

Did you know that Biology is one of the most rapidly developing fields of research?

- Cancer research is continually gathering new information on the role played by different biochemical processes in the development of different forms of cancer.
- Huge advances have been made in our understanding of gene activation and the effect on key physiological processes.
- The impact of epigenetics on our metabolic pathways and on the possibility of developing autoimmune conditions, as well as on our potential to exploit our brain capacity, is also an extremely exciting field of Biology.
- Developmental Biology is allowing us to gain a better understanding of cell differentiation and this has great implications in stem cell research.

Did you know that advances in Biology are being continually reported?

- *The Independent*, *The Guardian*, *The Times* —you should read a newspaper, or online newspaper, on a daily basis.
- **New Scientist** and **Scientific American** cover popular, general scientific issues.
- **Nature** and **Science** both offer a technical, in depth approach to new research.
- **Biological Sciences Review** is aimed at A Level Biology students. Articles are written by experts and relate to the specification in a clear and concise manner.

Did you know that as a developing scientist you should read your areas of interests at a greater depth?

Of course you do know this, so read on because this leaflet will help you to start exploring the fascinating world of the Biological Sciences.

- Anthropology, ethology, ecology, genetics, medicine and neuroscience...there are so many aspects to Biology and so many books to stimulate your interest.
- Stephen Jay Gould 's books of collected essays have become scientific classics.
- Christopher Lloyd (who visited HCS during Science week in 2012 and 2015) has written an excellent book on evolution —*What on Earth Evolved*.
- Finally, anyone who wants to be a biologist must have read Charles Darwin —*On the Origin of Species*.

Biology in general

Lori Johnson: Cell function and specialisation

S. Morgan: Cells and cell function

Simon Conway Morris: *Life's solution*

David Sadava et al. *Life: The Science of Biology*, (International Edition - Palgrave, 2010)

John Postgate: *Microbes and man*

David Bainbridge: *Teenagers: A Natural History*

Ecology

W. Dolder & B. D'Oliveira: *Endangered animals: Species facing extinction..habitats*

Michael Bright: *Changing ecosystems / The Diversity of the species*

T. Le Roy: *Galapagos*

R. L.. Spilsbury: *Earth's Resources*

J. M. Gillett: *Conservation areas*

S. Morgan: *Protecting threatened species*

E. McLeish: *Sustainable Homes*

Rachel Carson: *Silent Spring* (on bioaccumulation)

Anthropology

H. Adamson: *Charles Darwin and the theory of Evolution*

Murphy: *Evolution, nature and stuff*

T. Alice Roberts :*The incredible Human Journey / Evolution. The human story*

Donal Johanson: *Lucy: the beginning of Humankind*

Frans de Waal: *The bonobo and the atheist: in search of humanism among primates*

Chris Stringer: *The Origin of Our Species* (31 May 2012) / *Homo Britannicus*

Desmond Morris: *The naked ape: a zoologist study of the Human Animal*

Desmond Morris: *The Human Zoo*

Desmond Morris: *People Watching*

Olivier Sacks: *An Anthropologist on Mars*

Genetics and epigenetics

Tim Spector: *Identically different: why you can change your genes*

Nessa Carey: *The Epigenetics revolution*

Daniel M Davis: *The Compatibility Gene* (Allen Lane)

Paul Bloom: *Just Babies: the origin of good and evil*

Richard Francis: *Epigenetics*

R. Snedden: *Variation in Living things*

S. Morgan: *From Mendel's peas to genetic fingerprinting*

Rooney: *Medicine-Stem cells, genes and superbeams*

Genetics /evolution

Steven J Gould: 'Wonderful life', 'Panda's thumb', 'Bully for Brontosaurus',

Steven Jones: 'Darwin's Island', 'Y: the Descent of Man', 'Almost like a Whale'

Richard Dawkins: 'The Blind Watchmaker'; ' River out of Eden'; 'Climbing Mount Improbable';

The Selfish gene'

Animal Behaviour

Konrad Lorez (ethology): *King Solomon's Ring, On aggression.*

E O Wilson (sociobiology) 'Anthill', 'The Social conquest of Earth', 'Letters to a young scientist'.

Niko Tinbergen (ethology): *Curious Naturalists*

Justin Gregg: *Are dolphins really smart? : the mammal behind the myth*

Medicine/Dentistry

Ben Goldacre: *'Bad Science'* and *'Bad Pharma'*

Peter Pringle: *Experiment Eleven* (on the discovery of streptomycin)

Sue Armstrong : p53: *The Gene that Cracked the Cancer Code* (2014)

Nick Lane: *Power, sex, Suicide: Mitochondria and the meaning of life*

George Johnson: *The Cancer Chronicles* (Bodley Head)

Tak W Mak, Mary Saunders and Bradley Jett: *Primer to the Immune Response* (Elsevier)

Adrian Blundell et al: *The Essential Guide to Becoming a Doctor* (Wiley-Blackwell, 2010)

Mark Bear, Barry Connors and Michael Paradiso: *Neuroscience: Exploring the Brain*. (Lippincott Williams and Wilkins, 2006)

Gerald Tortora and Bryan Derrickson: *Principles of Anatomy and Physiology* (Wiley, 2011)

Humphrey Rang, Maureen Dale et al: *Pharmacology* (Churchill Livingstone, 2011)

Frank Netter, Saunders: *Atlas of Human Anatomy* (2010)

Marsh, Henry: *Do No Harm: Stories of Life, Death and Brain Surgery* (2014)

Disease and Pathology

A. Allen: *Vaccine*

Carol Ballard: *From Cowpox to antibiotics*

Mary J Dobson: *Diease: The extraordinary stories behind history's deadliest killers*

Michael Burgan: *Developing flu vaccines*

Guy De La Bed'doye re: *The first polio vaccine*

Sally Morgan: *Fighting infectious disease*

John FARndon: *From laughing gas to face transplants*

J.M. Hightower: *Diagnosis: Mercury: Money, politics and poison*

Peter Pringle: *Experiment eleven:...discovery of the cure for tuberculosis*

R. Sneddeen: *The benefits of bacteria*

Neuroscience

Vilayanur Ramachandran (neuroscience): *'Phantoms in the Brain: human nature and the architecture of the mind'*

Bruce Hood (neurology/psychology): *'The self-illusion: why there is no You inside your Brain', The Domesticated Brain*

Oliver Sacks: *'Musicophilia: tales of music and the brain' 'The man who mistook his wife for a hat', 'The Mind's Eye'*

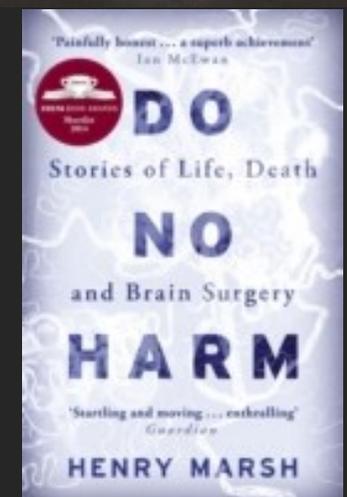
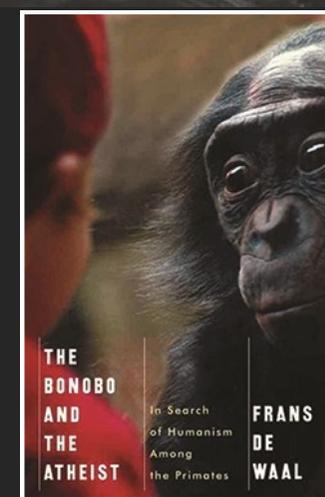
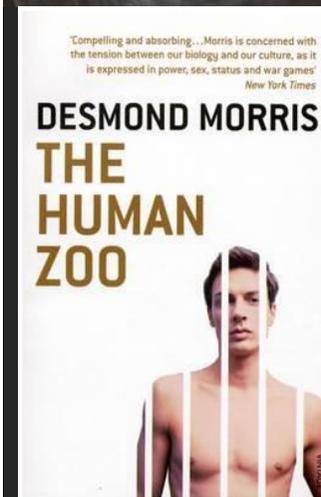
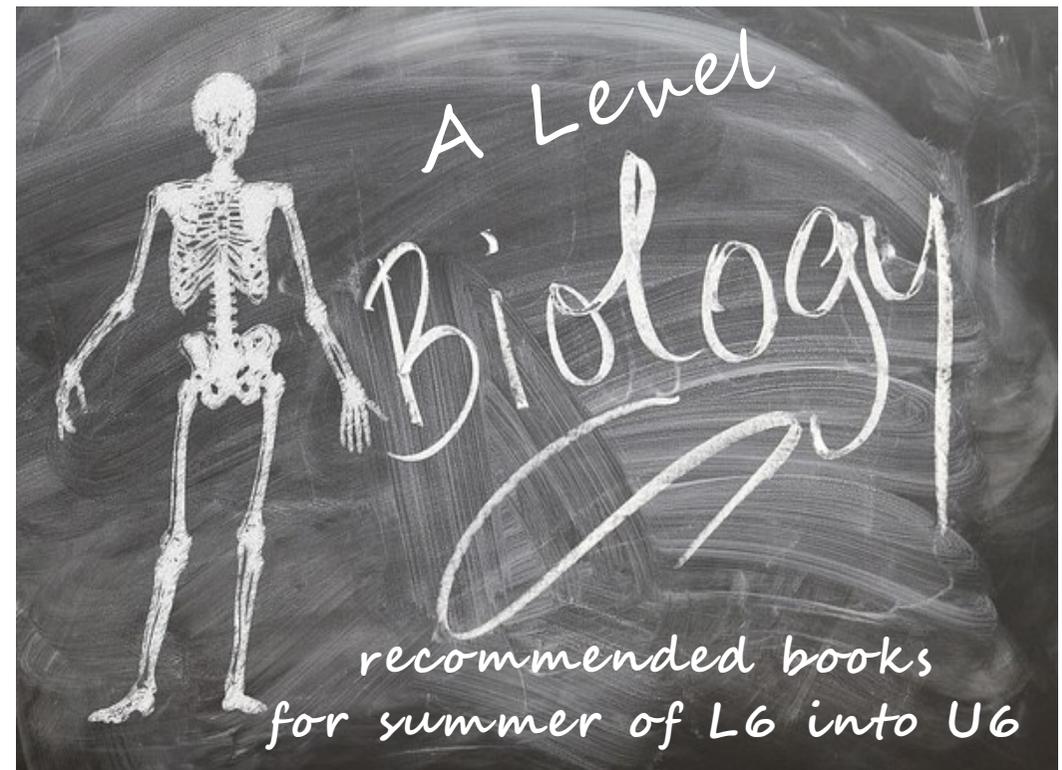
Elizabeth Svoboda (neurology/psychology): *'What makes a hero: the surprising science of selflessness'*

Henry Marsh: *Do No Harm: Stories of Life, Death and Brain Surgery* (2014)

Michael Graziano: *Consciousness and the social brain*

 (e-book available through Oliver)

www.societyofbiology.org offers a wide range of news and events (both national and regional) with a specific link for students. Enter some of the excellent competitions, and take part in a variety of biology based initiatives (www.societyofbiology.org/students) Also has information about grants.



Most of these items are available through our system—just ask!
(Also available from all good libraries.)

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