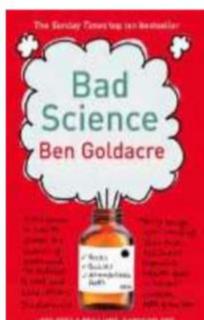


Transition to Applied Science – Background Work

Suggested reading

Lots of these books you can get second hand from ebay, World of Books and other sites.

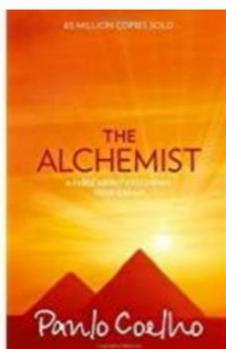
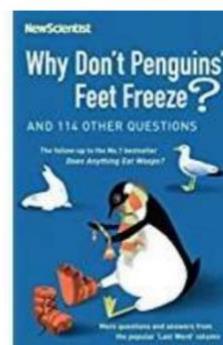


By Ben Goldacre

<http://bit.ly/pixlchembook3>

Here Ben Goldacre takes apart anyone who published bad or misleading science. This book will make you think about everything the advertising industry tries to sell you by making it sound 'sciency'.

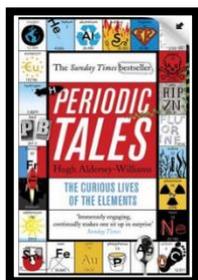
By New Scientist
Why Don't Penguins' Feet Freeze? is the latest compilation of readers' answers to the questions in the 'Last Word' column of *New Scientist*, the world's best-selling science weekly.



By Paulo Coelho

Santiago, a young shepherd living in the hills of Andalusia, feels that there is more to life than his humble home and his flock. One day he finds the courage to follow his dreams into distant lands, each step galvanised by the knowledge that he is following the right path: his own. The people he meets along the way, the things he sees and the wisdom he learns are life-changing. With Paulo Coelho's visionary blend of spirituality, magical realism and folklore, *The Alchemist* is a story with the power to inspire nations and change'

Periodic Tales: The Curious Lives of the Elements (Paperback) Hugh Aldersey-Williams



ISBN-10: 0141041455

<http://bit.ly/pixlchembook1> - gives you more detail. This book covers the chemical elements, where they come from and how they are used. There are loads of fascinating insights into uses for chemicals you would have never even thought about.

Suggested viewing

Science Fictions Films

1. Moon (2009)
2. Gravity (2013)
3. Interstellar (2014)
4. The Imitation Game (2015)
5. The Prestige (2006)

Online Clips / Series

Minute Physics – Variety of Physics questions explained simply (in felt tip) in a couple of minutes. Addictive viewing that will have you watching clip after clip – a particular favourite is “Why is the Sky Dark at Night?”

<https://www.youtube.com/user/minutephysics>

Rough science – the Open University – 34 episodes available

Real scientists are ‘stranded’ on an island and are given scientific problems to solve using only what they can find on the island. Great fun if you like to see how science is used in solving problems.

There are six series in total:

<http://bit.ly/pixlchemvid1a>

http://www.dailymotion.com/playlist/x2igjq_Rough-Science_rough-science-full-series/1#video=xxw6pr

or

<http://bit.ly/pixlchemvid1b>

<https://www.youtube.com/watch?v=IUoDWAt259I>

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...

Research activities

The Big Picture is an excellent publication from the Wellcome Trust. Along with the magazine, the company produces posters, videos and other resources aimed at students studying for GCSEs and A level.

For each of the following topics, you are going to use the resources to produce one page of Cornell style notes.

Use the links or scan the QR code to take you to the resources.

BigPicture



Topic 1: The Cell

Available at: <http://bigpictureeducation.com/cell>

The cell is the building block of life. Each of us starts from a single cell, a zygote, and grows into a complex organism made of trillions of cells. In this issue, we explore what we know – and what we don't yet know – about the cells that are the basis of us all and how they reproduce, grow, move, communicate and die.



<http://bigpictureeducation.com/cell>

Genetics:

Learn genetics from Utah University – lots of interactive resources to explore, everything from why some people can taste bitter berries to how we clone mice or make glow in the dark jelly fish.

<http://learn.genetics.utah.edu>

Conservation:

ZSL – many zoos have great websites, especially London Zoo. Read about some of the case studies on conservation such as the Giant Pangolin.

<https://www.zsl.org/conservation> <http://sciencecourseware.org/vcise/drosophila/>

DNA:

Interactive animations that look at the full story from discovery of DNA to some more advanced concepts.

<http://www.dnafb.org/>

More general science:

The '[Science News](#)' YouTube channel and the '[Science News for Students](#)' site have some awesome science content to help you think about some of the biggest questions in science.....

[TED Talks](#) is a brilliant source of short presentations and clips; many of which link very well to science courses; some of the best are linked below... and are well worth a watch!

- [TED Talks: The Science of Happiness](#)
- [TED Talks: Are athletes really getting faster, better, stronger?](#)
- [TED Talks: The Science of Surfing](#)