

GCSE Biology Resource Pack

Below is a collection of curriculum specific broadcast material, sorted by exam board and then study theme. The document will be updated as new content is added and old content is removed.

OCR

B1 - Cell level systems - Cell structures; what happens in cells (and what do cells need?); respiration; photosynthesis.

- <https://www.bbc.co.uk/programmes/b01nln7d/clips> - BBC Two - Secret Universe: The Hidden Life of the Cell
- <https://www.bbc.co.uk/programmes/b011vf07/clips> - BBC Four - Botany: A Blooming History – Photosynthesis – Clips
- <https://www.bbc.co.uk/programmes/b0435jyv> - BBC Radio 4 – In Our Time – Photosynthesis
- <https://www.bbc.co.uk/programmes/b04v5vjz/clips> - BBC Four - The Secrets of Quantum Physics – The Mystery of Photosynthesis – Clip
- <https://www.bbc.co.uk/programmes/p00vc0gv> - BBC World Service – Discovery – Photosynthesis
- <https://www.bbc.co.uk/programmes/p03kc6wj> - BBC World Service - Growing Science – Light
- <https://www.bbc.co.uk/programmes/p01k351t> - BBC Two - Science of the Harvest – Clip – How Photosynthesis is Vital to the Success of Farming

B2 - Scaling up - supplying the cell; the challenges of size.

B3 - Organism level Systems - Coordination and control - the nervous system; coordination and control - the endocrine system; maintaining internal environments.

- <https://www.bbc.co.uk/programmes/p033k0sg> - BBC World Service – Body Talk – The Nervous System
- <https://www.bbc.co.uk/programmes/b00y9283> - BBC Radio 4 - In Our Time – The Nervous System

B4 - Community Level Systems - ecosystems.

- <https://www.bbc.co.uk/programmes/b01rd374> - BBC Four - Insect Worlds
- <https://www.bbc.co.uk/programmes/b01l2swt/episodes/player> - BBC Four - Nature's Microworld's
- <https://www.bbc.co.uk/programmes/p0376qsg> - BBC World Service – Science View – Ocean Systems
- <https://www.bbc.co.uk/programmes/b008044n/clips> - BBC One - The Blue Planet – Clips
- <https://www.bbc.co.uk/programmes/b01k73zy/clips> - BBC Two - Secrets of Our Living Planet – Clips
- <https://www.bbc.co.uk/programmes/p03jwhss> - BBC World Service – The Beginner's Guide to Science – Plant Ecology

- <https://www.my5.tv/alaska-a-year-in-the-wild-2/season-3> - Channel 5 - Alaska: A Year in the Wild
- <https://www.my5.tv/wild-britain/season-1> - Channel 5 - Wild Britain

B5 - Genes, Inheritance and Selection - Inheritance, natural selection.

- <https://www.bbc.co.uk/programmes/p0356vjy> - BBC World Service – Genetics Made Simple – What Are Genes?
- <https://www.bbc.co.uk/programmes/p005495d> - BBC Radio 4 – In Our Time – Lamarck and Natural Selection
- <https://www.bbc.co.uk/programmes/p00xcr7m> - BBC Two - Class Clips – Adaptation of plant life to extreme cold temperatures

B6 - Global challenges - Monitoring and maintaining the environment; feeding the human race; monitoring and maintaining health.

- <https://www.bbc.co.uk/programmes/p03gj23j> - BBC World Service – One Planet – Biodiversity
- <https://www.bbc.co.uk/programmes/p033jsqd> - BBC World Service – Feeding the World – Hunger: What Needs to be Done

AQA

Cell Biology - Eukaryotes and prokaryotes; animal and plant cells; cell specialisation; cell differentiation; microscopy; culturing microorganisms; chromosomes; mitosis and the cell cycle; stem cells; transport in cells - diffusion; osmosis; active transport;

- <https://www.bbc.co.uk/programmes/w3cstzrn> - BBC World Service – Science in Action – The Algae That Changed the Earth
- <https://www.bbc.co.uk/programmes/b01qyfw5> - BBC Radio 4 – The Forum – Plant and Flower Shapes
- <https://www.bbc.co.uk/programmes/p03vkvfn> - BBC World Service – Science in Action – Tracking Individual Cells from Early Embryo to Adult
- <https://www.bbc.co.uk/programmes/b01mk8vh> - BBC Radio 4 – In Our Time – The Cell
- <https://www.bbc.co.uk/programmes/p051b9r8> - BBC World Service – CrowdScience – Why Do We Have Males and Females?
- <https://www.bbc.co.uk/programmes/p03jrtsw> - BBC World Service – Science in Action – Secrets of the Chromosome
- <https://www.bbc.co.uk/programmes/p03jrwh9> - BBC World Service – Discovery – Stem Cells and the Brain
- <https://www.bbc.co.uk/programmes/p0188d3s> - BBC World Service – Science in Action – Stem Cells

Organisation - Principles of organisation; animal tissues, organs and organ systems - the human digestive system; the heart and blood vessel; blood; coronary heart disease - a non-communicable disease; health issues; the effect of lifestyle on some non-communicable diseases; cancer; plant tissues, organs and systems; plant organ system

- <https://www.bbc.co.uk/programmes/p033k7ng> - BBC World Service – Heart Disease

- <https://www.bbc.co.uk/programmes/w3cswd1q> - BBC World Service – Discovery – Bacteria and Blood – The Curious Case of Rutherford and Fry

Infection and Response - Communicable diseases; viral diseases; bacterial diseases; fungal diseases; protist diseases; human defence systems; vaccination; antibiotics and painkillers; discovery and development of drugs; monoclonal antibodies; uses of monoclonal antibodies; plant disease - detection and identification of plant diseases; plant defence responses.

- <https://www.bbc.co.uk/programmes/w3cswd1q> - BBC World Service – Discovery – Bacteria and Blood – The Curious Case of Rutherford and Fry
- <https://www.bbc.co.uk/programmes/p035cybl> - BBC World Service – Health Matters – The Next Big Virus
- <https://www.bbc.co.uk/programmes/p00zxntl> - BBC Two - Secret Universe: The Hidden Life of the Cell – The Cell Secret Immune System
- <https://www.bbc.co.uk/programmes/p03jrxjn> - BBC World Service – The Rise of Autoimmune Diseases
- <https://www.bbc.co.uk/programmes/p035cz0n> - BBC World Service – Health Matters – Vaccinating Children – Saving Millions of Lives

Bioenergetics - Photosynthesis; rate of photosynthesis; uses of glucose for photosynthesis; respiration - aerobic and anaerobic respiration; response to exercise; metabolism;

- <https://www.bbc.co.uk/programmes/p011t43z> - BBC Four - Botany: A Blooming History – Clips
- <https://www.bbc.co.uk/programmes/b0435jyv> - BBC Radio 4 – IN Our Time – Photosynthesis
- <https://www.bbc.co.uk/programmes/b04v5vjz/clips> - BBC Four - The Secrets of Quantum Physics – The Mystery of Photosynthesis
- <https://www.bbc.co.uk/programmes/p00vc0gv> - BBC World Service – Discovery – Artificial Photosynthesis
- <https://www.bbc.co.uk/programmes/p03kc6wj> - BBC World Service – Growing Science – Light

Homeostasis and Response - Homeostasis; the human nervous system - structure and function; the brain; the eye; control of body temperature; hormonal coordination in humans; control of blood glucose concentration; maintaining water and nitrogen balance in the body; hormones in human reproduction; contraception; the use of hormones to treat infertility; negative feedback; plant hormones; use of plant hormones.

- <https://www.bbc.co.uk/programmes/p033k0sg> - BBC World Service – Body Talk – The Nervous System
- <https://www.bbc.co.uk/programmes/b00y9283> - BBC Radio 4 – In Our Time – The Nervous System
- <https://www.bbc.co.uk/programmes/p051skbv> - BBC World Service – Business Daily – Hormones – Series
- <https://www.bbc.co.uk/programmes/w3cswgpw> - BBC World Service – Business Daily – The Pill

Inheritance, Variation and Evolution - Reproduction - sexual and asexual reproduction; meiosis; advantage and disadvantages of sexual and asexual reproduction; DNA and the genome; DNA structure; genetic inheritance; inherited disorders; sex determination; variation and evolution;

selective breeding; genetic engineering; cloning; the theory of evolution; speciation; the understanding of genetics; evidence for evolution; fossils; extinction; resistant bacteria; classification of living organisms

- <https://www.bbc.co.uk/programmes/b01q1ml3> - BBC Radio 4 – A Brief Natural History of Sex
- <https://www.bbc.co.uk/programmes/p04dnmpd> - BBC World Service – DNA: the Code for Making Life
- <https://www.bbc.co.uk/programmes/p03jrwwz> - BBC World Service – Discovery – The DNA Family Tree
- <https://www.bbc.co.uk/programmes/p0376qrt> - BBC World Service – DNA and Genes
- <https://www.bbc.co.uk/programmes/p03jrwwb> - BBC World Service – Discovery – Evolution
- <https://www.bbc.co.uk/programmes/b00hd5mf/clips> - BBC One - Charles Darwin and the Tree of Life – Clips

Ecology - Adaptation, interdependence and competitions; communities; abiotic factors; biotic factors; adaptations; levels of organisation; how materials are cycled; decomposition; impact of environmental change; biodiversity and the effect of human interaction on ecosystem; waste management; land use; deforestation; global warming; maintaining biodiversity; trophic levels; pyramids of biomass; transfer of biomass; food production - factors affecting food security; farming techniques; sustainable fisheries; role of biotechnology;

- <https://www.bbc.co.uk/programmes/b04d4hq2> - BBC Radio 4 Extra – Plants from Roots to Riches – Unlocking Biodiversity
- <https://www.bbc.co.uk/programmes/p03gj23j> - BBC World Service – One Planet – Biodiversity
- <https://www.bbc.co.uk/programmes/p03cgbx3> - BBC World Service – Global Concerns – Global Biodiversity
- <https://www.bbc.co.uk/programmes/p03jrwwx> - BBC World Service – Extinction, Creation and Biodiversity
- <https://www.bbc.co.uk/programmes/p03855rk> - BBC World Service – Discovery – Future of Biodiversity
- <https://www.bbc.co.uk/programmes/w3cstzrs> - BBC World Service – Science in Action – Hurricanes and Global Warming
- <https://www.bbc.co.uk/programmes/p03cgmxr> - BBC World Service – Weatherworld – Global Warming
- <https://www.bbc.co.uk/programmes/p0359tm9> - BBC World Service – Insight – Global Warming
- <https://www.bbc.co.uk/programmes/p0376qvy> - BBC World Service – Science View – Global Warming
- <https://www.bbc.co.uk/programmes/p03bh5r5> - BBC World Service – Talking Point – Global Warming
- <https://www.bbc.co.uk/programmes/p04ykfbk> - BBC World Service – CrowdScience – Should we Eat Insects?
- <https://www.bbc.co.uk/programmes/p03m5mfj> - BBC World Service – Politics of Food – Food
- <https://www.bbc.co.uk/programmes/p0376rg9> - BBC World Service – Science View – Enough Food for the Future

WJEC

Cell Biology - Prokaryotic and eukaryotic cells; growth and development of cells; cell metabolism

- <https://www.bbc.co.uk/programmes/b01nln7d/clips> - BBC Two - Secret Universe: The Hidden Life of the Cell

Transport Systems - Transport in cells; transport systems in humans; transport systems in plants.

Health, Disease and the Development of Medicine - health and disease; communicable disease; treating, curing and preventing disease; non-communicable diseases in humans.

- <https://www.bbc.co.uk/programmes/w3cswd1q> - BBC World Service – Discovery – Bacteria and Blood – The Curious Case of Rutherford and Fry
- <https://www.bbc.co.uk/programmes/p035cybl> - BBC World Service – Health Matters – The Next Big Virus
- <https://www.bbc.co.uk/programmes/p00zxntl> - BBC Two - Secret Universe: The Hidden Life of the Cell – The Cell Secret Immune System
- <https://www.bbc.co.uk/programmes/p03jrxjn> - BBC World Service – The Rise of Autoimmune Diseases
- <https://www.bbc.co.uk/programmes/p035cz0n> - BBC World Service – Health Matters – Vaccinating Children – Saving Millions of Lives

Coordination and Control - Nervous coordination and control in humans; hormonal coordination and control in humans; homeostasis in humans; plant hormones.

- <https://www.bbc.co.uk/programmes/p033k0sg> - BBC World Service – Body Talk – The Nervous System
- <https://www.bbc.co.uk/programmes/b00y9283> - BBC Radio 4 – In Our Time – The Nervous System
- <https://www.bbc.co.uk/programmes/p051skbv> - BBC World Service – Business Daily – Hormones – Series
- <https://www.bbc.co.uk/programmes/w3cswgpw> - BBC World Service – Business Daily – The Pill

Photosynthesis

- <https://www.bbc.co.uk/programmes/b011vf07/clips> - BBC Four - Botany: A Blooming History – Photosynthesis – Clips
- <https://www.bbc.co.uk/programmes/b0435jyv> - BBC Radio 4 – In Our Time – Photosynthesis
- <https://www.bbc.co.uk/programmes/b04v5vjz/clips> - BBC Four - The Secrets of Quantum Physics – The Mystery of Photosynthesis – Clip
- <https://www.bbc.co.uk/programmes/p00vc0gv> - BBC World Service – Discovery – Photosynthesis
- <https://www.bbc.co.uk/programmes/p03kc6wj> - BBC World Service - Growing Science – Light

- <https://www.bbc.co.uk/programmes/p01k351t> - BBC Two - Science of the Harvest – Clip – How Photosynthesis is Vital to the Success of Farming

Ecosystems - Levels of organisation within an ecosystem; the principle of material cycling; biodiversity; some of the biological challenges of increasing food yields using fewer resources.

- <https://www.bbc.co.uk/programmes/p04ykfkb> - BBC World Service – CrowdScience – Should we Eat Insects?
- <https://www.bbc.co.uk/programmes/p03m5mfj> - BBC World Service – Politics of Food – Food
- <https://www.bbc.co.uk/programmes/p0376rg9> - BBC World Service – Science View – Enough Food for the Future
- <https://www.bbc.co.uk/programmes/b04d4hq2> - BBC Radio 4 Extra – Plants from Roots to Riches – Unlocking Biodiversity
- <https://www.bbc.co.uk/programmes/p03gj23j> - BBC World Service – One Planet – Biodiversity
- <https://www.bbc.co.uk/programmes/p03cgbx3> - BBC World Service – Global Concerns – Global Biodiversity
- <https://www.bbc.co.uk/programmes/p03jrwqx> - BBC World Service – Extinction, Creation and Biodiversity
- <https://www.bbc.co.uk/programmes/p03855rk> - BBC Four - Insect Worlds
- <https://www.bbc.co.uk/programmes/b01l2swt> - BBC Four - Nature's Microworlds
- <https://www.bbc.co.uk/programmes/p0376qsg> - BBC World Service – Science View – Ocean Ecosystems
- <https://www.my5.tv/alaska-a-year-in-the-wild-2/season-3> - Channel 5 - Alaska: A Year in the Wild
- <https://www.my5.tv/wild-britain/season-1> - Channel 5 - Wild Britain

Inheritance, Variation and Evolution - the genome and gene expression; inheritance; variation and evolution; selective breeding and gene technology.

- <https://www.bbc.co.uk/programmes/p04dnmpd> - BBC World Service – DNA: the Code for Making Life
- <https://www.bbc.co.uk/programmes/p03jrwvz> - BBC World Service – Discovery – The DNA Family Tree
- <https://www.bbc.co.uk/programmes/p0376qrt> - BBC World Service – DNA and Genes
- <https://www.bbc.co.uk/programmes/p03jrwcb> - BBC World Service – Discovery – Evolution
- <https://www.bbc.co.uk/programmes/b00hd5mf/clips> - BBC One - Charles Darwin and the Tree of Life – Clips