: You will need to purchase:

- Ring binder folder (you will need a minimum of 2)
- Plastic Wallets
- Pen, Pencil, Ruler etc
- A Scientific Calculator

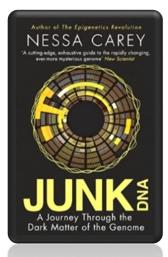


We recommend the following text book/revision guides to help with your study of this course:



This pack contains a programme of activities and resources to prepare you to start an A level in Biology in September. It is aimed to be used after you complete your GCSE, throughout the remainder of the summer term and over the Summer Holidays to ensure you are ready to start your course in September. Reading around the topic will help your understanding. Below are some suggested books – pick one (or more) and enjoy!

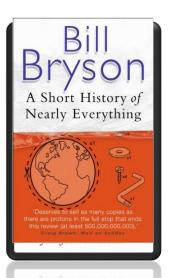
Book Recommendations

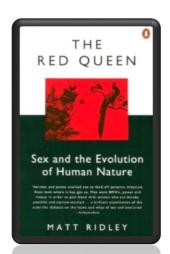


Junk DNA Our DNA is so much more complex than you probably realize, this book will really deepen your understanding of all the work you will do on Genetics. Available at amazon.co.uk

The Red Queen

It's all about sex. Or sexual selection at least. This book will really help your understanding of evolution and particularly the fascinating role of sex in evolution. Available at amazon.co.uk



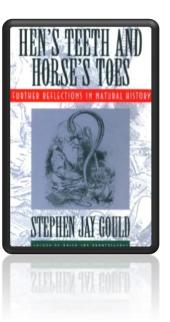


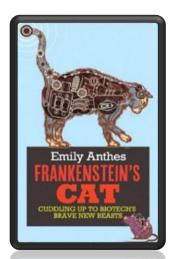
A Short History of Nearly Everything

A whistle-stop tour through many aspects of history from the Big Bang to now. This is a really accessible read that will re-familiarise you with common concepts and introduce you to some of the more colourful characters from the history of science! Available at amazon.co.uk

Studying Geography as well? Hen's teeth and horses toes

Stephen Jay Gould is a great Evolution writer and this book discusses lots of fascinating stories about Geology and evolution. Available at amazon.co.uk





An easy read.. **Frankenstein's cat** Discover how glow in the dark fish are made and more great Biotechnology breakthroughs. Available at amazon.co.uk

Movie Recommendations

A New Superweapon in the Fight Against Cancer

Available at :

http://www.ted.com/talks/paula_hammond_a_ new_superweapon_in_the_fight_against_can cer?language=en

Cancer is a very clever, adaptable disease. To defeat it, says medical researcher and educator Paula Hammond, we need a new and powerful mode of attack.









Why Bees are Disappearing Available at :

http://www.ted.com/talks/marla_spivak_why_b ees_are_disappearing?language=en Honeybees have thrived for 50 million years, each colony 40 to 50,000 individuals coordinated in amazing harmony. So why, seven years ago, did colonies start dying enmasse?

Why Doctors Don't Know About the Drugs They Prescribe Available at : <u>http://www.ted.com/talks/ben_goldacre_wh</u> <u>at_doctors_don_t_know_about_the_drugs_t</u> <u>hey_prescribe?language=en</u> When a new drug gets tested, the results of the trials should be published for the rest of

the trials should be published for the rest of the medical world — except much of the time, negative or inconclusive findings go unreported, leaving doctors and researchers in the dark.









Growing New Organs Available at :

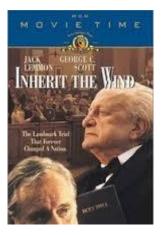
http://www.ted.com/talks/anthony_atala_growing_organs_engineering_tissue?language=en Anthony Atalla's state-of-the-art lab grows human organs — from muscles to blood vessels to bladders, and more.

Movie Recommendations

Everyone loves a good story and everyone loves some great science. Here are some of the picks of the best films based on real life scientists and discoveries. You won't find Jurassic Park on this list, we've looked back over the last 50 years to give you our top 5 films you might not have seen before. Great watching for a rainy day.



Inherit The Wind (1960) Great if you can find it. Based on a real life trial of a teacher accused of the crime of teaching Darwinian evolution in school in America. Does the debate rumble on today?





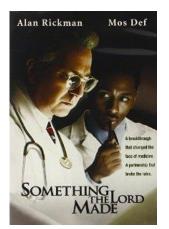
Andromeda Strain (1971) Science fiction by the great thriller writer Michael Cricthon (he of Jurassic Park fame). Humans begin dying when an alien microbe arrives on Earth.

Gorillas in the Mist (1988) An absolute classic that retells the true story of the life and work of Dian Fossey and her work studying and protecting mountain gorillas from poachers and habitat

loss. A tear jerker.



Lorenzo's Oil (1992) Based on a true story. A young child suffers from an autoimmune disease. The parents research and challenge doctors to develop a new cure for his disease.



Something the Lord Made (2004) Professor Snape (the late great Alan Rickman) in a very different role. The film tells the story of the scientists at the cutting edge of early heart surgery as well as issues surrounding racism at the time.

There are some great TV series and box sets available too, you might want to check out: Blue Planet, Planet Earth, The Ascent of Man, Catastrophe, Frozen Planet, Life Story, The Hunt and Monsoon.

Science on Social Media

Science communication is essential in the modern world and all the big scientific companies, researchers and institutions have their own social media accounts. Here are some of our top tips to keep up to date with developing news or interesting stories:

Follow on Twitter: Commander Chris Hadfield – former resident aboard the International Space Station @cmdrhadfield

Tiktaalik roseae – a 375 million year old fossil fish with its own Twitter account! @tiktaalikroseae

NASA's Voyager 2 – a satellite launched nearly 40 years ago that is now travelling beyond our Solar System @NSFVoyager2

Neil dGrasse Tyson – Director of the Hayden Planetarium in New York @neiltyson

Sci Curious – feed from writer and Bethany Brookshire tweeting about good, bad and weird neuroscience @scicurious

The SETI Institute – The Search for Extra Terrestrial Intelligence, be the first to know what they find! @setiinstitute

Carl Zimmer – Science writer Carl blogs about the life sciences @carlzimmer

Phil Plait – tweets about astronomy and bad science @badastronomer

Virginia Hughes – science journalist and blogger for National Geographic, keep up to date with neuroscience, genetics and behaviour @virginiahughes

Maryn McKenna – science journalist who writes about antibiotic resistance @marynmck

Find on Facebook:

Nature - the profile page for nature.com for news, features, research and events from Nature Publishing Group

Marin Conservation Institute – publishes the latest science to identify important marine ecosystems around the world.

National Geographic - since 1888, National Geographic has travelled the Earth, sharing its amazing stories in pictures and words.

Science News Magazine - Science covers important and emerging research in all fields of science.

BBC Science News - The latest BBC Science and Environment News: breaking news, analysis and debate on science and nature around the world.

