



Science at SWB 6th

Careers in Biology

Biotechnologist
Marine Biologist
Pharmacologist
Research Scientist
Lab Technician
Nature Conservation Officer
Secondary Teacher

Subject: Biology

Awarding body: AQA

Course level: 3

Category: A Level Qualification size: 1 A Level

Entry requirements; • Grade 6 or above in Combined Science, Grade 6 or above in separate subjects with a 5 or above in English and Maths.

The A-Level Syllabus

Topic 1 Biological molecules

Topic 2 Cells

Topic 3 Organisms exchange substances with their environment

Topic 4 Genetic information, variation and relationships between organisms

Topic 5 Energy transfers in and between organisms (A-Level only)

Topic 6 Organisms respond to changes in their internal and external environments (A-Level only)

Topic 7 Genetics, populations, evolution and ecosystems (A-Level only)

Topic 8 The control of gene expression (A-Level only)

Studying Biology will enable you to understand the similarities between all living things. You will learn how cells, (smaller than the eye can see), make up the largest animals and how these animals and all other life are controlled by two tiny strands of DNA. You will learn by practical work, theory, group and independent work.

Careers in Chemistry

Analytical Chemist
Chemical Engineer
Forensic Scientist
Pharmacologist
Research Scientist
Toxicologist
Secondary Teacher

Subject: Chemistry

Awarding body: AQA

Course level: 3

Category: A Level Qualification size: 1 A Level

Entry requirements; • Grade 6 or above in Combined Science,
Grade 6 or above in separate subjects with a 5 or above in English
and Maths.

The A-Level Syllabus

Topic 1 Physical Chemistry

Topic 2 Inorganic Chemistry

Topic 3 Organic Chemistry

Chemistry is the study of processes which make the world work. You will learn about how atoms interact with each other to build everything around you. As well as theoretical chemistry, practical work will teach you to observe, analyse and communicate complicated ideas.

Careers in Physics

Acoustic Consultant
Geophysicist
Metallurgist
Radiation Practitioner
Research Scientist
Nuclear Engineer
Secondary Teacher

Subject: Physics

Awarding body: AQA

Course level: 3

Category: A Level Qualification size: 1 A Level

Entry requirements; • Grade 6 or above in Combined Science,
Grade 6 or above in separate subjects with a 5 or above in English
and Maths.

The A-Level Syllabus

Topic 1 Measurement and their errors

Topic 2 Particles and radiation

Topic 3 Waves

Topic 4 Mechanics and materials

Topic 5 Electricity

Topic 6 Further mechanics and thermal physics (A-Level only)

Topic 7 Fields and their consequences (A-Level only)

Topic 8 Nuclear Physics (A-Level only)

Topic 9 Astrophysics (A-Level only)

Topic 10 Medical Physics (A-Level only)

Topic 11 Engineering Physics (A-Level only)

Topic 12 Turning points in Physics (A-Level only)

Topic 13 Electronics (A-Level only)

Physics is a subject which allows students to explore the building blocks of the universe. Students will come to understand how and why the world and everything around them behaves as it does. Through experimentation and theory, students learn to explore and communicate ideas.

Careers in Science

Research Scientist
Forensics
Pharmacologist
Lab Technician
Healthcare Scientist
Water Quality Scientist
Secondary Teacher

Subject: Applied Science National Certificate

Awarding body: Pearson

Course level: 3

Category: Vocationally-Related Qualification

Qualification size: 1

Entry requirements; • Grade 5 or above in Combined Science, Grade 5 or above in Separate Science with a 4 or above in English and Maths.

Subject: Applied Science National Diploma

Awarding body: Pearson

Course level: 3

Category: Vocationally-Related Qualification

Qualification size: 2

Entry requirements; • Grade 5 or above in Combined Science, Grade 5 or above in Separate Science with a 4 or above in English and Maths.

The applied science sector is diverse and wide-ranging, including, for example, biomedical, forensic, physical and chemical sciences. There are approximately 5.8 million people employed in applied science occupations in the UK. This equates to approximately 20% of the workforce.