



SEPARATE SCIENCES (BIOLOGY A, PHYSICS A AND CHEMISTRY A)

AWARDING BODY: OCR - GATEWAY

QUALIFICATION: GCSE

AVAILABLE: ALL STUDENTS

COURSE OUTLINE

This route involves students studying for three Science GCSE qualifications, one in each of Biology, Chemistry and Physics. Students follow the same course as described in the combined Science course, with additional content studied in each of the units. Students find this route demanding and it is aimed principally at students who have a passion and proven ability for Science.

At the end of year 9, students who achieve a place in set 1 are offered the opportunity to begin the study of the separate Science options. If the students are coping well and are achieving an 8 or a 9 in their year 10 end of year exams, they are then entered for the three separate Sciences

- The use of conceptual models and theories to make sense of the observed diversity of natural phenomena;
- The assumption that every effect has one or more cause;
- That science progresses through a cycle of hypothesis, practical experimentation, observation, theory development and review;
- That quantitative analysis is a central element both of many theories and of Scientific methods of inquiry.

Biology

B1: Cell level systems
B2: Scaling up
B3: Organism level systems
B4: Community level systems
B5: Genes, inheritance and selection
B6: Global challenges

Physics

P1: Matter
P2: Forces
P3: Electricity
P4: Magnetism and magnetic fields
P5: Waves in matter
P6: Radioactivity
P7 Energy
P8: Global challenges

Chemistry

C1: Particles
C2: Elements, compounds and mixtures
C3: Chemical reactions
C4: Predicting and identifying reactions and prod
C5: Monitoring and controlling chemical reactions
C6: Global challenges



ASSESSMENT METHOD

Terminal Paper (100%): 6 papers sat in year 11 each paper will last 1 hour and 45 minutes and each will be worth 90 marks. Assessing student's knowledge and understanding of Biology, Chemistry and Physics. All students are entered for higher tier, grades 4.9

SKILLS ACQUIRED

- To make informed personal decisions about issues and questions that involve Science
- To gain scientific knowledge, leading to a better understanding of the world
- To develop a range of practical skills
- To develop mathematical skills
- To develop investigatory and analytical skills
- To develop skills in the presentation of scientific data

Specification - Biology: <http://www.ocr.org.uk/Images/234594-specification-accredited-gcse-gateway-science-suite-biology-a-j247.pdf>

Specification - Chemistry: <http://www.ocr.org.uk/Images/234598-specification-accredited-gcse-gateway-science-suite-chemistry-a-j248.pdf>

Specification - Physics: <http://www.ocr.org.uk/Images/234600-specification-accredited-gcse-gateway-science-suite-physics-a-j249.pdf>

Assessment - Biology: <http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-biology-a-j247-from-2016/>

Assessment - Chemistry: <http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-chemistry-a-j248-from-2016/>

Assessment - Physics: <http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-physics-a-j249-from-2016/>