



Science



Key Stage 3

Students in 7X1 and 7Y1 follow a two year KS3 course based on Activate Science and begin Triple Science in Year 9. All other students follow a three year KS3 course also based on the Activate Scheme of Work.

Topics for 2 year KS3:-

Year 7: Cells, Structure and function of the body, Reproduction, Particles and their behaviour, Elements, Atoms and Compounds, Reactions, Acids and Alkalis, Forces, Light , Space, Sound.

Year 8: Health and Lifestyle, Ecosystem processes, Adaptation and Inheritance, Periodic Table, Separating Techniques, Metals and Acids, Earth, Electricity and Magnetism, Energy, Motion and Pressure.

Topics for 3 year KS3:

Year 7 and 8: as above

Year 9: New technology in Biology, Chemistry and Physics, Turning points in Biology Chemistry and Physics, Detection in Biology, Chemistry and Physics

Key Stage 4

We follow the OCR Gateway Syllabus. Triple Science students study three GCSE's in Biology, Chemistry and Physics. Other students study GCSE Science in Year 10 and Additional Science in Year 11. All exams are taken at the end of Year 11. A few students study BTEC Level 1 or 2 Applied Science.

Course Structure for Science (Similar for all GCSE subjects)

| Unit | Modules covered | Examined | Length of Paper | Total Marks | % of Total |
|------|-----------------------|--------------|-----------------|-------------|------------|
| 1 | B1 C1 P1 | June Year 11 | 1 hour 15 mins | 75 | 35 |
| 2 | B2 C2 P2 | June Year 11 | 1 hour 30 mins | 85 | 40 |
| 3 | Controlled assessment | June Year 11 | 6 hours | 48 | 25 |

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|--------------------------------|-----------------|-----------------|------------------------------|
| GCSE Additional Science | Unit 1 B3 C3 P3 | Unit 2 B4 C4 P4 | Unit 3 Controlled Assessment |
| GCSE Biology | Unit 1 B1 B2 B3 | Unit 2 B4 B5 B6 | Unit 3 Controlled Assessment |
| GCSE Chemistry | Unit 1 C1 C2 C3 | Unit 2 C4 C5 C6 | Unit 3 Controlled Assessment |
| GCSE Physics | Unit 1 P1 P2 P3 | Unit 2 P4 P5 P6 | Unit 3 Controlled Assessment |

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|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Science | http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-science-b-j261-from-2012/ |
| Add Science | http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-additional-science-b-j262-from-2012/ |
| Biology | http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-biology-b-j263-from-2012/ |
| Chemistry | http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-chemistry-b-j264-from-2012/ |
| Physics | http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-physics-b-j265-from-2012/ |

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|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BTEC Level 1 | http://www.edexcel.com/quals/flt/app-science/Pages/default.aspx |
| BTEC Level 2 | http://www.edexcel.com/quals/firsts2012/applied-science/Pages/default.aspx |

For further information, please contact Miss. H. Moore, Curriculum Leader for Science

Key Stage 5

We offer A levels in Biology, Chemistry and Physics and BTEC Level 3 Applied Science. The courses are taught jointly with S.Peter's Collegiate school.

OCR Biology:- <http://www.ocr.org.uk/qualifications/as-a-level-gce-biology-h021-h421/>

Syllabus content: AS Biology

| Unit | Topic | Weighting | Timing | Exam |
|------|------------------------------------------|-----------|----------------|--------------|
| F211 | Cells, Exchange and Transport | 30% | 1 hour | June Year 12 |
| F212 | Molecules, Biodiversity, Food and Health | 50% | 1 hour 45 mins | June Year 12 |
| F213 | Practical Skills in Biology | 20% | | June Year 12 |

A2 Biology modules have similar weightings and are examined at the end of Year 13:-

F214 Communications, Homeostasis and Energy (Exam length 1 hour and 15 minutes)

F215 Control, Genomes and Environment (Exam length 2 hours)

F216 Practical Skills in Biology 2

OCR Chemistry A:- <http://www.ocr.org.uk/qualifications/as-a-level-gce-chemistry-a-h032-h432-from-2015/>

Syllabus content: AS Chemistry

| Unit | Topic | Weighting | Timing | Exam |
|------|---------------------------------|-----------|----------------|--------------|
| F321 | Atoms, Bonds and Groups | 30% | 1 hour | June Year 12 |
| F322 | Chains, Energy and Resources | 50% | 1 hour 45 mins | June Year 12 |
| F323 | Practical Skills in Chemistry 1 | 20% | | June Year 12 |

A2 Chemistry modules have similar weightings and are examined at the end of Year 13:-

F324 Rings, Polymers and Analysis (Exam length 1 hour and 15 minutes)

F325 Equilibria, Energetics and Elements (Exam length 2 hours)

F326 Practical Skills in Chemistry 2

AQA Physics A:- <http://www.aqa.org.uk/subjects/science/as-and-a-level/physics-a-2450>

Syllabus content: AS Physics

| Unit | Topic | Weighting | Timing | Exam |
|------|--------------------------------------------------|-----------|----------------|--------------|
| 1 | Particles, quantum phenomena and electricity | 40% | 1 hour 15 mins | June Year 12 |
| 2 | Mechanics, materials and waves | 40% | 1 hour 15 mins | June Year 12 |
| 3 | Investigative and practical skills in AS Physics | 20% | | June Year 12 |

A2 Physics modules have similar weightings are examined at the end of Year 13:-

4 Fields and further mechanics (Exam length 1 hour and 45 minutes)

5 Nuclear and Thermal Physics plus Option Module (Medical Physics) (Exam length 1 hour and 45 minutes)

6 Investigative and practical skills in A2 Physics

BTEC Level 3 Applied Science:- <http://www.edexcel.com/quals/nationals10/appsci/Pages/default.aspx>

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