

Culture Vulture Recommendations

Film and Video

The Magic of Chemistry - with Andrew Szydlo

<https://www.youtube.com/watch?v=0g8lANs6zpQ>

Videos on a variety of subjects from the Royal Institution can be found here:

<https://www.youtube.com/user/TheRoyalInstitution/videos>

News and articles about Science

Institute of Physics

<http://www.iop.org/#gref>

Institute of physics magazine

Physics World

<https://physicsworld.com>

Royal Society of Chemistry

Chemistry review

<https://edu.rsc.org/student>

Royal Society of Biology

Biological sciences review

<https://www.rsb.org.uk/>

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Open University: Free online introductory Science courses

There are several courses relevant to Applied Science, below are just a few

Discovering Chemistry (24 hours study)



<https://www.open.edu/openlearn/science-maths-technology/chemistry/discovering-chemistry/content-section-overview>



Basic Science: Understanding Experiments: (12 hours study)

<https://www.open.edu/openlearn/science-maths-technology/basic-science-understanding-experiments/content-section-overview>
<https://www.open.edu/openlearn/science-maths-technology/basic-science-understanding-experiments/content-section-overview>

What are waves? (3 hours study)



<https://www.open.edu/openlearn/science-maths-technology/what-are-waves/content-section-0?active-tab=description-tab>

Infection and immunity (12 hours study)

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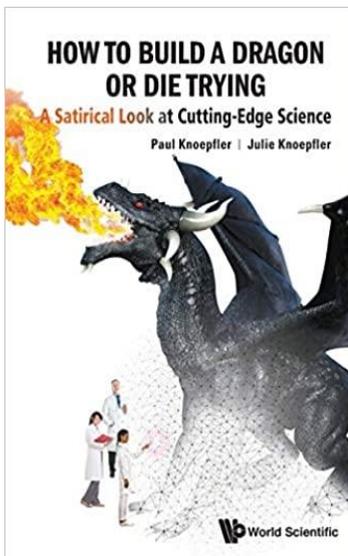
<https://www.open.edu/openlearn/health-sports-psychology/infection-and-immunity/content-section-overview?active-tab=description-tab>

Basic science: understanding numbers (12 hours study)



<https://www.open.edu/openlearn/science-maths-technology/basic-science-understanding-numbers/content-section-overview?active-tab=description-tab>

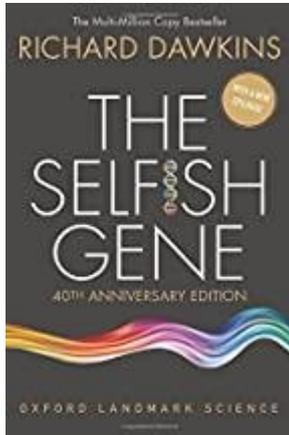
Reading: These books are all about widening your knowledge and understanding of Scientific concepts and procedures



https://www.amazon.co.uk/How-Build-Dragon-Die-Trying/dp/9813275936/ref=tmm_pap_swatch_0?encoding=UTF8&qid=1588858606&sr=1-9-spons

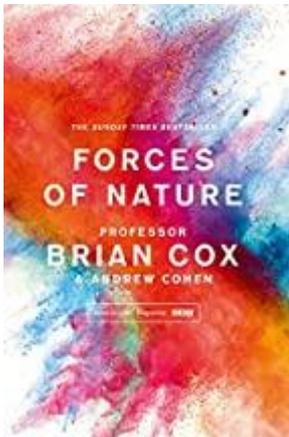
This new book discusses using powerful technologies such as CRISPR gene editing, stem cells, and bioengineering to make real dragons. It also goes through what useful information we can learn from animals such as Pteranodons and amazing present-day creatures in our quest to build actual dragons. The book goes on to discuss the possibility of building other mythical creatures such as unicorns and mermaids. Overall, *How to Build A Dragon* is also meant as a satirical look at cutting-edge science, and it pokes fun at science hype. Anyone who is interested in dragons or cutting-edge science will enjoy this book! It is written in a humorous, approachable way making science fun and easy to understand.

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https://www.amazon.co.uk/Selfish-Genes-Anniversary-Landmark-Science/dp/0198788606/ref=sr_1_1?dchild=1&keywords=selfish+gene&qid=1588859576&s=books&sr=1-1

The Selfish Gene has become a classic exposition of evolutionary thought. Professor Dawkins articulates a gene's eye view of evolution - a view giving centre stage to these persistent units of information, and in which organisms can be seen as vehicles for their replication. This imaginative, powerful, and stylistically brilliant work not only brought the insights of Neo-Darwinism to a wide audience, but galvanized the biology community, generating much debate and stimulating whole new areas of research.

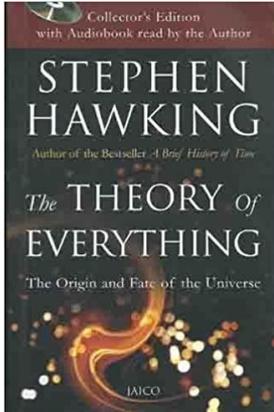


https://www.amazon.co.uk/Forces-Nature-Professor-Brian-Cox/dp/0008210039/ref=sr_1_19?dchild=1&keywords=science+books+for+adults&qid=1589202620&sr=8-19

Forces of Nature takes you from the mid-Atlantic ridge in Iceland, the volcanoes of Indonesia and the precipitous cliffs in Nepal, to the manatees off the coast of Florida and the northern lights of the Arctic, in search of the fundamental laws that govern our world.

These universal laws shape everything, from the structure of snowflakes to the elegant spirals of the galaxies. By seeking to understand the everyday world – the colours, structure, behaviour and history of our home – we can step beyond the everyday and approach the Universe beyond.

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https://www.amazon.co.uk/Theory-Everything-Origin-Fate-Universe/dp/8179927938/ref=sr_1_28?dchild=1&keywords=scientific+books&qid=1589201987&sr=8-28

The theory of Everything: Stephen W.Hawking tries to give an outline of what we think is the history of the universe from the big bang to black holes. The first lecture briefly reviews past ideas about universe and how we got to our present picture. One might call this the history of the universe. The second lecture describes how both Newton's and Einstein's theories of gravity led to the conclusion that the universe could not be static: it had to be either expanding or contracting. This, in turn, implied that there must have been a time between ten and twenty billion years ago when the density of the universe was infinite. This is called the big bang. It would have been the beginning of the universe.....

Preparing for BTEC Science

A free on-line course to prepare you for one of the first topics in BTEC Science

<https://app.senecalearning.com/classroom/course/c02d7745-273e-45a9-a800-2b0239c0fb6c/section/b0fcef5a-58a9-42e7-91c9-b29d68190dc3/session>

MOOCS

These are Massive Open Online Courses (MOOC) is an interactive step-by-step that run for 6-8 weeks course aimed at reaching an unlimited number of participants worldwide to create a community of lifelong learners. There are many different MOOC providers that cover a huge variety of different subjects and topics. Typically, a MOOC will involve 2-3 hours of study per week for 6 weeks or so. MOOCs are free of charge. All the course materials will be provided for you online, and are also 100% free! Each course is open to anyone with internet access across the world and all you need is your wonderful brain! Here are a few Biology MOOCs you might wish to try:



The basics of molecular Biology, how the body uses DNA as a blueprint

<https://www.futurelearn.com/courses/the-body-and-dna>

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What is the body, the structures and functions of the body

<https://www.futurelearn.com/courses/what-is-the-body>



Bacterial Genomes: Accessing and Analysing Microbial Genome Data

Learn more about how genomic data and computational tools can help us understand and track disease-causing bacteria.

<https://www.futurelearn.com/courses/bacterial-genomes-access-and-analysis>

Podcasts: *We are sure if you go on BBC podcasts and type 'Chemistry' into the search box you will find many interesting podcasts. Here are a few of our favourites!*

BBC – The infinite monkey cage with Brian Cox and Robin Ince: This is where comedy meets science. Although many of us link Brian Cox with Physics and you will find many of these podcasts to contain discussions about space and other physics related topics. There are general science episodes such as 'The science of laughter', biology related ones such as 'are humans still evolving?' but also chemistry related ones including 'The anniversary of the periodic table'.

<https://www.bbc.co.uk/programmes/b00snr0w/episodes/downloads>

BBC – Science stories: Surprising stories from the history of science told by Naomi Alderman and Philip Ball. <https://www.bbc.co.uk/programmes/m000g6d0>

BBC – In their element: Scientists tell the stories of different elements, explaining why these well-known substances matter for chemistry and also for the development of modern civilisation.

<https://www.bbc.co.uk/programmes/b08p6q4r>

BBC – Costing the Earth: Climate change is a big area of study within the Chemical sciences particularly how we can measure its impact and what we can do to combat it. A weekly podcast discussing one topic a week that will definitely get you thinking.

<https://www.bbc.co.uk/programmes/b006r4wn/episodes/downloads>,

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Websites:

The Naked Scientists <https://www.thenakedscientists.com/>

Contains podcasts, articles, latest sciences news and even a science pub quiz!

Catalyst <https://www.stem.org.uk/resources/collection/3137/catalyst>

Catalyst is a topical magazine that offers features on a wide range of themes from the science curriculum bringing them to life with insights into cutting-edge research and practical applications of complex science in the world around us. Catalyst magazine is aimed mainly at science students aged 14-19.