

Crieff High School



Senior Phase (S4-S6) Handbook

**Session 2019 – 2020
Information for Parents and Pupils**

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Senior Phase Course Choice Booklet

Introduction

This booklet is designed to give you, pupils and parents/carers, information about the Senior Phase of Curriculum for Excellence and is designed to help you make sensible choices about courses to be studied. Please read it carefully and, where necessary, seek further information and advice from relevant staff including subject specialists and personal support teachers.

Curriculum Levels

There are national levels to describe different stages of learning and progress. For most children the expectation is:

Early Level	Pre-school to the end of P1
First Level	To the end of P4
Second Level	To the end of P7
Third and Fourth Levels	S1 – S3, with the fourth level broadly equivalent to the SCQF framework (see abbreviations section)
Senior Phase: National Qualifications	S4 - S6, and equivalents in other settings, where students can continue to develop the four capacities and achieve qualifications.

What is the Broad General Education and Senior Phase?

The term “Broad General Education” describes the time from age 3 to May of S3. During their “BGE” in Crieff High School pupils undergo a wide range of experiences across all eight curricular areas with some personalisation and choice along subject lines.

In May of S3 pupils begin the Senior Phase of their education which continues, with various exit points, to the end of S6. In the Senior Phase students continue to focus on skills for learning, life and work while moving towards national qualifications and their transition to life beyond school.

How will the Senior Phase be organised in Crieff High School?

In S4 pupils will normally be able to choose six subjects; in S5 pupils will choose at least five subjects. In S6 pupils will choose at least 4 subjects.

In S4 pupils will study at either National 3, National 4 or National 5 levels. National Four is broadly comparable to Standard Grade General Level and Intermediate 1 while National Five is broadly comparable to Standard Grade Credit Level and Int 2.

The course choice forms are designed to allow as much personalisation and choice as possible and should allow pupils to select those subjects that are likely to offer them the greatest possibility of success.

All pupils will study a core curriculum of Religious and Moral Education, Physical Education, Social Education and Personal Support.

The Support for Pupils Staff have a key role in supporting each pupil in making appropriate choices. You are welcome to contact your child's Guidance Teacher to discuss any aspect of the choice process.

The Guidance Team comprises Mrs Fotheringhame, Mrs Antill, Mrs Marchbank, Miss Johnstone, Miss Steele and Mr Kotsis. Mrs Couser and Mr Macluskey, the Year Heads, will be overseeing the process and can also be contacted at the school.

Course choice forms should be returned to your child's Guidance Teacher by the date indicated on the form.

It should be noted that whilst every effort is made to offer a broad range of subjects no guarantee can be given that every class will run. This will depend on an adequate number of pupils enrolling for the course and staff availability.

Glossary of Terms

As with every initiative Curriculum for Excellence brings with it key terms and features – for an explanation of these words please see the glossary at the end of this document.

Timetable for subject choice

January/February	Guidance Interviews with S4/5 pupils. Senior pupils are strongly encouraged to research future pathways (including university, further education and careers), consult the Careers Advisor and seek individual advice from subject and Guidance Teachers prior to this interview. Students should use also database information contained on the PlanIT and Skills Development Scotland websites.
January	Senior phase course booklet issued
January/February	Option choice form sent home for signature.
19 February	Last date for return of Option Forms (S3) Last date for return of Option Forms (S4/S5)– class lists are made up.
29 April	Main SQA examinations start New timetable starts for new S3, S4 New S5/6 timetable starts after study leave finishes
August	Adjustment to courses as necessary following of SQA examination results.

The Senior Phase Curriculum

The curriculum for pupils in Crieff High School is continually being adapted and developed to help pupils realise their potential and to benefit from developments taking place nationally. Our curriculum is shaped by the need to deliver opportunities for our pupils to develop the following:

knowledge and understanding

skills

respect

participation

a sense of community

partnership

achievement

opportunity

enterprise

In the senior phase, in response to the growing maturity of the pupils, there is:

- an expectation of high levels of achievement based on previous years' progress
- more opportunities to become involved in the community
- more opportunities to develop a leadership role in the life of the school
- a framework which continues to direct and support
- in S6 only, a greater degree of responsibility in managing 'non-contact' time

It is a distinctive and special feature of school education for young people 16-18 that there is involvement in the wider school community, not just in the classroom. In recognition of this the curriculum in Crieff High School contains

- a compulsory core, involving key aspects of personal and social development
- a choice of personal development activities
- a choice of courses at different levels
- opportunities, as appropriate, for involvement in open learning situations

The Core Curriculum

All pupils in the senior phase are expected to follow a core curriculum which includes elements of Personal and Social Education (PSE), Physical Education, Religious Education as well as other wider achievement opportunities.

This will provide young people further opportunities to develop as:

- effective contributors
- successful learners
- responsible citizens
- confident individuals

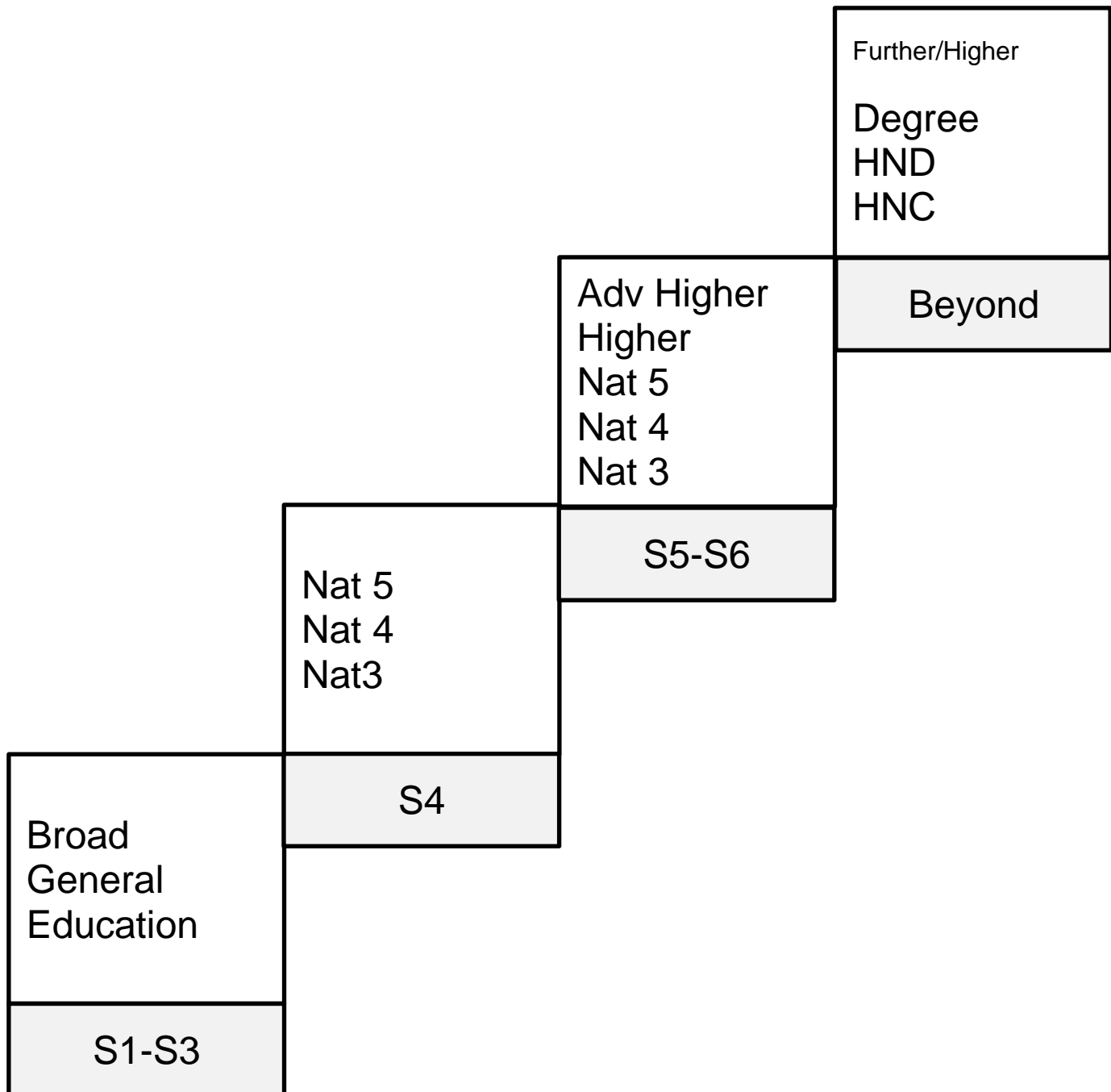
As part of this programme it is expected that all S5 pupils will complete a CV and personal statement and Guidance staff will continue to play a key role in assisting pupils to realise their potential. Guidance Teachers will continue to work with pupils on their personal statement which recognises personal goals and achievements as well as academic ones.

All S5 pupils will take part in a mock interview. They will also attend the 'Safe Drive/Stay Alive' presentation in Perth.

All S6 pupils are expected to take part in Holocaust Studies

National Qualifications Framework

The National Qualifications Framework involves four main types or level of course available in Senior school- National 4, National 5, Higher and Advanced Higher. At each level, internal and/or external assessment will require to be undertaken. Guidance Staff will inform pupils of the National Qualifications framework through the Social Education programme.



Options in the Curriculum

As outlined on the previous page, there is considerable scope for discussion, negotiation and choice within the curriculum. Arrangements for choice are covered in the next section of this booklet called "Making Your Choice".

- **ADVANCED HIGHER** (only open to pupils who have previously succeeded at Higher in a subject)

These courses are generally seen as a stepping stone to studying a particular subject in Higher education. Methods used and timetable allocation encourage the development of more independent study techniques as a preparation for degree level courses.

- **Higher Grade courses**

Higher passes are the most widely accepted currency of educational achievement in Scotland. Universities, colleges, employers and training organisations mostly require Higher passes at A, B or C for admission. Often they are not looking for particular "bits" of knowledge, but evidence that a student can work at a certain academic level. Consequently, Higher passes in particular subjects are not always specified and students should therefore always check carefully the exact requirements in relation to their intended "next step".

Taken over one year, Highers are very demanding courses with considerable implications for home study. The descriptors in this booklet identify the minimum home study requirements. The required entry levels are also success (or failure) and a comparison with national data.

identified; these are based on the experience of teachers, evidence of past Since Highers are the most important qualification for entry to Higher education and employment, students may be tempted to select a Higher from each subject column, making five Highers in all. For some students this will be appropriate, for others not. Entry levels for individual subjects do not give an adequate overall picture – five or six 'C' passes at National 5 are unlikely to be sufficient at Higher where more sustained effective homework is essential.

The Support for Pupils staff are available to discuss any questions or concerns you may have.

- **National 5 Courses**

- can act as preparation for Higher level courses
- are acceptable entry qualifications for many courses in Further Education and in many careers
- can help to develop core skills, for employment or education

- **National 4 Courses**

- can act as preparation for National 5
- are acceptable entry qualifications for many courses in Further Education and in many careers
- can help to develop core skills, for employment or education

They are assessed internally through course work and there is no final exam. Further detail is contained in subject descriptors.

- **Skills for Work Courses**

Skills for Work Courses are vocational courses offered by the SQA.

These courses are practical based with an emphasis on employability skills. They are assessed internally through course work and there is no final exam.

These courses prepare pupils for the world of work or college.

For some pupils a mixture of Skills for Work and Intermediate courses will be the most appropriate mix.

- **National Progression Awards (NPA)**

Available from SCQF Levels 3-6. These awards are administered by the SQA but are internally assessed on project-based learning. Therefore there is no final exam.

- **UHI Perth College**

A variety of courses are available delivered by UHI (Perth College). Some of these are delivered on campus but the majority involve pupils travelling to Perth for one afternoon or for a morning and afternoon each week. These courses are most suitable for S6 pupils and some S5 pupils. Applications should be made through Guidance staff.

For some pupils, a mixture of different level courses will be the most appropriate option.

All courses are certified by the Scottish Qualifications Authority.

- **Wider Achievement / Employability Awards**

There a number of awards that will be considered once pupils are identified. We will endeavour to match the pupils to an appropriate award where possible.

Making your choice

Young people aged 15, 16 or 17 often have a variety of aims and ideas as to what they wish to do in school and beyond. Some of this will be dictated by entry qualifications for college or university courses but this is not the whole story.

One of the first essentials for success in a career or in Higher Education is that the young person has personal skills such as – adaptability, good teamwork, perseverance, good work and study habits, consideration and punctuality. On its own a narrow classroom based curriculum cannot deliver these qualities – they come from participating in the school and its community. To assist with ensuring an appropriate balance in choice, the school operates the following structure:

For the majority of those returning to school at the end of S4, course choices should be considered as a two year experience.

For S5 Pupils

S5 students will be expected to follow a full curriculum. By negotiation with their Guidance Teacher, and subject to the approval of the Headteacher, a young person may wish for a particular aspect of agreed community or school service to be undertaken during the term. Some S5 pupils, particularly those who intend to leave at Christmas of S5, may negotiate a community placement or extended work placement for part of the time, subject to the approval of the Year Head.

In making up the full week, students should pay close attention to the advice given by Guidance, Subject Teachers and their Year Head.

For S6 Pupils

Those students taking Advanced Higher courses may negotiate additional study time in the Department involved or the opportunity to study elsewhere in the school. Developing good habits of time management and commitment to private study is one of the requirements of success in Advanced Higher courses.

All S6 pupils may, in negotiation with their Year Head, choose to allocate a study column. This is partly to encourage the good habits necessary for further study beyond school and partly in recognition of the importance of their involvement with the community.

Pupils in S6 who do not use their time responsibly will be invited to leave school or to pursue a more purposeful course elsewhere. It is neither in the school's nor the pupil's interest that they should squander their time and opportunities in S6.

All time not allocated to classes must be committed on the option form or on their timetable.

Winter Leaver Options

Are you a winter leaver?

If you are 16 between 1 March and 30 September 2017 you can leave school after 31 May 2017. However you are a winter leaver if you are 16 between 1 October 2017 and the last day of February 2018. If your 16th birthday falls between these dates you cannot leave school until the start of the 2017 Christmas holidays.

If you are a winter leaver you can choose to stay on at school or you can consider one of the options below.

Full-time Courses at Perth College

If you know that you would like to continue your learning at Perth College, and know the subject you would like to study, the college will accept applications for full-time courses starting in August 2017. These courses run beyond Christmas 2017.

Next Steps 2 Learning at Perth College

If you know you would like to continue your learning at Perth College but are unsure of what route to follow, Perth College offers the Next Steps 2 Learning course for people who have either just left school, or have been unemployed for a while, or are winter leavers. This course allows you to try out a variety of different areas within the College – from Construction to Childcare, Horticulture to Hospitality and Music to Motor Vehicle. You will also study core skills in IT, Numeracy and Communication, as well as develop a better understanding of the demands and responsibilities of preparing for either further study or possible work opportunities. You will also have the opportunity to go on work experience in an area you are interested in. This course runs until June 2018. Upon completion, you may wish to move on to further full-time courses in September 2018.

Directions

If you are you unsure whether your next step should be employment or college then Directions may be the right choice for you. Running from August to December, it offers you the opportunity to take your next steps through a variety of qualifications and experiences. For example you will participate in a team building residential, learn coaching skills, study for a first-aid certificate, run a small business enterprise project; and work on life skills such as cooking, handling your money and job searching. A work placement will also be part of this course. After Directions you will be supported into your next steps in January: options then include Get Ready for Work, a modern apprenticeship or other training, or employment. If you are not ready for one of these, an Activity Agreement may be a good next step. An Activity Agreement is a personalised programme that builds employability and personal skills: a good example is the LINC programme.

For more details about these options including how you apply, contact your guidance teacher or your careers adviser.

Crieff High School- Senior Phase Course Choice 2019-20

Name: _____ Class _____

Advanced Higher	Chemistry History Graphic Communication French Drama	Maths Design and Manufacture English	Biology Geography Art and Design Mod Studs	Physics Music RMPS	PE Computing Science	All Senior Phase Pupils will follow a core programme of PE, Personal Support PSE, Lifeskills and RME
Higher	English Graphic Communication NPA Digital Creativity Modern Studies Drama	Early Education and Childcare (S6 Only) Biology English Mathematics Design and Manufacture NPA Games Dev	Geography RMPS PE Art and Design Mathematics French Spanish Chemistry	Computing Science History Modern Studies Music Performing Physics Biology	Chemistry Physics History Mathematics Sociology	Pupils will have opportunities in Outdoor Learning Work Experience Community Sports Leaders Personal Finance Employability Working with Others Creative Industries Mobile App Development etc
Nat 3-5	Biology Chemistry Physics SfW Laboratory Skills Science N3-4 NPA Digital Creativity SfW Travel and Tourism Modern Studies N5 English SfW Sport and Recreation N4 /N5(S5/6 Only)	Computing Science Geography History People and Society N3-4 N5 English N4 English Applications of Mathematics N5(S5/6 only) Hospitality N5 NPA Games Dev NPA Cyber Security N5 NPA Enterprise NPA Play and Childcare	Drama Design and Manufacture Spanish French PE Modern Studies Practical Woodwork N5 English N4 English Physics	Biology History N5English Graphic Communication Design and Manufacture Media Art and Design RMPS SfW Rural Skills Cake Decorating (S5/6 only)	PE Chemistry Music Performing Art and Design Mathematics N5 (S5 and 6 only) N4 Early Education and Childcare N5 English SfW Retailing (N5)	N4 Hairdressing

1. All S4 pupils will also study Mathematic or Application of Mathematics at N3-N5 level
2. All S4 pupils must choose English N3-N5 level. Not every level will be available in every column.
3. Courses will only run if there is sufficient uptake and staffing.
4. NPA Courses marked in red in column B will be delivered at school by a combination of Distance Learning and input from UHI Perth College Staff

5. S5 Pupils completing a Foundation Apprenticeship will choose four subjects at school and attend college every Friday
6. Please see the UHI Prospectus for other UHI Perth College Courses. Pupils will be required to attend college to complete these courses- usually for a morning and a different afternoon each week. This will impact on their school timetable.

Please circle **one choice** in **each of the five columns** and return this form-properly signed to your Guidance Teacher by the **19th February** at the latest.

Pupil Signature _____
Date _____

Parental Signature _____
Date _____

Glossary

The Four Capacities

The curriculum aims for all children to become:

- Successful Learners
- Confident Individuals
- Responsible Citizens
- Effective Contributors

The Seven Principles of Curriculum Design

All learning must take account of these principles:

- Challenge and enjoyment
- Breadth
- Progression
- Depth
- Personalisation and choice
- Coherence
- Relevance

The Four Contexts for Learning

Curricular areas and subjects

Ethos and life of the school as a community

Interdisciplinary learning

Opportunities for personal learning

The Eight Curriculum Areas

- **Expressive Arts**

Art and design, dance, drama and music.

- **Health and Wellbeing**

Mental, emotional, social and physical wellbeing, PE, food and health, substance misuse and relationships, sexual health and parenthood.

- **Languages**

Listening and talking, reading and writing in literacy and English and modern languages, plus classical languages and literacy and Gàidhlig/Gaelic learners (where available).

- **Mathematics**

Including analysing information, solving problems and assessing risk.

- **Religious and Moral Education**

Learning about Christianity, other world religions, and developing values and beliefs.

- **Sciences**

Understanding important scientific concepts across planet Earth, forces, electricity and waves, biological systems, materials and topical science.

- **Social Studies** – understanding people, place and society in the past and present including history, geography, modern studies and business education.

- **Technologies**

Including computing science, food, textiles, craft, design, engineering, graphics and applied technologies

In addition there are three key areas which are covered by all teachers/practitioners:

- **Literacy across learning**

Talking, listening, reading and writing (including using digital communications).

- **Numeracy across learning**

Including money, time, and measurement.

- **Health and Wellbeing across learning**

Including making informed choices for a healthy lifestyle

Important themes across the curriculum are creativity, enterprise and global citizenship, which includes sustainable development, international education and citizenship.

Experiences and Outcomes

Each curriculum area is broken down to a set of experiences and outcomes (often referred to as the 'Es and Os'):

- **Experience** – this describes the learning which takes place.
- **Outcome** – what the learning will achieve. This is often explained, from the pupil's perspective, as an 'I can' statement.

Entitlements

All young people are entitled to:

- **A coherent curriculum** – smooth progression through the experiences and outcomes.
- **A broad general education** – the period from age 3 to the end of S3, covering all of the experiences and outcomes across all curriculum areas up to and including the third level, and further experiences and outcomes at the fourth level, chosen to provide greater specialisation and depth.
- **Support** – assistance to help learners access the curriculum, for example because of short- or longer-term needs or circumstances, and help to build resilience.
- **Skills for learning, life and work** – to develop pre-vocational, enterprising and employability skills, personal skills, high levels of cognitive skills and the opportunity to put learning into a practical context.
- **A senior phase** – to prepare for qualifications and develop skills for future learning, life and work.

- **Positive destinations** – to support young people to move successfully on to work or further study.

Assessment

Key phrases that could be used in reporting are:

- **Developing** – where the learner is working to acquire skills or knowledge
- **Consolidating** – where the learner is building competence and confidence in using the skills or knowledge.
- **Applying** – where the learner is able to apply the skills or knowledge confidently in more complex or new situations.

Abbreviations that you may also see or hear:

ASN – Additional Support Needs

ASL – Additional Support for Learning –
See www.enquire.org.uk

GIRFEC – Getting it right for every child – the Government's plan to improve the lives of children

DoYW – Developing our Young Workforce- a range of strategies across a number of sectors and providers to ensure that young people are properly equipped for the world of work

NIF- National Improvement Framework- Government Policy to ensure that school`s focus on the twin objectives of Excellence and Equity.

SCQF – Scottish Credit and Qualifications Framework
www.scqf.org.uk

SQA – Scottish Qualifications Authority – www.sqa.org.uk

Department: Computing
Principal Teacher: Mr Tennant

Computing Science

National 4/5, Higher and Advanced Higher

Develops

- Skills and knowledge in analysis, design, implementation and testing of a range of digital solutions
- Computational thinking; which is the ability to think about and describe any process in a way that can easily be stored in and carried out by an information processing system such as a computer.
- Knowledge and understanding of key facts and ideas in Computing Science that give a deeper understanding of how most digital technology works.
- Ability to communicate computing concepts clearly using appropriate technical terms.
- Understanding of the impact of Computing Science in changing and influencing our environment and society.

Appropriate For

Everyone, as we now live in a digital world but particularly those considering a career in:

- Computing- Information Technology, Web Design, Networking, Robotics, Artificial Intelligence, Human Computer Interaction, Assistive Technologies;
- Law enforcement and Forensics;
- Medical Research and development of new treatments, gene sequencing and DNA analysis;
- Scientific Research and Mathematics;
- Social Science Research and Public Policy;
- Digital Media, Special Effects and Games Development;
- Telecommunications;
- Engineering- particularly Electrical, Mechanical and Mechatronics;
- Government and Civil Service;
- ❖ New Business Startups.

Homework

Depending on level of study homework exercises will be set on a weekly or fortnightly basis and can include completion of classwork, practice of technical terms, and consolidation questions and answers. Pupils are also expected to revise work covered in class on a regular basis.

N 4 & 5 Course Entry

Studied in S2/3	National 4	National 5
Technologies	Passed National 3 Computing	Passed National 4 Computing

with a Focus on Computing	Science in 4 th or 5 th year or previously studied Computing in S2/3 working at or beyond level 3.	Science in 4 th or 5 th year or previously studied Computing in S2/3 working at or beyond level 4.
Other Technologies or Science Subjects	No restrictions	Pupils will need to demonstrate they can work at level 4 or National 5 in Maths and other Science or Technology subjects

N4 & 5 Course Structure and Unit Assessment Details

National 4 Computing Science Graded Pass or Fail

National 5 Computing Science Graded A-D/ Fail

SOFTWARE DESIGN AND DEVELOPMENT

2 outcomes with small tasks to test ability to

- 1. Explain how simple programs work, drawing on understanding of basic concepts in software development**
- 2. Develop short programs using a software development environment**

INFORMATION SYSTEMS DESIGN AND DEVELOPMENT

2 outcomes with small tasks to test ability to

- 1. Develop simple information systems, using appropriate development tools**
- 2. Consider a number of basic factors involved in the design and implementation of an information system**

ADDED VALUE

SQA Provided Controlled Assessment
Problem solving scenario to create two different digital solutions using skills and knowledge developed in the Software and Information Design and Development units.

Internally marked as pass or fail by the teacher.

SOFTWARE DESIGN AND DEVELOPMENT

Pupils learn how to design software then create it in modern programming environments such as Visual Studio. Pupils learn how to read, debug and develop algorithms for solving problems.

COMPUTER SYSTEMS

Pupils develop skills and knowledge in computer hardware, software and data representation.

WEB DESIGN AND DEVELOPMENT

Pupils develop practical skills and theoretical understanding of web development including HTML, CSS, JavaScript and SQL.

DATABASE DESIGN AND DEVELOPMENT

Pupils study the design of structured databases that lie behind modern web applications, social media platforms and Information Systems.

ADDED VALUE

SQA Provided Coursework (31%).

Problem solving scenario to create a range of different digital solutions using skills and knowledge developed in the four main topics.

Externally marked and graded by the SQA.

External exam (69%)

100% Internally assessed

Further Details- Higher and Advanced Higher Computing Science

Higher & Advanced Higher Course Entry

Studied in S4 or S5	Higher	Advanced Higher
N5 or Higher Computing Science	Passed National 5 Computing Science	Passed Higher Computing Science
Other Technologies or Science Subjects	Pupils will need to demonstrate good attainment in other Highers and a commitment to undertake some additional programming practice. N5 Mathematics would be expected as a minimum.	No entry to Advanced Higher Computing Science is possible without having first studied and passed Higher Computing Science.

Course Structure and Unit Assessment Details

Higher Computing Science Graded A-D/ Fail	Advanced higher Computing Science Graded A-D / Fail
<p><i>SOFTWARE DESIGN AND DEVELOPMENT</i></p> <ol style="list-style-type: none"> 1. Explain how programs work, drawing on an understanding of advanced concepts in software development and computer architecture 2. Develop modular programs using one or more software development environments 	<p><i>SOFTWARE DESIGN AND DEVELOPMENT</i></p> <ol style="list-style-type: none"> 1. Analyse and Design complex programs to solve a range of problems. 2. Develop modular programs and complex algorithms in a range of development environments.
<p><i>COMPUTER SYSTEMS</i></p> <ol style="list-style-type: none"> 1. Develop an understanding of computer operations, hardware and software issues. 2. Describe environmental and security implications of technology. 	<p><i>COMPUTER SYSTEMS</i></p> <ol style="list-style-type: none"> 1. Understand low-level operations of a computer. 2. Develop awareness of security risks and environmental impacts.
<p><i>WEB DESIGN AND DEVELOPMENT</i></p> <ol style="list-style-type: none"> 1. Develop website using HTML, CSS, PHP, and Javascript 2. Consider the factors involved in the design and implementation of websites. 	<p><i>WEB DESIGN AND DEVELOPMENT</i></p> <ol style="list-style-type: none"> 1. Develop knowledge of HTML, CSS, PHP, and Javascript for complex websites. 2. Consider planning and resource requirements for large-scale implementation of web technologies.
<p><i>DATABASE DESIGN AND DEVELOPMENT</i></p> <ol style="list-style-type: none"> 1. Design, build and test relational databases that underpin modern software and 	<p><i>DATABASE DESIGN AND DEVELOPMENT</i></p> <ol style="list-style-type: none"> 1. Design, build and test complex relational databases. 2. Create and maintain online

- websites such as social media.
2. Create, update and query databases using SQL.
 3. Link data to dynamic web applications.

databases using SQL that support interactive websites.

ADDED VALUE

SQA Coursework (31%).

Problem solving scenario to create a range of different digital solutions using skills and knowledge developed in the other four units.

Externally marked and graded by the SQA.

External exam (69%)

ADDED VALUE (TBC FOR 2019-20)

Pupil selected project that meets appropriate SQA guidelines (50%)

Problem solving scenario to create a range of different digital solutions using skills and knowledge developed in the other four units.

Externally marked and graded by the SQA
External exam (50%)

Digital Creativity (NPA Levels 4,5 & 6)

Develops

Understanding of:

- How multimedia skills are used in industry;
- how media is stored and processed on a computer system;
- how different settings affect the overall quality and size of a media file.

Ability to:

- produce and edit digital images;
- produce and edit sound recordings;
- produce and edit video recordings;
- work as part of a team to produce the media required;
- plan and organise the creation of different types of media;
- communicate and share their ideas with other members of the class online and face to face.

Appropriate For

Anyone who is considering working in a creative profession that uses digital tools to create most of their content such as:

- special effects companies;
- web designers;
- digital photographers;
- print specialists;
- illustrators;
- video editors;
- animators;

also pupils who would like to expand the range of techniques they can use to present ideas and information in.

Course Entry

Entry is open to any pupil and level of award (4 which is equivalent to National 4, 5 which is equivalent to National 5 and 6 which is equivalent to Higher) will be based on the effort and quality of the work produced during the year.

Anyone aiming to study Level 6 should be aware that much of the theory content is the equivalent of Higher, so previous study of Digital Media, Media Studies or Graphic Communication at N5/Level 5 would be expected.

Homework

Homework exercises will be set on a fortnightly basis and will include ideas generation, planning and media capture and editing work. Pupils will also maintain a regular digital portfolio discussing their work and how they've applied their new digital media skills.

Course Structure and Unit Assessment Details

Level 4 Graded Pass /Fail	Level 5 Graded Pass /Fail	Level 6 Graded Pass /Fail
<p><i>DIGITAL MEDIA: STILL IMAGES ACQUISITION</i></p> <p>4 outcomes with small tasks to test ability to</p> <ol style="list-style-type: none"> 1. Identify hardware, file formats and software used in digital still image acquisition. 2. Plan the acquisition of digital still images for a specified brief. 3. Acquire and store digital still images for a specified brief. 4. Prepare and present images to a specified brief. 	<p><i>DIGITAL MEDIA: STILL IMAGES EDITING</i></p> <p>4 outcomes with small tasks to test ability to</p> <ol style="list-style-type: none"> 1. Identify and plan the acquisition of digital still images to meet the requirements of the brief. 2. Undertake the acquisition of digital still images for a specified brief. 3. Select, edit and present a portfolio of digital images in a format appropriate to a specified brief. 4. Evaluate the completed portfolio of digital images and personal contribution to meeting a specified brief. 	<p><i>DIGITAL MEDIA: STILL IMAGES</i></p> <p>4 outcomes with small tasks to test ability to</p> <ol style="list-style-type: none"> 1. Identify and plan the creation and acquisition of still images for a project. 2. Acquire images that meet the project brief. 3. Organise, edit and store digital images to create the solution to the project. 4. Evaluate the images against the project brief. <p><i>Although similar to the outcomes at level 4 and 5, level 6 requires in-depth answers typical of a higher candidate.</i></p>
<p><i>DIGITAL MEDIA: AUDIO ACQUISITION</i></p> <p>4 outcomes with small tasks to test ability to</p> <ol style="list-style-type: none"> 1. Identify the key concepts involved in the capture, conversion and storage of digital audio. 2. Plan the acquisition of digital audio for a specified brief. 3. Acquire and store digital audio for a specified brief. 4. Prepare and present digital audio to a specified brief. 	<p><i>DIGITAL MEDIA: AUDIO EDITING</i></p> <p>5 outcomes with small tasks to test ability to</p> <ol style="list-style-type: none"> 1. Demonstrate knowledge of the properties of audio and audio effects. 2. Identify and plan the acquisition of digital audio for a specified brief. 3. Perform the acquisition of digital audio for a specified brief. 4. Manipulate and store the acquired digital audio to the form required by a specified brief. 5. Evaluate finished product and own 	<p><i>DIGITAL MEDIA: AUDIO EDITING</i></p> <p>4 outcomes with small tasks to test ability to</p> <ol style="list-style-type: none"> 1. Communicate in-depth knowledge and understanding of digital audio recording. 2. Interpret a project brief and plan the acquisition and editing of audio assets. 3. Editing of digital audio to meet the needs of the specification. 4. Evaluate the finished recording project and identify strengths and weaknesses.

performance in meeting the requirements of a specified brief.

DIGITAL MEDIA: VIDEO ACQUISITION

4 outcomes with small tasks to test ability to

1. Identify basic components of digital video acquisition.
2. Script and plan the safe acquisition of a digital video sequence that is free from copyright restrictions.
3. Undertake the acquisition of digital video material for a specified brief.
4. Edit and present a finished video sequence in a format required by the specified brief.

DIGITAL MEDIA: VIDEO EDITING

4 outcomes with small tasks to test ability to

1. Describe hardware and software requirements for digital video acquisition and editing.
2. Plan the safe acquisition of digital video content that recognises copyright for a specified brief.
3. Acquire digital video content for a specified brief.
4. Edit acquired digital video content and present a digital video narrative in a format appropriate to the specified brief.

DIGITAL MEDIA: VIDEO EDITING

3 outcomes with small tasks to test ability to

1. Interpret a project brief and plan a range of digital video recordings using various hardware and techniques
2. Acquire and carry out editing of the video clips to create a finished project.
3. Evaluate the recording against the original brief.

All units consist of a theory test and a practical project. These are internally assessed by the class teacher and externally verified by the SQA

Completing all three units will lead to an SQA certificate for NPA Digital Media at level 4 or 5, or NPA Digital Media Production at level 6.

NPA Cyber Security Level 5

Develops

Understanding of:

- Data security principles;
- Digital forensics used by law enforcement;
- Ethical hacking in the security industry.

Ability to:

- identify security weakness safely, legally and ethically;
- protect your personal data and devices;
- understand how to test hacking techniques in a controlled environment;
- protect yourself and others from online threats;
- contribute to safe practice in online communities;
- develop understanding of legal issues in cyber security;
- understand how law enforcement can use technology in crime detection.

Appropriate For

Anyone who is interested in the fields of cyber security, digital forensics and personal online safety, and may consider further study or careers in this area, such as:

- Information Security advisors;
- Police & Related Law Enforcement staff;
- Computer Network managers;
- Online commerce;
- Anyone working in an IT context in Businesses.

As the course develops a high degree of awareness of cyber threats is it suited to any pupil who wishes to help protect themselves, their friends and their families from online crime.

Course Entry

Entry is open to any pupil from S4 upwards with an interest in areas of Cyber Security, online safety, legal issues around hacking/penetration testing.

Students studying this course must demonstrate that they are working at National 5 level (or have obtained this previously) in Maths or Computing Science, due to the complex mathematical nature of cryptography.

Homework

Homework exercises will be set on a weekly basis and will include background research, analysis of home cyber security and familiarisation with the Linux Operating System. Pupils will also maintain a regular digital portfolio with evidence of their studies which will form part of their assessment.

Course Structure and Unit Assessment Details

Level 5

Graded Pass /Fail

CYBER SECURITY: DATA SECURITY

3 outcomes with practical and theory tasks to test ability to:

1. Describe the legal and ethical obligations around storing and sharing personal and business data;
2. Explain the causes and effects of data security breaches;
3. Protect data against security breaches.

CYBER SECURITY: DIGITAL FORENSICS

3 outcomes with practical and theory tasks to test ability to:

1. Explain the digital forensics process;
2. Apply relevant techniques in acquiring data;
3. Examine digital evidence.

CYBER SECURITY: ETHICAL HACKING

3 outcomes with practical and theory tasks to test ability to:

1. Describe current tools and techniques used by ethical and malicious hackers to compromise computer systems;
2. Explain current legislation relating to computer crime and hacking;
3. Perform a routine penetration test on a computer system within a controlled environment.

All practical work is internally assessed by the class teacher and externally verified by the SQA.

Theory tests are done on the SQA's online testing system.

Completing and passing all three units will lead to an SQA certificate for NPA Cyber Security at Level 5.

NPA Games Development Levels 4,5 & 6

Develops

Understanding of:

- Different genres of game and the design process behind them;
- How to source and create different media assets for a game;
- How to develop games using a programming environment.

Ability to:

- Develop your skills in computer programming;
- Develop your computational thinking skills;
- Create a wide range of specialist media assets;
- Understand the development of computer games, including current trends;
- Critically analyse computer games and related media;
- Compare and evaluate different gaming hardware platforms.

Appropriate For

Anyone who is interested in the technical aspects of developing computer games and who may consider a career in the Games or digital media industries:

- Games designers;
- Software developers;
- Software testers;
- Creative industries;
- Digital Media authors;
- Hardware developers;
- App developers;

and also anyone interested in computer games as a form of entertainment who wishes to know more about how they are produced.

Course Entry

Entry is open to any pupil from S4 upwards who is interested in the area of games development, coding and digital content creation.

There are no minimum entry requirements but previous study of Computing Science in S2-3 and a good grasp of Maths/numeracy would be an advantage to understand the coding aspects of the course.

Homework

Homework exercises will be set on a fortnightly basis and will include ideas generation, planning of games and resources, research and investigation work.

Pupils will also maintain a regular digital portfolio of their development work and how they've applied their new games development skills.

Course Structure and Unit Assessment Details

Level 4 Graded Pass /Fail	Level 5 Graded Pass /Fail	Level 6 Graded Pass /Fail
<p><i>COMPUTER GAMES: DESIGN</i></p> <p>3 outcomes with tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Identify elements of game design. 2. Create proposals for new simple computer games. 3. Produce a design document for a simple computer game. 	<p><i>COMPUTER GAMES: DESIGN</i></p> <p>3 outcomes with tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Describe elements of game design. 2. Create proposals for new computer games. 3. Produce a detailed design document for a computer game. 	<p><i>COMPUTER GAMES: DESIGN</i></p> <p>3 outcomes with tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Review computer games. 2. Create proposals for new computer games. 3. Plan the production of a computer game.
<p><i>COMPUTER GAMES: MEDIA ASSETS</i></p> <p>3 outcomes with tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Identify sources of media assets. 2. Plan the production of assets for a simple computer game. 3. Produce media assets for a simple computer game. 	<p><i>COMPUTER GAMES: MEDIA ASSETS</i></p> <p>3 outcomes with tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Describe sources of media assets. 2. Plan the production of assets for a computer game. 3. Produce media assets for a computer game. 	<p><i>COMPUTER GAMES: MEDIA ASSETS</i></p> <p>3 outcomes with tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Explain sources of media assets. 2. Plan the production of assets for a complex computer game. 3. Produce media assets for a complex computer game.
<p><i>COMPUTER GAMES: DEVELOPMENT</i></p> <p>3 outcomes with small tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Create a working simple computer game. 2. Test the computer game. 3. Evaluate the computer game. 	<p><i>COMPUTER GAMES: DEVELOPMENT</i></p> <p>3 outcomes with small tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Create a working computer game. 2. Test the computer game. 3. Evaluate the computer game. 	<p><i>COMPUTER GAMES: DEVELOPMENT</i></p> <p>3 outcomes with small tasks to test ability to:</p> <ol style="list-style-type: none"> 1. Create a working complex computer game. 2. Develop and carry out a test strategy for the computer game. 3. Evaluate and review the computer game, justifying changes to the design.

All units consist of a theory test and a practical project. These are internally assessed by the class teacher and externally verified by the SQA

Completing all three units will lead to an SQA certificate for NPA Computer Games Development at level 4, 5 or 6.

Department: Design
Principal Teacher: Miss Arnott

Art and Design National 4/5

Develops

- An ability to communicate personal thoughts, feelings and ideas through the creative use of art and design materials, techniques and/or technology.
- A critical understanding of a range of Art and Design practice.
- An ability to; plan, develop, produce and present creative art and design work
- An ability understand the impact of external factors on artists and designers and their work
- An ability to develop creativity, problem solving, critical thinking and reflective practice skills

Appropriate for

This Course or its components may provide progression to:

- Higher and Advanced Higher Art and Design Courses.
- Employment, apprenticeships and training in Art and Design and related fields.
 .. Further qualifications or careers in Graphics, jewellery, textiles and other related fields

Course entry

STUDIED IN S2/3	NATIONAL 4	NATIONAL 5
YOUR SUBJECT	Pupils should, preferably, be working within Level 3 Art and Design	Pupils should, preferably, be working within Level 4 Art and Design
OTHER SUBJECTS	Please consult the Head of Faculty.	Please consult the Head of Faculty.

Homework

Homework will be set on a regular basis and will include exercises designed encourage pupils to carry out research and development related to the classwork.

Course Structure and Unit Assessment Details

National 4 Graded Pass/Fail	National 5 Although not graded anymore at National 5, the two Units form the bulk of the curriculum.
<i>UNIT 1</i> Art and Design: Expressive Activity (National 4) This Unit helps learners to develop an understanding of the factors that	<i>UNIT 1</i> Art and Design: Expressive Activity(National 5) Evidence will be a combination of practical, written, oral and/or recorded

<p>influence and inspire artists' work. They will also consider how artists use art materials, techniques and/or technology in their work. Learners will research and develop their personal thoughts and ideas in 2D and/or 3D formats in response to given stimuli. They will produce observational drawings and studies and develop their expressive ideas and compositions by experimenting with and using art materials, techniques and/or technology in creative and expressive ways.</p>	<p>evidence. In this Unit, learners will be required to provide evidence of: analysing the things that have influenced and inspired artists and their work using descriptive art vocabulary when describing their own work and the work of other artists producing expressive drawings, studies and investigative research showing understanding of the subject matter using a variety of art materials, techniques and/or technology creatively for expressive effect in their work creative development of compositional ideas and art work in response to stimuli.</p>
<p><i>UNIT 2</i> Art and Design: Design Activity (National 4) This Unit helps learners to plan, research and develop creative design ideas in response to a given brief. Learners will develop their creativity and problem-solving skills as they consider the design opportunities, issues and constraints of the brief. They will develop their understanding of designers' working practices and the factors that inspire and influence their work. They will also experiment with and develop media handling skills when producing their design ideas in 2D and/or 3D formats.</p>	<p><i>UNIT 2</i> Art and Design: Design Activity (National 5) The general aim of this Unit is to develop learners' ability to develop creative research and development ideas in response to a design brief. In this Unit, learners will analyse the impact that social and cultural factors have on designers and their practice. On completion of this Unit, learners will be able to develop and produce creative design ideas in response to a brief and critically reflect on their own work and the work of other designers.</p>
<p><i>ADDED VALUE UNIT</i> <i>GRADED PASS/FAIL</i></p> <p>Outcome 1 Produce a piece of expressive art in response to a theme or stimuli.</p> <p>Outcome 2 Produce a piece of design work in response to a design brief.</p>	<p><i>COURSE ASSESSMENT</i> <i>GRADED A-D/ FAIL</i></p> <p>Course assessment structure Component 1 — portfolio 200 marks Component 2 — question paper 50 marks Total marks 250 marks</p> <p>Component 1 — Portfolio This portfolio has two Sections. 'Expressive Folio' will have 100 marks. 'Design Folio' will have 100 marks.</p> <p>Component 2 — question paper The purpose of this question paper is to assess learners' knowledge and understanding of art and design practice, and their ability to critically analyse and respond to examples of art and</p>

Art and Design Higher:

Please replace entire section on Course structure and Unit assessment details with:

Course Structure

The course has an integrated approach to learning. It combines investigative and practical learning with knowledge and understanding of art and design practice. Candidates develop a range of art and design techniques and complex problem-solving skills.

The course has two areas of study:

Expressive

This part of the course helps candidates to plan, research and develop creative expressive work in response to a theme or stimulus. Candidates develop knowledge and understanding of artists' working practices and the social, cultural and other influences affecting their work and practice. They respond to a theme or stimulus and produce 2D/3D analytical drawings, studies and investigative research. They use these to produce a single line of development and a final piece. Candidates also reflect on and evaluate their creative process and the visual qualities of their work.

Design

This part of the course helps candidates to plan, research and develop creative design work in response to a design brief. Candidates develop knowledge and understanding of designers' working practices and the social, cultural and other influences affecting their work and practice. They respond to a design brief and compile a variety of 2D/3D investigative material and market research. They use these to produce a single line of development and a design solution. Candidates also reflect on and evaluate their design process and the aesthetic and functional qualities of their work.

Course assessment structure:

Question paper

The question paper has a total mark allocation of 60 marks. This is 23% of the overall marks for the course assessment.

Section 1, titled 'Expressive art studies', will have 30 marks.

Section 2, titled 'Design studies', will have 30 marks

Expressive portfolio

The expressive portfolio has a total mark allocation of 100 marks. This is 38.5% of the overall marks for the course assessment.

Design portfolio

The Design portfolio has a total mark allocation of 100 marks. This is 38.5% of the overall marks for the course assessment.

Art and Design – Advanced Higher

Develops

- Pupil's ability to communicate personal thoughts, feelings and ideas through the creative use of art and design materials, techniques and/or technology.
- Pupil's ability to analyse a range of art and design practice and critically reflect on the impact of external factors on artists and designers and their work.
- Pupil's ability to plan, develop, produce and present creative art and design work.
- Personal creativity, using problem solving, critical thinking and reflective practice skills.

Appropriate for

This Course or its components may provide progression to:

- University Art and Design Courses.
- Employment, apprenticeships and training in Art and Design and related fields. .. Further qualifications or careers in Graphics, jewellery, textiles and other related fields

Course Entry

Your subject	Higher grade art and design
Other subjects	At the moment, pupils must meet the above requirements

Homework

Homework will be set on a regular basis and will include exercises designed encourage pupils to carry out research and development related to the classwork.

Course Structure and Unit Assessment Details

There are two courses available;

The *ADVANCED HIGHER – DESIGN QUALIFICATION*

The assessment of the Units in this Course will be as follows.

Art and Design (Design): **Design Studies (Advanced Higher)**

In this Unit, learners will work in a self-directed manner to research and investigate the working practices and design approaches of others. The research and investigation will be based on a personally chosen design area. Learners will critically analyse designers' work and practice, evaluating and reaching substantiated judgements about the work itself and the contexts which influenced the work.

Art and Design (Design): **Design Enquiry (Advanced Higher)**

This Unit helps learners to plan, develop and produce developmental lines of enquiry and creative design work in an independent and self-directed manner. Learners will produce a design brief establishing a personal focus to the enquiry, using their understanding of design practice to inspire and influence their design approach and creative choices. They will analyse the impact of their creative decisions and choices, resolving any design issues or challenges. They will

experiment with using materials, techniques and/or technology where appropriate, to realise their design ideas in 2D and/or 3D formats and independently evaluate their design work and practice.

Structure and coverage of the Course assessment

The Course assessment will consist of one Component, a portfolio. The portfolio will have one Section.

Component 1 — portfolio

The purpose of this portfolio is to assess the learner's ability to integrate and apply practical design skills and in-depth knowledge and understanding of designers and design practice across the Course. Learners will select one or more examples of their earlier investigative and design development work and use this as the basis for developing and producing highly resolved design solution(s).

The portfolio will have 100 marks.

60 marks will be awarded for practical design work, 30 marks for the critical analysis and 10 marks for evaluation.

The *ADVANCED HIGHER – EXPRESSIVE QUALIFICATION*

The assessment of the Units in this Course will be as follows.

Art and Design (Expressive): *Expressive Studies (Advanced Higher)*

In this Unit, evidence is required to show that the learner can research and investigate an art area of personal interest. They will plan the investigation, analysing examples of art work and practice within a chosen area of art. They will express substantiated personal judgements about art work and the contexts which influenced the work.

Art and Design (Expressive): *Expressive Enquiry (Advanced Higher)*

In this Unit, evidence is required to show that the learner can plan and carry out a personal art enquiry. Learners will select expressive stimuli and produce initial investigative drawings and studies before developing and refining developmental ideas for art work for the enquiry. They will also analyse their creative choices and decisions and independently evaluate their art work and practice.

Structure and coverage of the Course assessment

The Course assessment will consist of one Component, a portfolio. The portfolio will have one Section.

Component 1 — portfolio

The purpose of this portfolio is to assess the learner's ability to integrate and apply practical art skills and in-depth knowledge and understanding of expressive art practice across the Course. Learners will select one or more examples of their earlier expressive investigative and development work and use this as a basis for developing and producing pieces of highly resolved expressive art work.

The portfolio will have 100 marks.

60 marks will be awarded for practical expressive art work, 30 marks for the critical analysis and 10 marks for evaluation.

Design and Manufacture National 4/5

Develops

- Skills in design and manufacturing models, prototypes and products.
- Knowledge and understanding of manufacturing processes and materials.
- An understanding of the impact of design and manufacturing technologies on our environment and society.

Appropriate for

This Course or its components may provide progression to:

- Higher and Advanced Higher Design and Manufacture Course, other Technological Courses at Higher.
- Employment, apprenticeships and/or training in design and/or manufacturing related fields.
- Further qualifications or careers in Product Design or Production Design.

Course entry

STUDIED IN S2/3	NATIONAL 4	NATIONAL 5
YOUR SUBJECT	Pupils should, preferably, be working within Level 3 Design and Manufacturer other Technologies.	Pupils should, preferably, be working within Level 4 Design and Manufacture or other Technologies.
OTHER SUBJECTS	Please consult the Head of Faculty.	Please consult the Head of Faculty.

Homework

Homework will be set on a regular basis and will include exercises designed to consolidate the Knowledge and Understanding elements of the course. It will also allow pupils to further experience the Design element of the course.

Course Structure and Assessment Details

National 4 Graded Pass/Fail	National 5 Although not graded anymore at National 5, the two Units form the bulk of the curriculum.
<i>UNIT 1</i> Design and Manufacture: Design (National 4) This Unit covers the product design process from brief to resolved design proposals, including a specification. It helps learners develop skills in initiating, developing, articulating and communicating simple design proposals. It allows them to develop an appreciation of the design/make/test process and the importance of evaluating and resolving	<i>UNIT 1</i> Design and Manufacture: Design (National 5) This Unit covers the product design process from brief to resolved design proposals, including specification. It helps learners develop skills in initiating, developing, articulating and communicating design proposals. It allows them to develop an appreciation of the design/make/test process and the importance of evaluating and resolving design proposals on an on-going basis.

work on an on-going basis.	
<p><i>UNIT 2</i></p> <p>Design and Manufacture: Materials and Manufacturing (National 4)</p> <p>This Unit covers the product design process from design proposals to prototype and product. It allows learners to 'close the design loop' by manufacturing their design ideas. It allows learners to develop practical skills that are invaluable in the design/make/test process.</p>	<p><i>UNIT 2</i></p> <p>Design and Manufacture: Materials and Manufacturing (National 5)</p> <p>This Unit covers the product design process from design proposals to prototype or product. It helps learners to 'close the design loop' by manufacturing their design ideas. It allows learners to develop practical skills that are invaluable in the design/make/test process.</p>
<p><i>ADDED VALUE</i></p> <p><i>GRADED PASS/FAIL</i></p> <p>The assessment method for this Unit will be an assignment in which the learner will draw on their range of design knowledge and skills, and knowledge of materials and manufacturing, and apply their practical skills, in order to produce an effective overall response to a brief.</p> <p>Evidence should include:</p> <ul style="list-style-type: none"> • The completed design folio including and evaluation. • A manufactured prototype. 	<p><i>ADDED VALUE</i></p> <p><i>GRADED A-D/ FAIL</i></p> <p>Course assessment structure</p> <p>Component 1 — assignment 100 marks Component 2 — question Paper 80 marks Total marks 180 marks</p> <p>Component 1 — assignment</p> <p>The Design Assignment will assess two areas:</p> <p>Design skills Candidates will produce a folio. 55 marks.</p> <p>Practical skills Candidates will produce a prototype in order to evaluate their solution to the Design Assignment task. 45 marks.</p> <p>Component 2 — question paper</p> <p>This question paper will give learners an opportunity to demonstrate their knowledge and understanding. 80 marks.</p>

Design and Manufacture Higher:

Please replace entire section on Course structure and Unit assessment details with:

Course Structure

The course has two areas of study:

Design

Candidates study the design process from brief to design proposal. This helps them to develop skills in initiating, developing, articulating and communicating design proposals. Candidates explore and refine design proposals using the design/make/test process and by applying knowledge of materials, process and design factors to reach a viable solution. This helps them to develop an understanding of the iterative nature of the design process. Candidates also develop an understanding of the factors that influence the design, marketing and use of commercial products.

Manufacture

Candidates study the manufacture of commercial products. They develop knowledge of materials, manufacturing and production processes and strengthen their understanding of how these influence the design of products. This provides candidates with the knowledge and understanding required to develop a viable design proposal for a commercial product and to plan its production.

Integrating the two areas of study is fundamental to delivering the course successfully. It helps candidates to understand the relationship between designing products and manufacturing products and it helps them to see how this connection influences a product's lifecycle. By combining the study of design with the study of manufacturing, candidates also learn to appreciate the impact design and manufacturing technologies have on society, the environment and the world of work.

Course assessment structure:

Question paper

The question paper has 80 marks out of a total of 170 marks for the course assessment.

Section 1 has 25 marks and consists of a single question based on the design and manufacture of two similar products.

Section 2 has 55 marks and consists of six or seven questions that focus on the design and manufacture of commercial products and the impact design and manufacturing technologies have on society, the environment and the world of work.

Assignment

The assignment has 90 marks out of a total of 170 marks for the course assessment.

The assignment assesses the ability of candidates to apply design skills to develop a proposal according to a set brief.

Design and Manufacture – Advanced Higher

Develops

The aims of the Course are to enable learners to:

- develop understanding and skills in the processes of designing for the manufacture of products in commercial and industrial contexts
- develop and apply an understanding of the factors which influence thinking for product design and manufacturing activities
- develop a critical and visual awareness associated with requirements for user interface and product detailing
- develop independence in learning and enquiry skills in the context of problem solving in designing and manufacturing
- develop economic, social and environmental awareness of the implications of a product's design through its life cycle

Appropriate for

This Course or its components may provide progression to:

- further studies in product designing or manufacturing-related disciplines
- careers in product design, product design engineering, industrial design, the manufacturing industries and sectors, production and planning, and model making

Course Entry

Your subject	Pupils should, preferably, have a good pass in Higher Design and Manufacture.
Other subjects	Please consult the Head of Faculty.

Homework

Homework will be set on a regular basis and will include exercises designed to consolidate the Knowledge and Understanding elements of the course. It will also allow pupils to further experience the Design element of the course.

Course Structure and Unit Assessment Details

Design and Manufacture: Product Analysis (Advanced Higher) Unit

Learners who complete this Unit will be able to:

- Analyse the performance of a commercial product
- Analyse the production of a commercial product
- Analyse the impact of a product

Design and Manufacture: Product Development (Advanced Higher) Unit

Learners who complete this Unit will be able to:

- Identify and respond to a design opportunity
- Create and evaluate a design proposal

Design and Manufacture: Product Evolution (Advanced Higher) Unit

Learners who complete this Unit will be able to:

- Research factors that have influenced the evolution of the design and manufacture of a selected commercial product
- Investigate the impact of new and emerging technologies on the evolution of the design and manufacture of a selected commercial product

Course assessment structure

Component 1 — project 120 marks

The purpose of the project is to assess the practical application of knowledge and skills to develop a solution to an appropriately complex design and manufacture task, providing challenge and requiring application. It will assess the learner's skills in identifying opportunities to design and present solutions to satisfy perceived product needs, research target markets, visualise a range of solutions, test and critically evaluate the solution, and record the process.

Component 2 — question paper 80 marks

The question paper will have two Sections.

Section 1 will have 30 marks and will require candidates to demonstrate their knowledge of the influences that contribute to the evolution in the design and manufacture of products.

Section 2 will have 50 marks and will require candidates to demonstrate their knowledge of design and manufacture through integrated questions.

Total marks 200 marks