



Biology Super Curriculum

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Cancer Genomics | Genetics Of Cancer and Leukemia | Science Documentary
The Antibiotic Resistance Crisis | Health | Science News

Websites – for articles and podcasts:

Ibiblio
Noble Prize
Nature
The Royal Society
London Natural History Museum
British Medical Journal
BBC News – Science and the Environment
Biozone



MOOCs

Marine/Aquatic Biology

Molecular Biology: How to Detect Pathogens in Aquaculture

<https://www.futurelearn.com/courses/molecular-biology-how-to-detect-pathogens-in-aquaculture>

SDG 14: Global Action for Marine Conservation

<https://www.futurelearn.com/courses/global-action-for-marine-sustainability>

Life Below Water: Conservation, Current Issues, Possible Solutions

<https://www.futurelearn.com/courses/life-below-water-biodiversity-ecology-human-impacts-and-solutions>

Ocean Science in Action: Addressing Marine Ecosystems and Food Security

<https://www.futurelearn.com/courses/ocean-science-in-action-addressing-marine-ecosystems-and-food-security-in-the-western-indian-ocean>

Genetics

MedTech: Exploring the Human Genome

<https://www.futurelearn.com/courses/medtech-exploring-the-human-genome>

Making sense of genomic data: COVID-19 web-based bioinformatics

<https://www.futurelearn.com/courses/making-sense-of-genomic-data-covid-19-web-based-bioinformatics>

The Power of Genomics to Understand the COVID-19 Pandemic

<https://www.futurelearn.com/courses/genomics-covid-19>

Cancer in the 21st Century: The Genomic Revolution

<https://www.futurelearn.com/courses/cancer-and-the-genomic-revolution>

Genomic Medicine: Harnessing the Power of the Human Genome

<https://www.futurelearn.com/courses/harnessing-the-power-of-genomics-in-medicine>

Why Biology Matters: The Genome and You

<https://www.futurelearn.com/courses/biology-genome-and-you>

Ecology and conservation

Ecology and Wildlife Conservation

<https://www.futurelearn.com/courses/ecology-and-wildlife-conservation>

Planet Earth: Understanding and Protecting our Environment

<https://www.futurelearn.com/courses/planet-earth>

Life on Land: Ecology, Evolution, Challenges, and Solutions

<https://www.futurelearn.com/courses/life-on-land>

Extinctions: Past and Present

<https://www.futurelearn.com/courses/extinctions-past-present>

Climate Change and Resilience in Food Systems

<https://www.futurelearn.com/courses/climate-change-and-resilience-in-food-systems>

A Beginner's Guide to Environmental Science: Wicked Problems and Possible Solutions

<https://www.futurelearn.com/courses/introduction-to-environmental-science>

Anatomy and Medical Biology

Understanding Insulin

<https://www.futurelearn.com/courses/understanding-insulin>

Anatomy: Know Your Abdomen

<https://www.futurelearn.com/courses/anatomy-know-your-abdomen>

Heart Health: A Beginner's Guide to Cardiovascular Disease



<https://www.futurelearn.com/courses/heart-health>

Exploring Cancer Medicines

<https://www.futurelearn.com/courses/exploring-cancer-medicines>

Pupillometry: The Eye as a Window Into the Mind (cross-curricular with Psychology)

<https://www.futurelearn.com/courses/pupillometry-course>

Causes of Human Disease: Exploring Cancer and Genetic Disease

<https://www.futurelearn.com/courses/human-disease-exploring-cancer-genetic-disease>

Exploring Anatomy: the Human Abdomen

<https://www.futurelearn.com/courses/anatomy>

From Swab to Server: Testing, Sequencing, and Sharing During a Pandemic

<https://www.futurelearn.com/courses/from-swab-to-server-testing-sequencing-sharing-during-a-pandemic>

Physiology: The Science of Life

<https://www.futurelearn.com/courses/physiology>

Cancer in the 21st Century: The Genomic Revolution

<https://www.futurelearn.com/courses/cancer-and-the-genomic-revolution>

Genomic Medicine: Harnessing the Power of the Human Genome

<https://www.futurelearn.com/courses/harnessing-the-power-of-genomics-in-medicine>

Research Methods in Psychology: Using Animal Models to Understand Human Behaviour (cross curricular with psychology)

<https://www.futurelearn.com/courses/research-methods-psychology-animal-models-to-understand-human-behaviour>

Why Do We Age? The Molecular Mechanisms of Ageing

<https://www.futurelearn.com/courses/ageing>

Ultrasound Imaging: What Is Inside?

<https://www.futurelearn.com/courses/ultrasound-imaging>

Genomic Medicine: Transforming Patient Care in Diabetes

<https://www.futurelearn.com/courses/diabetes-genomic-medicine>

Learning and Memory: Understandings from Educational Neuroscience

<https://www.futurelearn.com/courses/learning-and-memory>

Ageing and The Brain: The Impact of Neurodegenerative Diseases

<https://www.futurelearn.com/courses/brain-ageing>

Liver Disease: Looking after Your Liver

<https://www.futurelearn.com/courses/liver-disease>

Vaccine Development: Finding a Vaccine for COVID-19 and Future Pandemics

<https://www.futurelearn.com/courses/vaccines-covid-19>

The Genomics Era: the Future of Genetics in Medicine

<https://www.futurelearn.com/courses/the-genomics-era>

Discover Dentistry

<https://www.futurelearn.com/courses/discover-dentistry>

Microbiology

The Human Microbiome

<https://www.futurelearn.com/courses/the-human-microbiome>

Small and Mighty: Introduction to Microbiology

<https://www.futurelearn.com/courses/introduction-to-microbiology>

Exploring the Landscape of Antibiotic Resistance in Microbiomes

<https://www.futurelearn.com/courses/exploring-the-landscape-of-antibiotic-resistance-in-microbiomes>

Exploring the Landscape of Antibiotic Resistance in Microbiomes



<https://www.futurelearn.com/courses/exploring-the-landscape-of-antibiotic-resistance-in-microbiomes>

Introduction to Practical Microbiology

<https://www.futurelearn.com/courses/basic-concepts-in-microbiology-and-clinical-pharmacology-of-antimicrobials>

Challenges in Antibiotic Resistance: Gram Negative Bacteria

<https://www.futurelearn.com/courses/gram-negative-bacteria>

Antimicrobial Resistance in the Food Chain

<https://www.futurelearn.com/courses/antimicrobial-resistance-food-chain>

Tackling Antibiotic Resistance: What Should Dental Teams Do?

<https://www.futurelearn.com/courses/tackling-antibiotic-resistance-dentists>

Biotechnology and Biochemistry

Artificial Intelligence in Bioinformatics

<https://www.futurelearn.com/courses/artificial-intelligence-in-bioinformatics>

Biochemistry: the Molecules of Life

<https://www.futurelearn.com/courses/biochemistry>

Improving Food Production with Agricultural Technology and Plant Biotechnology

<https://www.futurelearn.com/courses/food-production-agricultural-technology-plant-biotechnology>

Forensic Science

Decoding Forensics for Legal Professionals

<https://www.futurelearn.com/courses/decoding-forensics>

Forensic Facial Reconstruction: Finding Mr. X

<https://www.futurelearn.com/courses/forensic-facial-reconstruction>

General

The Basis of Life: Understanding Human Cells

<https://www.futurelearn.com/courses/introduction-to-human-cells-the-basis-of-life>

Finding the Body's Balance: Understanding Homeostasis

<https://www.futurelearn.com/courses/finding-the-body-s-balance-understanding-homeostasis>

Understanding Biological Energy

<https://www.futurelearn.com/courses/biological-energy>

The Biology of Bugs, Brains, and Beasts

<https://www.futurelearn.com/courses/the-biology-of-bugs-brains-and-beasts>

Books

The Selfish Gene by Richard Dawkins.

The Blind Watchmaker by Richard Dawkins

Endless Forms Most Beautiful by Sean Carroll

The Gene by Siddhartha Mukherjee

The Sixth Extinction by Elizabeth Kolbert

A Crack in Creation by Jennifer Doudna and Samuel Sternberg

Life Itself by Richard Dawkins

The Gene Machine by Matt Ridley

Darwin's Black Box by Michael J Behe

The Curious Life of Robert Hooke by Lisa Jardine

[Do No Harm](#) by Henry Mars

The Emperor of All Maladies by Siddhartha Mukherjee



The Epigenetics Revolution by Nessa Care
Genome by Matt Ridley
The Human Brain by Susan Greenfield
[The Immortal Life of Henrietta Lacks](#) by Rebecca Skloot
In Stitches by Dr Nick Edwards
The Music of Life – Biology Beyond Genes by Denis Noble
Nature via Nurture by Matt Ridley
Spillover by David Quammen

Documentaries

The Human Race | Genetics and DNA | Science Full Documentary
<https://www.youtube.com/watch?v=f4UN-wScFWg>
The Evolution Of Humans | Science Full Documentary
https://www.youtube.com/watch?v=_zN480tPFJQ&list=PLQrWE7IEITEdP17Jp5Yi2-kDSwxN_B3ud&index=1
The Evolution Of Viruses | Science Full Documentary | The Deadliest Viruses In The World
https://www.youtube.com/watch?v=50-wFxuliSA&list=PLQrWE7IEITEdP17Jp5Yi2-kDSwxN_B3ud&index=3
Web of Complex Biology | Science Documentary | Bill Nye
https://www.youtube.com/watch?v=XQgvsXQ6AyE&list=PLQrWE7IEITEdP17Jp5Yi2-kDSwxN_B3ud&index=5
The Human Brain Explained | Neuroscience Full Documentary
https://www.youtube.com/watch?v=YBsAwUn-kVs&list=PLQrWE7IEITEdP17Jp5Yi2-kDSwxN_B3ud&index=9
The Secret Life of Sharks | Science Documentary
https://www.youtube.com/watch?v=6tJJRIV4CqQ&list=PLQrWE7IEITEdP17Jp5Yi2-kDSwxN_B3ud&index=13
Cancer Genomics | Genetics Of Cancer and Leukemia | Science Documentary
https://www.youtube.com/watch?v=-d9z9iLt7M&list=PLQrWE7IEITEdP17Jp5Yi2-kDSwxN_B3ud&index=23
The Antibiotic Resistance Crisis | Health | Science News
https://www.youtube.com/watch?v=ID0cKND8TS8&list=PLQrWE7IEITEdP17Jp5Yi2-kDSwxN_B3ud&index=25

Websites – for articles and podcasts

<http://www.ibiblio.org/virtualcell/index.htm> - An interactive cell biology site
<http://nobelprize.org> - Details of the history of the best scientific discoveries
<http://nature.com> - The site of the scientific journal
<http://royalsociety.org> - Podcasts, news and interviews with scientists about recent scientific developments
<http://www.nhm.ac.uk> - The London Natural History Museum's website with lots of interesting educational material
<http://www.bmj.com> - The website of the British Medical Journal
http://www.bbc.co.uk/news/science_and_environment - The BBC news page for Science and the Environment
<https://www.biozone.co.uk/biolinks/> - Links to many websites