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| **Science & Technology Faculty - S5/6 CfE Higher Courses** | | | | | |
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|  | **BIOLOGY** | **HUMAN BIOLOGY** | **CHEMISTRY** | **PHYSICS** | **GRAPHIC COMMUNICATION** |
| **Units:** | 1. DNA & The Genome 2. Metabolism & Survival 3. Sustainability & Interdependence | 1. Human Cells 2. Physiology & Health 3. Neurobiology & Communication 4. Immunology & Health | 1. Chemical Changes & Structure 2. Researching Chemistry 3. Nature’s Chemistry 4. Chemistry in Society | 1. Our Dynamic Universe 2. Particles & waves 3. Researching Physics 4. Electricity | 1. 2D Graphic Communication 2. 3D & Pictorial Graphic Communication |
| **Internal Assessment:** | Pass a written test of knowledge and understanding (2.1) and problem solving (2.2). This must be done for *each* of the 3 units. Approx. October; January; March timings. One re-sit opportunity.  Plan, carry out and report on an Investigation (Outcome 1) - only needs to be passed once across all three units.  Researching Unit (Chemistry & Physics Only) – Passes required in Outcomes 1 & 2: Researching; planning & carrying out safely/recording results. This provides experimental data for the externally assessed Assignment. | | | | Evidence for achievement of each Unit Assessment Standard is gathered throughout the course.  Pass required for each unit.  Assignment: 70 marks of final award. Set by SQA. Marked internally.  Verified by SQA. |
| **Exam date:** | **23rdth May 2017** | **23rd May 2017** | **8th May 2017** | **17th May 2017** | **10th May 2017** |
| **External Assessment:** | Exam 2 hours 30 mins : 20 multiple choice; 80 marks restricted & extended answers  Assignment: 20 marks | | | | Exam 2 hours  70 marks: Approx. 50:50 split 2D:3D graphics questions - extended and limited answers; no formal drawing (sketches). |
| **Study Support:** | Tues 3.30-4.30pm lab. S1 | | Wed 3.30-4.30pm lab. S3 | By arrangement | By arrangement |
| **Websites & textbooks:** | [www.sqa.org.uk](http://www.sqa.org.uk) : past papers; exemplar and specimen papers; external assessor reports; understanding standards information  [www.scholar.ac.uk](http://www.scholar.ac.uk): (pupils have login) interactive revision tool with animated explanations, tutorials and assessments. Often used as class homework.  [www.Evans2chemweb.co.uk](http://www.Evans2chemweb.co.uk) : Chemistry revision site and <http://chemnet.rsc.org/home> : offers homework help  [www.mrmackenzie.co.uk](http://www.mrmackenzie.co.uk) : Physics past papers and solutions – older papers than on SQA site  <http://www.brightredbooks.net/subjects> : Revision tests for all science subjects | | | | |
|  | *CfE Higher Biology* by James Torrance; Bright Red Study Guide | *CfE Higher Human Biology* by James Torrance; Bright Red Study Guide | *CfE Higher Chemistry* by  Anderson, Allan, Harris; Bright Red Study Guide | *CfE Higher Physics* by Chambers & Ramsay; Bright Red Study Guide | *CfEHigher Graphic Communication* ( Leckie & Leckie) |

**Science & Technology Faculty**

**S5/6 National Courses**

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|  | **NATIONAL 5**  **BIOLOGY** | **NATIONAL 5**  **PHYSICS** | **NATIONAL 5**  **PRACTICAL WOODWORK** | **NATIONAL 5**  **GRAPHIC COMMUNICATION** |
| Units: | 1. Cell Biology 2. Multicellular Organisms 3. Life on Earth | 1. Dynamics & Space 2. Electricity & Energy 3. Waves & Radiation | 1. Bench skills 1- Flat Frame Construction 2. Bench Skills 2 – Wood Carcase Construction 3. Machining & Finishing | 1. 2D Graphic Communication 2. 3D & Pictorial Graphic Communication |
| Internal Assessment:  (timings approx.) | Test for each unit: knowledge and understanding (Outcome 2.1 )  October, January, March. One re-sit opportunity.  Once during the course:  Investigation skills (Outcome 1); problem solving (Outcome 2.2) | | For each unit, pupils must successfully complete:  Worksheets  Practice joints ) within N5  Model ) tolerances  Assignment: Vanity mirror model | Evidence for achievement of each Unit Assessment Standard is gathered through the course.  Pass required for each unit.  Assignment: 60 marks of final award. Set by SQA. Marked internally. Verified by SQA. |
| **Exam Date:** | **23rd May 2017** | **17th May 2017** | **No external exam** | **10th May 2017** |
| External Assessment: | Exam 2 hours  20 marks multiple choice  60 marks extended answer  Assignment: 20 marks  Written in school;  Marked by SQA | Exam 2 hours  20 marks multiple choice  90 marks extended answer  (scaled to 60)  Assignment: 20 marks  Written in school;  Marked by SQA |  | Exam 1 hour 30 mins  60 marks: Approx. 50:50 split 2D:3D graphics questions - extended and limited answers |
| Study Support: | Tues 3.30-4.30pm lab. S1 | By arrangement | By arrangement | By arrangement |
| Texts & Websites: | [www.sqa.org.uk](http://www.sqa.org.uk) : past papers, external assessor reports  [www.educationscotland.gov.uk](http://www.educationscotland.gov.uk) : “Revision in a Nutshell” parent information  [www.mrmackenzie.co.uk](http://www.mrmackenzie.co.uk) : Physics past papers and solutions – older papers than on SQA site  Some teachers use Edmodo to communicate resources and homework materials. Leckie & Leckie books are useful too.  Bright Red revision guides: <http://www.brightredbooks.net/subjects> | | Seeking practical experience is desirable. | [www.sqa.org.uk](http://www.sqa.org.uk) : past papers, external assessor reports  [www.educationscotland.gov.uk](http://www.educationscotland.gov.uk) : “Revision in a Nutshell” parent information  Leckie & Leckie revision guide. |

**Science & Technology Faculty S5/6 National Courses**

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|  | **NATIONAL 4**  **SKILLS FOR WORK: RURAL SKILLS** |
| Units: | Candidates to begin to develop some of the basic practical skills necessary to work in most of the land-based disciplines - such as agricultural livestock, equine industries, horticulture, landscaping, agricultural crops and animal care. The Course also provides the opportunity to explore the very diverse employment prospects that exist in land-based industries.  There are 3 core units and 2 optional units. Currently St. Joseph’s College is resourced to deliver the plant-based options.   1. Estate Maintenance: An Introduction 2. Land-based Industries: An Introduction 3. Employability Skills for Land-based Industries 4. Crop Production: An Introduction 5. Soft Landscaping: An Introduction |
| Internal Assessment:  (timings approx.) | Assessment in this Course is based mainly on a range of practical activities supported by teacher observation checklists, together with candidate self-assessment checks and log sheets.  Candidates are given opportunities to develop core skills for work:   * Communication * Numeracy * Information Technology * Problem Solving * Working with Others |
| Exam Date/ External Assessment: | **No external assessment** |
| Support: | Candidates are encouraged to gain practical experience.  Many of the course practical tasks provide support and maintenance of the school building. |