

applied science

BTEC Preparation Pack



STEP UP TO
SIXTH FORM

What is Science?



https://www.youtube.com/watch?v=hDQ8ggroeE4&feature=emb_err_watch_on_yt

Why choose Applied Science? <https://www.youtube.com/watch?v=Kr6T1ylZxok>

Online Courses



These lessons cover some of the content you will have studied at GCSE. Look at “Human circulatory system”, “Introduction to the Periodic Table” and “Wave structure and properties”

<https://www.stem.org.uk/remote-lessons/key-stage-4>

A free online science course about the human body and how it works. <https://www.futurelearn.com/courses/what-is-the-body>

Take a Tour of the Cell in this online course from the Open University

<https://www.open.edu/openlearn/science-maths-technology/science/tour-the-cell/content-section-0>

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

Discovering Chemistry <https://www.open.edu/openlearn/science-maths-technology/chemistry/discovering-chemistry/content-section-overview?active-tab=description-tab>

Activities



A useful interactive periodic table: <https://www.rsc.org/periodic-table>

STEM.org.uk provide a range of science activities you can try: <https://www.stem.org.uk/resources/elibrary/resource/33207/life-freezer-suitable-home-teaching>

More activities can be found here: <https://www.stem.org.uk/resources/collection/3999/chemistry-activities>

Videos



Eden TV

- You can find out why an elephant has a trunk <https://eden.uktv.co.uk/blog/article/why-do-elephants-have-trunk/> Or why a paper cut is so painful <https://eden.uktv.co.uk/blog/article/why-do-paper-cuts-hurt-so-much/>

New Scientist Live - Each week, there are three talks available for free – one talk aimed at school students, one for families and one by a

world-leading scientist or author.

- <https://www.youtube.com/newscientist>

Homeostasis and glucose: a short you tube clip about regulation of blood glucose

- <https://www.youtube.com/watch?v=X9ivR4y03DE>
- Professor Dave explains how to carry out titrations <https://www.youtube.com/watch?v=dLNsPqDGzms>

Suggested Reading & Podcasts



Radio

BBC Sounds Radio 4 Frontiers- In the first episode, Geoff Watts visits the Human Microbiome Project in the US where they're studying the genetics of bacteria which live on the human body

- <https://www.bbc.co.uk/sounds/play/b011jv8r>

Podcasts

A complete set of podcasts exploring all the elements in turn.

- <https://www.chemistryworld.com/1925.more?navcode=268>

A free series of podcasts based on the periodic table produced by the BBC:

- <https://www.bbc.co.uk/programmes/p01rcrn6>

The Infinite Monkey Cage featuring Brian Cox on BBC Radio 4. Look out for the Anniversary of the Periodic Table, Clever Creatures, Microbes: Secret Rulers of the World? and The Science of Everyday Life

- <https://www.bbc.co.uk/programmes/b00snr0w/episodes/player?page=2>

Suggested reading

An article on using a colorimeter to find the concentration of a solution

- https://www.ehow.co.uk/how_5256752_use-colorimeters.html

An article on Homeostasis and the control of blood glucose in the body

- https://www.stem.org.uk/system/files/elibrary-resources/legacy_files/migrated/17466-catalyst_14_3_192_edited.pdf

TV & Film



- **Ted Talks - Just how small is an atom?** https://www.ted.com/talks/jon_bergmann_just_how_small_is_an_atom
- **Ted Talks - How big is a mole?** https://www.ted.com/talks/daniel_dulek_how_big_is_a_mole_not_the_animal_the_other_one
- **Planet Earth – Sir David Attenborough** (BBC iPlayer) <https://www.bbc.co.uk/programmes/b006mywy>
- **Our Planet – Sir David Attenborough** (Netflix) <https://www.netflix.com/gb/title/80049832>

Course Specifications



Extended Certificate - [Download Pearson Applied Science Specification](#)

Diploma - [Download Pearson Applied Science Specification](#)