**Science Year 8**

Biology – Respiration, Chemistry – Extracting Metals and Physics – Waves and Sound

**Biology**

**Respiration and gas exchange**

What is photosynthesis?

<https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/zn4sv9q>

What is the structure of a leaf?

<https://www.bbc.co.uk/bitesize/topics/znyycdm/articles/z6btng8>

How to measure photosynthesis

<https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/z9wwsrd>

A simple, step-by-step, visual guide showing you how to measure photosynthesis.

What is aerobic respiration?

<https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/zth9ng8>

How to measure your lung capacity

<https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/zm3xh39>

What is anaerobic respiration?

<https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/zcsbmsg>

What is lactic acid?

<https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/ztdmrwx>

Respiration revise

<https://www.bbc.co.uk/bitesize/guides/zq349j6/revision/1>

Test

<https://www.bbc.co.uk/bitesize/guides/zq349j6/test>

Photosynthesis revise

<https://www.bbc.co.uk/bitesize/guides/zpwmxnb/revision/1>

Test

<https://www.bbc.co.uk/bitesize/guides/zpwmxnb/test>

Respiration and gas exchange class clips

<https://www.bbc.co.uk/bitesize/topics/zvrrd2p/resources/1>

Breathing and circulation

<https://www.bbc.co.uk/bitesize/clips/z79n34j>

Ciliated epithelial cells

<https://www.bbc.co.uk/bitesize/clips/zywc87h>

Heart and lung transplant

<https://www.bbc.co.uk/bitesize/clips/zpkb4wx>

Plants and photosynthesis

<https://www.bbc.co.uk/bitesize/clips/z8vmrdm>

Categories: Factual: Science & Nature: Science & Technology

**School Library - Biology Books**

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| **Barcode** | **Class** | **Author** | **Title** | **Media** | **URL** |
| 14612 | 591.472 | Weber, Belinda | Animal Disguises | Paperback |   |
| 18366 | 591.472 | Weber, Belinda | Animal Disguises | Paperback |   |
| 12589 | 591.4 | Burnie,David | Animal Reproduction | Hardback |   |
| 18967 | 590 | Gray, Leon | Animals | Paperback |   |
| 14611 | 599.8 | Taylor, Barbara | Apes and Monkeys | Paperback |   |
| 18372 | 599.8 | Taylor, Barbara | Apes and Monkeys | Paperback |   |
| 18871 | 570 | Fullick, Ann | AQA GCSE Biology | Paperback |   |
|   |   |   | BBC Education AS-Level Guru | Website | http://www.bbc.co.uk/asguru |
| 14834 | 371.26 | James Mary | Biology | Paperback |   |
| 12549 | 371.26 | James Mary | Biology | Paperback |   |
|   |   |   | Biozone International | Website | http://www.biozone.co.uk |
| 15343 | 574 |   | Bloody Bones and Body Bits | Paperback | http:// |
| 5179 | 500 | Chisholm, Jane | Book of Science | Hardback |   |
| 18781 | 598 | Thomas, Isabel | Brilliant Birds | Paperback |   |
| 3059 | 574.03 | Gutteridge, A C | Cambridge Illustrated Thesaurus of Biology | Hardback |   |
| 14844 | 636 | Ogle, Belinda | Cockatiels | Paperback |   |
| 18783 | 595.7 | Thomas, Isabel | Crazy Creepy Crawlies | Paperback |   |
| 3054 | 574 | Stockley, C | Dictionary of Biology | Paperback |   |
| 14316 | 636.93 | Day, Trevor | Extreme Science: Pets Parents Hate: Animal Life Cycles | Paperback |   |
| 18784 | 597 | Thomas, Isabel | Fantastic Fish | Paperback |   |
| 2536 | 338 | Millerchip, D | Food Resources of Man, The | Paperback |   |
| 12546 | 371.26 | Parsons Richard | G.C.S.E.Double Science,Biology | Paperback |   |
| 18881 | 570 | CGP Books | GCSE Biology AQA Revision Guide (with Online Edition) | Paperback |   |
| 2974 | 574 | Barker, M | GCSE. Biology | Paperback |   |
| 2975 | 574 | Barker, M | GCSE. Biology | Paperback |   |
| 14622 | 572.86 | Walker, Richard | Genes and DNA | Paperback |   |
| 9957 | 582.16 | Harding,Patrick | How to Identify Trees | Paperback |   |
| 13291 | 612 | Various | Human Biology | Paperback |   |
| 19087 |   | Farndon, John | Human Body Poster Book: Ultimate Guide to How the Body Works | Spiral bound |   |
| 14272 | 592 | Cheshire, Gerard | Jellyfish | Paperback |   |
| 10817 | 590 | Smith,Miranda | Living Earth | Hardback |   |
| 9016 | 574 | Fowke, B | Living Things | Paperback |   |
| 15354 | 574 | Arnold, Nick | Microscopic Monsters | Paperback | http:// |
| 15346 | 574 | Arnold,Nick | Nasty Nature | Paperback | http:// |
| 10310 | 591 | Arnold,Nick | Nasty Nature | Paperback |   |
| 18884 | 570.76 | Ryan, Lawrie | New AQA GCSE Biology Revision Guide | Paperback |   |
| 19735 |   | ,  | New Grade 9-1 GCSE Biology for AQA: Student Book with Interactive Online Edition | Paperback |   |
| 15957 | 570.76 | ,  | New Grade 9-1 GCSE Biology: AQA Exam Practice Workbook (with Answers) | Paperback |   |
| 14891 | 636 | Heathcote, Peter | Salamanders | Paperback |   |
| 15225 | 612 |   | The Human Body |  Hard back |   |
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**Chemistry**

Extracting Metals

Galvanising iron and steel to prevent corrosion

<https://www.bbc.co.uk/bitesize/topics/zr3g87h/resources/1>

Properties and uses of gold

<https://www.bbc.co.uk/bitesize/clips/z98fgk7>

Recycling of Metals

<https://search.credoreference.com/content/entry/estenergy/recycling_of_metals/0>

Aluminium extraction

<https://search.credoreference.com/content/entry/heliconhe/aluminium_extraction/0>

Bitesize

Metals

Materials class clips

<https://www.bbc.co.uk/bitesize/topics/zgvbkqt/resources/1>

<https://www.bbc.co.uk/bitesize/topics/zgvbkqt>

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| **Barcode** | **Class** | **Author** | **Title** | **Media** | **URL** |
| 4632 | 540 | Walters, D | Chemistry | Hardback |   |
| 6065 | 540 | Newmark, A | Chemistry | Hardback |   |
| 11179 | 371.26 | Russell Brian | Essentials of GCSE D.T. Resistant Materials | Paperback |   |
| 11180 | 371.26 | Russell Brian | Essentials of GCSE D.T. Resistant Materials | Paperback |   |
| 3273 | 669.772 | Dineen, J | Focus on Aluminium | Hardback |   |
| 7346 | 781.64 | Brunning, B | Heavy Metal | Hardback |   |
| 4220 | 672 | Saville, J P | Iron and Steel | Hardback |   |
| 2560 | 338 | Kerrod, R | Manufacturing Industry | Hardback |   |
| 6068 | 539 | Cooper, C | Matter | Hardback |   |
| 2893 | 549 | Kerrod, R | Metals | Hardback |   |
| 3333 | 669 | Whyman, K | Metals and Alloys | Hardback |   |
| 10315 | 669 | Scott,P | Metalworking | Hardback |   |
| 3305 | 684 | Punter, I | Projects and Design In Metalwork | Hardback |   |
| 2911 | 552 | Symes, R F | Rock and Mineral | Hardback |   |
| 2909 | 552 | Symes, R F | Rock and Mineral | Hardback |   |
| 16603 | 530 |   | Why Do Liquids Change To Gas? | Book |  |

**Physics**

**Waves and Sound**

BBC Bitesize

Waves

<https://www.bbc.co.uk/bitesize/topics/zw982hv>

What are sound waves?

<https://www.bbc.co.uk/bitesize/topics/zw982hv/articles/z8mmb82>

Waves class clips - videos

Analogue and digital signals

<https://www.bbc.co.uk/bitesize/clips/zs68sg8>

Conduction, convection and radiation

<https://www.bbc.co.uk/bitesize/clips/zsqb9j6>

Nanotechnology used in sunscreen manufacture

Nanotechnology and its use in sunscreen manufacture to reflect UV rays from the sun.

<https://www.bbc.co.uk/bitesize/clips/zt3mrdm>

The albedo effect

Iain Stewart explains how the albedo effect works.

<https://www.bbc.co.uk/bitesize/clips/zk6kq6f>

The effects of UV light on our skin

An introduction to UV light and the carcinogenic effects it has on skin.

<https://www.bbc.co.uk/bitesize/clips/zksjxnb>

The electromagnetic spectrum

The seven different types of waves that form the electromagnetic spectrum are introduced.

<https://www.bbc.co.uk/bitesize/clips/z6x4wmn>

Uses of electromagnetic waves

<https://www.bbc.co.uk/bitesize/clips/zfsjxnb>

Waves - reflection, refraction and diffraction

<https://www.bbc.co.uk/bitesize/clips/z7qb9j6>

**Lancashire Digital Library**

WHAT IS SOUND?

<https://search.credoreference.com/content/entry/viphaphys/what_is_sound/0>

Sound

<https://search.credoreference.com/content/entry/acbwordorig/sound/0>

Sound Waves

<https://search.credoreference.com/content/entry/careerpphysi/lesson_8_3_sound_waves/0>

How to measure the speed of sound

<https://www.bbc.co.uk/bitesize/topics/zw982hv/articles/z998srd>

How to play a record with a £5 note

<https://www.bbc.co.uk/bitesize/topics/zw982hv/articles/zwpmgdm>

How to make a loudspeaker

<https://www.bbc.co.uk/bitesize/topics/zw982hv/articles/zg8rxfr>

'Sonic boom' in Dorset blamed on 'fireball meteor'

<https://www.bbc.co.uk/news/uk-england-56475333>

**School Library Science Books**

**Physics**

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| **Barcode** | **Class** | **Author** | **Title** | **Media** | **URL** |
| 11895 | 920 | Mayes Frances | Albert Einstein - Spilling the Beans on | Paperback |   |
|   |   |   | Amusement Park Physics | Website | http://www.learner.org/exhibits |
| 5179 | 500 | Chisholm, Jane | Book of Science | Hardback |   |
| 19141 | 530.092 | Saunders, Etta | Brian Cox | Hardback |   |
| 7470 | 500 | Hawking, Steven | Brief History of Time, A | Paperback |   |
| 9075 | 920 | Strathern, P | Curie & Radioactivity | Paperback |   |
| 2839 | 530 | Oxlade, C | Dictionary of Physics | Hardback |   |
| 2886 | 531 | Ardley, N | Force and Strength | Hardback |   |
| 13094 | 530 | Variuos | Forces and Movement | Paperback |   |
| 18872 | 530.076 | CGP Books | GCSE Core and Additional Physics Essential Formula Practice | Paperback |   |
| 18877 | 530 | CGP Books | GCSE Physics AQA Revision Guide (with Online Edition) | Paperback |   |
| 15575 | 530 | CGP Books | GCSE Physics AQA Revision Guide (with Online Edition) | Paperback |   |
|   |   |   | GCSE Revision | Website | http://www.gcse.com |
| 2867 | 530 Ref | Detheridge, M V Nelkon, M | GCSE. Physics | Paperback |   |
| 2859 | 530.76 | Maunder, C | GCSE. Physics | Paperback |   |
| 13269 | 530 | Various | Light and Energy | Paperback |   |
| 5059 | 530 | Taylor, L J | Looking Into Materials | Paperback |   |
| 12557 | 371.26 | Parsons Richard | Neab Physical Processes | Paperback |   |
| 18878 | 530 | Ryan, Lawrie | New AQA GCSE Physics | Paperback |   |
| 18882 | 530.076 | Ryan, Lawrie | New AQA GCSE Physics Revision Guide | Paperback |   |
| 19734 |   | ,  | New Grade 9-1 GCSE Physics for AQA: Student Book with Interactive Online Edition | Paperback |   |
| 15948 | 530.76 | ,  | New Grade 9-1 GCSE Physics: AQA Exam Practice Workbook | Paperback |   |
| 12558 | 371.26 | James Mary | Physics | Paperback |   |
| 12548 | 371.26 | Booth Graham | Physics | Paperback |   |
| 4631 | 530 | Henbest, N Couper, H | Physics | Hardback |   |
| 15353 | 530 | Arnold, Nick | Shocking Electricity | Paperback | http:// |
| 11462 | 523 | Cheshire, Gerard | Solar System and Beyond, The | Paperback |   |
| 7536 | 534 | Arnold, N | Sounds Dreadful | Paperback |   |
| 16603 | 530 |   | Why Do Liquids Change To Gas? | Book |  |

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| **Barcode** | **Class** | **Author** | **Title** | **Media** | **URL** |
| 18930 | 523.1 | Gallagher, Belinda | 100 Facts Space | Paperback |   |
| 14735 | 500 |   | 100 Things to Know About Science | Hardback |   |
| 14339 | 550 | Riley, Peter | 100 Things You Should Know About Planet Earth | Paperback |   |
| 14336 | 500 | Parker, Steve | 100 Things You Should Know About Science | Paperback |   |
| 16844 | 523 | Becklake, Sue | 100 Things You Should Know About Space | Paperback |   |
| 19010 | Fiction | Morgan, Kass | 100, The | Paperback |   |
| 2807 | 507.6 | Ford, B J | 101 More Questions About Science | Hardback |   |
| 2876 | 507.6 | Ford, B J | 101 Questions About Science | Hardback |   |
| 3835 | 941.08 | Fyson, N L | 1940's, The | Hardback |   |
| 3834 | 941.08 | Campling, E | 1970's, The | Hardback |   |
| 9202 | 533 | Devonshire, H | Air | Paperback |   |
| 2920 | 551.5 | Pollard, M | Air, Water and Weather | Hardback |   |
| 11895 | 920 | Mayes Frances | Albert Einstein - Spilling the Beans on | Paperback |   |
| 7298 | Fiction | Mahy, M | Aliens In the Family | Paperback |   |
| 5550 | Fiction | Mahy, M | Aliens In the Family | Paperback |   |
| 15239 | 333.794 | Morgan, Sally | Alternative Energy Sources | Paperback |   |
| 14612 | 591.472 | Weber, Belinda | Animal Disguises | Paperback |   |
| 18366 | 591.472 | Weber, Belinda | Animal Disguises | Paperback |   |
| 5619 | 591 | Ganeri, A | Animal Science | Hardback |   |
| 18967 | 590 | Gray, Leon | Animals | Paperback |   |
| 14611 | 599.8 | Taylor, Barbara | Apes and Monkeys | Paperback |   |
| 18372 | 599.8 | Taylor, Barbara | Apes and Monkeys | Paperback |   |
| 18871 | 570 | Fullick, Ann | AQA GCSE Biology | Paperback |   |
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| 13314 | 551.46 | Gaff Jackie | Aquamans Guid to the Oceans | Paperback |   |
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| 14723 |   | Delaney, Joseph | Arena 13 | Paperback |   |
| 14724 |   | Delaney, Joseph | Arena 13: The Prey | Paperback |   |
| 14722 |   | Delaney, Mr. Joseph | Arena 13: the Warrior | Paperback |   |
| 7002 | Fiction | Whitman, John | Army of Terror | Paperback |   |
| 14243 | Fiction | Arksey, Neil | As Good as Dead in Downtown | Paperback |   |
| 19364 | 813.6 | Ness, Patrick | Ask and the Answer, The | Paperback |   |
| 4056 | 525 | Couper, H | Astronomy | Hardback |   |
| 14250 | Fiction | Cole, Steve | Astrosaurs Academy | Paperback |   |
| 14174 | Fiction | Cole, Steve | Astrosaurs Academy: Destination Danger | Paperback |   |
| 2955 | 574 | Freeman, D | Beautiful Bodies | Hardback |   |
| 18925 | Fiction | Nielsen, Jennifer A. | Behind Enemy Lines | Hardback |   |
| 14051 | 520 | Fox, Karen C. | Big Bang Theory, The: What it is, Where it Came from and Why it Works | Paperback | http:// |
| 14784 | Fiction | Pilkey, Dav | Big, Bad Battle of the Bionic Booger Boy: Pt.2: Revenge of the Ridiculous Robo-Boogers | Paperback |   |
| 12549 | 371.26 | James Mary | Biology | Paperback |  |

**School Library - Chemistry - Metals**

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| 4632 | 540 | Walters, D | Chemistry | Hardback |   |
| 6065 | 540 | Newmark, A | Chemistry | Hardback |   |
| 11179 | 371.26 | Russell Brian | Essentials of GCSE D.T. Resistant Materials | Paperback |   |
| 11180 | 371.26 | Russell Brian | Essentials of GCSE D.T. Resistant Materials | Paperback |   |
| 3273 | 669.772 | Dineen, J | Focus on Aluminium | Hardback |   |
| 7346 | 781.64 | Brunning, B | Heavy Metal | Hardback |   |
| 4220 | 672 | Saville, J P | Iron and Steel | Hardback |   |
| 2560 | 338 | Kerrod, R | Manufacturing Industry | Hardback |   |
| 6068 | 539 | Cooper, C | Matter | Hardback |   |
| 2893 | 549 | Kerrod, R | Metals | Hardback |   |
| 3333 | 669 | Whyman, K | Metals and Alloys | Hardback |   |
| 10315 | 669 | Scott,P | Metalworking | Hardback |   |
| 3305 | 684 | Punter, I | Projects and Design In Metalwork | Hardback |   |
| 2911 | 552 | Symes, R F | Rock and Mineral | Hardback |   |
| 2909 | 552 | Symes, R F | Rock and Mineral | Hardback |   |
| 16603 | 530 |   | Why Do Liquids Change To Gas? | Book |  |