



BIOLOGY

Reading List





Middle School

Non-Fiction

Why don't Penguin's feet freeze?; Will we ever speak dolphin?; Does anything eat wasps? - New Scientist

A Short History of Nearly Everything – Bill Bryson. Fabulous introductions to fundamental ideas in science. Easy to read and funny at times.

Science Tales – Darryl Cunningham. Science myths and hoaxes explored and explained

Bad Science – Ben Goldacre. In this eye-opening book he takes on the MMR hoax and misleading cosmetics ads, acupuncture and homeopathy, vitamins and mankind's vexed relationship with all manner of 'toxins'. Along the way, the self-confessed 'Johnny Ball cum Witchfinder General' performs a successful detox on a Barbie doll, sees his dead cat become a certified nutritionist and probes the supposed medical qualifications of 'Dr' Gillian McKeith.

The Hot Zone – Richard Preston. Impossible to ignore, The Hot Zone is the terrifying, true-life account of when this highly infectious virus spread from the rainforests of Africa to the suburbs of Washington, D.C in 1989. A secret SWAT team of soldiers and scientists were quickly tasked with halting the outbreak. And they did. But now, that very same virus is back. And we could be just one wrong move away from a pandemic.

The Greatest Show on Earth – Richard Dawkins. In The Greatest Show on Earth Richard Dawkins takes on creationists, including followers of 'Intelligent Design' and all those who question the fact of evolution through natural selection. Like a detective arriving on the scene of a crime, he sifts through fascinating layers of scientific facts and disciplines to build a cast-iron case: from the living examples of natural selection in birds and insects; the 'time clocks' of trees and radioactive dating that calibrate a timescale for evolution; the fossil record and the traces of our earliest ancestors; to confirmation from molecular biology and genetics. All of this, and much more, bears witness to the truth of evolution.

Spillover – David Quammen. As globalization spreads and as we destroy the ancient ecosystems, we encounter strange and dangerous infections that originate in animals but that can be transmitted to humans. Diseases that were contained are being set free and the results are potentially catastrophic.

Life at the Extremes – Francis Ashcroft. How do people survive extremes of heat, cold, depth, speed and altitude? This book explores the limits of human survival and the physiological adaptations which enable us to exist under extreme conditions. In man's battle for survival in the harshest of environments, the knowledge imparted by physiology, the 'logic of life', is crucial.

Harvey's Heart – Andrew Gregory. The tale of William Harvey's momentous discovery - that the blood vessels form a closed system, carrying blood pumped rapidly around the body by the heart - is one of ingenuity, imagination and perseverance, and remarkable use of experiment, observation and skill.

The Domesticated Brain – Bruce Hood. Why do we care what others think? What keeps us bound together? How does the brain shape our behaviour? Bruce Hood is an award-winning psychologist who has researched and taught at Cambridge and Harvard Universities and is currently Director of the Cognitive Development Centre at the University of Bristol.

A Wild Life – Dick Pitman. Adventures of an accidental conservationist in Africa.



Audio-Visual

Podcasts that will teach you about the world in which you live!

Infinite Monkey cage – comedy panel podcast that looks at different topics of all the sciences

No Such Thing As A Fish – not strictly just science but a group of comedians discuss cool facts they have discovered that week

Inside Health – BBC Radio 4, really good for anyone interested in medicine

The Curious cases of Rutherford and Fry – an amusing podcast where 2 scientists answer listeners' questions

The Life Scientific – BBC Radio 4, profiling the most interesting scientists of our time

Sixth Form

- **A Short History of Nearly Everything** - Bill Bryson
- **Bad Science; Bad Pharma** - Ben Goldacre
- **Genome; Nature vs. Nurture** – Matt Ridley
- **The Selfish Gene; The Blind Watchmaker; The Greatest Show on Earth; River out of Eden** - Richard Dawkins
- **The Rise and Fall of the Third Chimpanzee** - Jared Diamond
- **The Doctrine of DNA** - R.C.Lewontin
- **Why don't penguins feet freeze?; Does anything eat wasps?; How to fossilise your hamster?; Do polar bears get lonely?** - 'New Scientist' publications
- **The Language of the Genes** - Steve Jones
- **Bully for Brontosaurus; Wonderful life; The Mismeasure of man** - Stephen Jay Gould
- **The Double Helix** – James Watson
- **Life on Earth; The Private Life of Plants** - David Attenborough
- **The Diversity of Life** - Ed.O.Wilson
- **In the Shadow of Man** - Jane Goodall
- **Naked Ape** - Desmond Morris
- **The Dark Lady of DNA** - Brenda Maddox
- **Run, Swim, Throw, Cheat: The Science behind Drugs in Sport** - Chris Cooper
- **The Man who mistook his wife for a hat; Awakenings** - Oliver Sacks
- **Harvey's Heart: The Discovery of Blood Circulation** - Andrew Gregor
- **Trilobite! Eyewitness to Evolution** - Richard Fortey
- **Life ascending, Power sex suicide** - Nick Lane
- **The Chimp Paradox** - Steve Peters

Audio-Visual

Podcasts – Radio 4

- Inside Science
- Inside Health
- The Infinite Monkey Cage
- Costing the Earth
- Farming Today
- The Life Scientific