

Biology

Subject Lead: Mrs Hurst

Email: ehurst36ra@nsix.org.uk

Key topics covered

Year 12

Unit 1 – Biological molecules – Carbohydrates, DNA, Lipids, Proteins, Water & the bonds between them.

Unit 2 – Cells – Microscope, Cell structure, Immune system, particle Movement & Types of Cells.

Unit 3 – Exchange & Transport – Digestion, Gills, Hearts, Insects, Leaves, Lungs, Roots, etc

Unit 4 – Genes – Biodiversity, Cell division & Genetics.

Year 13

Unit 5 – Energy Transfer – Ecosystem, Photosynthesis & Respiration

Unit 6 – Responses – Homeostasis, Plants and Nerves.

Unit 7 – Genetics – Inheritance, Populations and Speciation.

Unit 8 – Gene Expression – Cloning, Diseases, Genetic fingerprinting.

Recommended Textbook and/or resources

AQA Biology 2nd Edition, ISBN 978-0-019-835177-1
Amazon, Waterstones, Scopy - £46

Maths for A Level Biology, ISBN 9780198428992
Amazon £8.50

Physicsandmathstuor.com

Past paper and mark schemes provision

Resources – Scientific Calculator

Super-curricular reading.

The Language of Genes – Matt Ridley

The Lives of a Cell – Lewis Thomas

newscientist.com

Why Study the Subject/what students Like about it

Biology is a great choice of subject for people who want a career in health and clinical professions, such as medicine, nursing, biochemistry, midwifery, dentistry or forensic science. It will also equip you for a career in industry, for example in the pharmaceutical industry, zoo, veterinary nursing, horticulture, microbiology etc.

‘Biology helped me understand things in a lot more detail than I realised existed. It was a big change from GCSE, with needing to do more of my own back ground work. But I’ve developed a whole range of Biology jokes and love the courses I’ve been able to apply to’.

Opportunities outside the classroom

Online and in person access to Alumni talks at UEA.

E.g. Medical careers

Insight days including taster sessions, practical workshops and staff discussions at Outreach UEA.

E.g. DNA fingerprinting

Future progression/career routes

Medicine, Radiography, Pharmacology, Marine Science, Veterinary including nursing, Midwifery.

Josh – BSc Diagnostic Radiography – Liverpool Uni

