

S2 INTO S3
CURRICULUM
INFORMATION
PACK 2019-20

A useful resource with information about subject courses which are available for S3 pupils. There are live links throughout the document to help pupils, parents and carers find information they need to make informed subject choices.

Dear Pupil/Parent/Carer,

Second year pupils are about to make important decisions about subjects they wish to continue studying in third year relating to their career aspirations. We will offer support in many ways through the production, and delivery, of:

- S2 Personal and Social Education lessons
- S2 pupil curricular learner pathways event on Wednesday 6 March 2019
- S2 curricular pathways / course choice parent seminar Wednesday 6 March 2019 at 6pm.
- Curriculum Information Pack (this document)
- Pupil course choice interview from Wednesday 6 March 2019
- PlanIT Plus and My World of Work (Career related websites)
- Careers section in the school library
- Additional Support for parents through the following online resources:

https://www.myworldofwork.co.uk/my-career-options/choosing-my-subjects

Careers education in a nutshell - National Parent Forum of Scotland

My World of Work – Parents Section

https://www.myworldofwork.co.uk/learn-and-train

As a third-year pupil, you will continue with your Broad General Education within Curriculum for Excellence and choose to **study eight subjects** in greater depth. English and Mathematics are compulsory and you will also continue your learning in core subjects of RE, PE and Personal and Social Education (PSE). You will also continue to study the Modern Language you are currently studying in S2. The majority of pupils will be aiming to achieve Level 4 or beyond into National Qualifications during S3.

This booklet contains a significant amount of information for you to consider when making your choices for Third Year. It is organised to give further information about courses and topics in each subject. The booklet is organised alphabetically by each Faculty Area. We recommend that you follow the steps outlined below:

- 1. Use PlanIT Plus as the key online resource to complete the 'Careers Match', 'Career A-Z' and 'Subject Choices' sections. These resources might help you consider different types of careers as well as highlighting subjects which might be recommended for you.
- 2. Investigate which type of career(s) you would like to aim for in the future. It is always best to choose two or more options.
- 3. Find out which subjects are compulsory for your chosen career and choose these subjects first. Research using the 'Learn and Train' section on My World of Work website or ask your teachers or parents/carers. Support will also be given during your PSE lessons.
- 4. Priority should be given to subjects\*\* that you gain a sense of enjoyment/achievement.
- 5. If you are unsure, please choose subjects\*\* that are suitable to a wider range of careers.
- \*\* Please note that although we will do our best to provide first choices, there may be occasions where pupils are allocated their reserve subject or are asked to select another subject. This may be due to low uptake or over subscription of a subject. If this does occur, parents/carers will always be contacted.

Yours faithfully, Mrs Farley



## Faculty of Creative and Aesthetic

### ART & DESIGN – THIRD YEAR

### **Course Outline:**

### The Art & Design Course consists of three elements:

- 1. Expressive
- 2. Design
- 3. Critical

### Course Structure:

This course links practical skills with investigation skills. The skills covered are:

### Design unit:

Candidates will be able to choose to complete a 2D unit in design using a theme of their choice from a selected list of possible options. The final unit produced is split into 4 areas; research, consideration, final piece and evaluation.

### **Expressive unit:**

Candidates will continue to develop their skills in Drawing and Painting using a wide range of media. They will choose from a variety of subject matter producing work tailored to their own strengths.

### Investigation:

Candidates will produce a written investigation related to one of their practical units.

### **Assessment:**

Assessment will be continuous throughout the year and candidates will be given specific advice on how to progress to their fullest potential. Final assessment will be based entirely on the completed practical folios in Expressive and Design and also on the related written investigation.

### **Progression:**

### Successful completion at this level of study can progress to further study in:

- National 4 or National 5 Art & Design
- Higher Art & Design
- Creative Industries

### DRAMA – THIRD YEAR

Drama is for pupils who have an interest in the performing arts, and working with others to create pieces of drama. Pupils will learn about theatre arts and how to put these skills to practical use, either on stage, in the drama studio, or on film.

### **Course Outline:**

The course is a practical drama course and focuses on the development and the use of production techniques such as:

Acting Directing Lighting Sound

Set Design Costume Make-up Stage Management

Pupils will learn to use at least two of the above theatre arts to create and perform their drama.

Pupils will also be expected to use a variety of stimuli, including texts, to create, rehearse and present their own pieces of drama. To meet the Assessment Standard, pupils will prepare, rehearse and present a drama they have created, using a minimum of two production techniques.

### **Course Structure:**

### The Drama course consists of 3 units which are:

### **Drama Skills:**

Candidates will contribute to the drama process by exploring and developing drama skills in order to communicate ideas and devise drama. They will also explore form, genre, structure and style and use acting skills to portray character.

### **Drama Production Skills:**

The candidate will respond to stimuli to generate ideas for a production. They will also develop a performance concept and apply production skills to communicate their ideas. The end product will be the presentation of their production.

### **Drama Performance:**

The candidate will prepare for, participate in and reflect on a small-scale drama performance in a selected role. They will by select ideas and show an understanding of social and cultural influences on drama.

### **Assessment:**

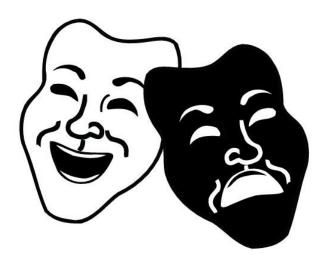
Assessment for these units will be a combination of a written folio and performance evidence. Candidates will be required to provide evidence of:

- Working through the process of creating drama by: developing ideas, adopting a character, working with others and evaluating and improving the drama.
- Presenting the piece of drama to others, communicating ideas when presenting, and reflecting on their work after presentation.
- Basic knowledge and understanding of production area: lighting, sound, costume props, make-up and set.
- Using production skills in a **chosen** area when presenting a piece of drama
- Reflecting on the use of their chosen production area when presenting a drama

### **Progression:**

Successful completion at this level of study can progress to further study in:

- National 4 or National 5 Drama
- Higher Drama
- Creative Industries



### MEDIA STUDIES – THIRD YEAR

### **Course Outline:**

The Media Studies course consists of three Elements:

- 1. Analysing Media Texts
- 2. Creating Media Content
- 3. Added Value Unit

### Course Structure:

Pupils will study Media texts and apply what they learn from analysis in the planning and production of their own Media texts, either in a group or individually.

### Units studied are:

### **Analysing Media Texts:**

Candidates will study media texts using the Key Aspects of Media Studies. They will analyse these texts and, in so doing, develop an understanding of how they were made.

### **Creating Media Content:**

This part of the course draws on the skills and knowledge attained in the Analysis sections. Candidates will work in a group or individually to plan, create and evaluate Media content.

### **Assessment:**

### **Analysing Media Content:**

This element of the course is assessed by an end of topic test.

### **Creating Media Content:**

Assessment will be made through participation, keeping a log and producing a written evaluation

### **Progression:**

Succession completion at this level of study can progress to further study in:

- National 4 or National 5 Media Studies
- Higher Media Studies
- Creative Industries

### **MUSIC (Performing) – THIRD YEAR**

### **Course Outline:**

The Music (Performing) course consists of three elements:

- 1. Performing (2 instruments)
- 2. Compositional techniques
- 3. Listening skills

### **Course Structure:**

This course is a practical course in the main. Candidates will learn a variety of musical skills through developing skill and confidence in their chosen instruments. The skills covered are detailed below:

### Performing:

Pupils will be guided to choose 2 suitable instruments to pursue and will be taught to develop transferrable skills in both instruments. All pupils are encouraged to progress at their own pace and level.

### **Compositional techniques:**

Pupils will be given the opportunity to write their own music, in a variety of styles, using their chosen instrument(s).

### **Listening skills:**

Through performing, pupils will learn and identify musical concepts.

### **Assessment:**

Assessment in the Music (Performing) course will be ongoing and will involve:

- **Performing** individual performance on each instrument. Pupils will be encouraged to perform for an audience but this is not mandatory
- Composition production of a folio
- Listening concept tests/end of year assessment

### **Progression:**

Succession completion at this level of study can progress to further study in:

- National 4 or National 5 Music
- Higher Music
- Free standing music units
- Creative industries

# Faculty of Creative & Aesthetic

### **MUSIC (Technology) - THIRD YEAR**

### **Course Outline:**

### The Music Technology course consists of three elements:

- 1. Music Technology Skills
- 2. Understanding 20<sup>th</sup> and 21<sup>st</sup> Century Music
- 3. Music Technology in Context

### **Course Structure:**

This course is a technology course in the main. Pupils develop skills and knowledge relevant to the needs of the music industry. Skills covered are:

### **Music Technology Skills:**

Pupils will learn how to use hardware and software to record audio from a range of sources. They will also become familiar with roles within the music industry e.g. sound engineer, audio engineer and Foley Artists.

### Understanding 20th and 21st Century Music:

Pupils will describe how technological developments relate to 20<sup>th</sup> and 21<sup>st</sup> Century music by:

- Describing and identifying a range of genres and styles e.g.: Synth pop, Punk, Rock.
- Describing the main technologies used by a range of genres.
- Identifying examples of a range of relevant musical concepts.

### **Music Technology in Context:**

Complete assignments which demonstrate skills developed in Unit 1 by:

- Using a range of skills to record audio.
- Using a range of skills to edit/manipulate audio.
- Produce two audio masters which demonstrate skills developed in unit one. E.g. recording a rock band, Sound Foley and design, Record a radio broadcast, creating a jingle.

### **Assessment:**

- **Technology skills**: Log book detailing the learning process of using hardware and software and the recording process. The log book should also demonstrate the planning, implementation and evaluation of each assignment.
- Understanding Music: question paper and written response to a variety of genre.
- **Technology in Context:** produce two short pieces of work which demonstrate their ability to capture sound, manipulate it and then mix it down to an audio master.

### **Progression:**

### Successful completion at this level of study can progress to further study in:

- National 4 or 5 Music (Technology) then Higher Music (Technology)
- Free standing Music units or Creative Industries



## Faculty of English

### **ENGLISH – THIRD YEAR**

### **Course Outline:**

This course allows learners to develop as critical readers and thinkers. It also encourages learners to be confident writers who have the ability to write critically, persuasively, creatively and at times, independently.

Finally, it seeks to give opportunities for learners to become successful speakers and listeners in solo and group situations.

### **Course Structure:**

Learners will be given the opportunity to continue the study of English begun in their broad general education with a greater focus on developing National 4 and 5 (if appropriate) skills. The S3 course continues to build on and develop the essential skills a learner will need in Reading, Writing, Listening and Talking. These skills are developed primarily through the study of literary texts in all genres and learners will be expected to read widely both in and out with class, as well as complete an exercise of independent study. Pupils will also have the opportunity to undertake the Scottish Studies award in Scottish Language and Literature and work towards this qualification at National 4 level.

### **Assessment:**

Formative Assessment will be ongoing throughout the year in all areas of the course and summative assessment will be undertaken to ensure that the Course Outcomes for the Scottish Studies course are being met.

There will be no examination in S3.

The expectation is for pupils to continue their English career to, at least, S4 where they will be presented for National 4 or National 5 in S4.

### **Progression:**

For those who complete National 4 in Fourth Year there will be the opportunity to embark on National 5. For those who complete National 5 in Fourth Year, there will be the opportunity to embark upon the Higher course.

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## Faculty of Health and Wellbeing

### **HEALTH & FOOD TECHNOLOGY – THIRD YEAR**

### **Course Outline:**

The Third Year Health & Food Technology Course consists of four units:

- Food for Health
- Food Product Development
- Contemporary Food Issues
- Design Challenge.

### **Course Structure:**

### **Food for Health**

This unit aims to develop an understanding of current healthy eating. This will be achieved by the completion of a variety of practical lessons focusing on nutrition and the need for a well-balanced diet.

### **Food Product Development**

Pupils will be given the opportunity to create a new food product for the fast moving food industry. This will allow pupils to gain experience in market research, sensory testing and how to advertise and market a new product successfully. Pupils will also complete experiments to identify the properties of ingredients and how manufacturers design new products based on these characteristics.

### **Contemporary Food Issues**

This topic will enable pupils to gain an understanding of the current trends within the food industry and gain practical and real life experiences which will influence their food choices in the future. Some current issues which will be studied include GM foods and Fairtrade farming.

### **Assessment:**

Pupils will be assessed on each of the four units outlined above. Assessment will enable pupils to demonstrate their knowledge and understanding through:

- Various practical activities
- Folios of work
- Experiments
- Group work challenges
- End of unit assessments

### **Progression:**

Succession completion at this level of study can progress to further study in:

National 4 or National 5 Health & Food Technology or Higher Health & Food Technology Food Technology Industry courses at college

### **HOSPITALITY – THIRD YEAR**

### **Course Outline:**

### The Third Year Hospitality Course consists of:

- Cookery Skills techniques and processes
- Understanding and using ingredients
- Organisational skills for cooking
- Producing a meal

### **Course Structure:**

Pupils will also develop their basic cookery skills and learn to follow recipes. In doing this, they will form the ability to follow safe and hygienic kitchen practices, and will develop good organisational and time management skills.

Pupils will also develop their knowledge of the function of different ingredients in cooking. They will also learn about responsible use of ingredients and understand how different ingredients can impact on their health.

By the end of the course pupils will have to plan a two-course meal and present their meal in a professional manner.

Activities such as chef demonstrations, visits to restaurants will also be included in this course.

### **Assessment:**

### Assessment arrangements for the Third Year Hospitality Course are:

### Units 1 – 3

Pupils will be continually assessed throughout the course on their practical abilities.

### Unit 4

Part A - 2 hour practical assessment (2 course meal)

Part B - Food Hygiene Certificate

### **Progression:**

### Successful completion can progress to further study in:

- National 4
- National 5 Hospitality
- Food and Catering Industry

### **PAYMENT & FEES**

### HEALTH & FOOD TECHNOLOGY and HOSPITALITY

Unlike many schools, we do not ask parents/carers to provide materials for your child to bring in each week; we will provide all that is needed. However, given that your child will be cooking every week, a financial contribution towards the cost of the ingredients will be required.

Please note that because of the financial commitment, pupils who want to study either subject must not have any outstanding fees from the previous year. Payment for all HFT/Hospitality/HE courses should be paid by the end of June via the school website to prevent pupils re-choosing their subjects

If you have any concerns regarding payments, please do not hesitate to contact Mr Brown (Health & Wellbeing Faculty Head)

Please contact the school if financial assistance is required. All enquiries will be treated in total confidence.

### **PHYSICAL EDUCATION – THIRD YEAR**

### **Course Outline:**

The course consists of 3 periods a week during which learners will participate in the following activities:

- Badminton
- Basketball
- Football
- Gymnastics
- Swimming and
- Trampolining.

Pupils must be competent in a minimum of 2 activities to ensure they are capable of meeting the practical demands of the course.

### **Course Structure:**

Throughout the course and in each activity, pupils will develop their knowledge and understanding of the mental, emotional, physical and social factors and how they can positively and negatively impact on performance.

Within trampolining and gymnastics, pupils will have the opportunity to enhance their performance skills, develop creative sequences, gain an appreciation of the skills and techniques and understand the different training approaches used to improve performance.

Within Football and Swimming, pupils will have the opportunity to enhance performance skills, develop physical and skill related fitness, undertake fitness testing and understand how to evaluate progress made.

Within Basketball and Badminton, pupils will have the opportunity to enhance their performance skills, understand how to collect data and how to plan a training programme to improve performance.

### **Assessment:**

Assessment arrangements for the Third Year Physical Education Course are:

- Performing individual performances in trampolining gymnastics and swimming, small team performances in football and basketball, individual games in badminton.
- Practical Pupils are internally assessed on two of their preferred activities.
- **Workbook** pupils collect ongoing information relative to the process of improving performance.

Homework- Regular homework will be issued to help pupils meet the theoretical demands of the course.

### **Progression:**

### Pupils can progress to the following Physical Education courses:

- National 4 Physical Education
- National 5 Physical Education

### Additional certification in the PE Department

- Sports Leadership (SLUK)
- PDA SFA Refereeing Award (SQA)



### Faculty of Mathematics

### **MATHEMATICS – THIRD YEAR**

### **Course Outline:**

Numeracy is the most important skill that can be developed in Mathematics.

Many people believe that the approach to numeracy has changed in recent years but the basics of mathematics are the same as they have been for centuries. Demands made by employers and other subject areas are the same as at any time in the past 20 years.

### **Courses offered in Third Year are:**

- National 3 Applications of Mathematics
- National 4 Mathematics
- National 5 Mathematics

Pupils will embark on one of these courses dependent upon attainment in Second Year.

### **Course Structure:**

Each of the courses consists of three units. Within these units, the skills required remain as always

- Algebraic
- Geometric
- Trigonometric

- Statistical
- Numerical

In addition, applying Interpretation, Communication and Reasoning skills will foster understanding beyond the basic level.

### **Assessment:**

The course units are assessed internally and a pass is required for each. Pupils must also show that the skills listed above can be aggregated and applied to situations which are beyond the basic level. At National 4 level, pupils are required to complete an added value assessment which is examined internally. At National 5, the courses have an additional external assessment supervised by SQA.

### **Progression:**

Pathways to presentation at National 4, National 5, Higher or Advanced Higher are clear for pupils who show a high level of competence.

Progress in S3 will inform the recommendation for pupils to continue their study in Mathematics or Applications of Mathematics. Presentation for any award will take place in S4.

### Possible presentation pathway in Mathematics

The Mathematics qualifications enable learners to select and apply mathematical techniques and theory in a variety of mathematical and real-life situations. Successful completion will equip learners with the skills needed to interpret and analyse information, simplify and solve problems, and make informed decisions. Successful progress through these courses may prepare learners for further study involving Mathematics.

S3	<b>S4</b>	<b>S5</b>	S6
N4 Maths	N4 Maths + N5 Numeracy Unit	N4 Maths	N4 Maths
N5 Maths	N5 Maths	N5 Maths	N5 Maths
		N6 Maths (Higher)	N6 Maths (Higher)
			N7 (Adv. Higher)

**Note:** Presentation at National 5/6 takes place after 2 years of study for most pupils.

Pupils will be presented in S4 for courses started in S3 along with recognition of achievement at the next level in S4.

### Possible presentation pathway in Applications of Mathematics

The Applications of Mathematics qualification supports numeracy and develops learners' mathematical reasoning skills for learning, life and work. Learners are developed to think through real-life situations including managing finance, statistics, geometry and measurement in real-life contexts. Successful progress will develop confidence and independence in mathematical tasks in both personal life and in the workplace.

For a number of pupils this course represents the best option to achieve a National 5 award. Pupils may cross into this course having complete N4 Mathematics previously.

### A possible presentation pathway for Applications of Mathematics could be:

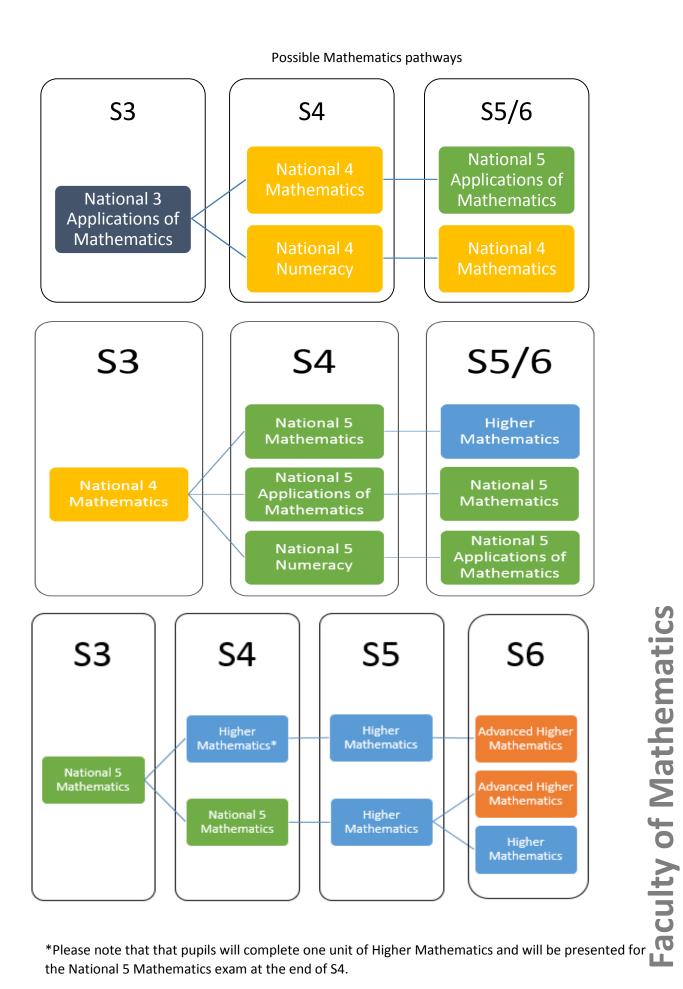
S3	S4	S5/6
N3 Applications	N3 Applications + N4 Numeracy	N5 Applications
N4 Maths	N4 Maths + N5 Numeracy	N5 Applications
N4 Maths + N5 Numeracy Unit	N5 Applications	

**Note:** Study towards a National 5 Applications award is likely to take two years.

Any pupil in this route will look to present in S4 should complete the National 5 Numeracy Award in Third Year.

Pupils will be presented in S4 for courses started in S3 along with recognition of achievement at the next level in S4.





the National 5 Mathematics exam at the end of S4.



### Faculty of Religious Education

### RELIGIOUS, MORAL & PHILOSOPHICAL STUDIES (RMPS) THIRD YEAR

### **Course Outline:**

This course is <u>NOT more core RE</u>, has different content and is also delivered in non-denominational schools nation-wide.

The RMPS course consists of three topics:

- World Religion (Judaism or Christianity or Buddhism or Islam or Hinduism or Sikhism)
- Morality and Belief (Justice, Medical Ethics, War, Environmental issues etc)
- Religious and Philosophical Questions (The Existence of God, Origins of the universe etc)

### **Course Structure:**

The purpose of the course is to develop knowledge and understanding of <u>religious, moral and philosophical</u> issues and how these relate to personal or practical contexts. Core skills of evaluation and analysis are fleshed out with real life examples

Learners will have opportunities to reflect on these and on their <u>own experience</u> and <u>views</u>. **Religious** and non-religious perspectives will be included.

### **Assessment:**

The RMPS course develops and assesses a range of communication, interpersonal and thinking skills which are directly relevant to the workplace and may increase a learner's employability.

### **Progression:**

Successful completion of this course can progress to further study in:

- National 4 or National 5 RMPS
- Higher RMPS
- Advanced Higher RMPS

The course may also provide lateral or vertical progression to units or qualifications in related social subjects or social science.



### Faculty of Science

### **BIOLOGY - THIRD YEAR**

### **Course Outline:**

The Course provides opportunities for learners to develop skills, knowledge and understanding of biology. The Course develops scientific understanding of biological issues and aims to develop learners' interest in and enthusiasm for biology, by using a variety of approaches, with an emphasis on practical activities.

### The Biology course aims to:

- develop and apply knowledge and understanding of biology concepts
- develop an understanding of biology's role in scientific issues and relevant applications of biology in society
- develop scientific inquiry and investigative skills
- develop scientific analytical thinking skills in a biology context
- develop use of technology, equipment and materials, safely, in practical scientific activities
- develop problem solving skills in a biology context
- develop use and understanding of scientific literacy, in everyday contexts, to make scientifically informed choices
- develop the knowledge and skills for more advanced learning in the sciences

### **Course Structure:**

Pupils will study units relating to the following areas of Biology:

- Cell Biology
- Multicellular Organisms
- Life on Earth

### **Assessment:**

### Pupils will be assessed using the following methods:

- Knowledge and understanding assessment and end of unit assessments
- Skills assessments including investigative and project work
- Capabilities and attributes pupils can gain credit for their contributions and attributes in the classroom

### **Progression:**

### Successful completion at this level of study can progress in the following ways:

- National 4 or National 5 Biology
- Higher Biology or Higher Human Biology

### **CHEMISTRY – THIRD YEAR**

### **Course Outline:**

The Course is practical and experiential and develops scientific understanding of issues relating to chemistry. The Course will develop concepts within a reverse engineering process, where learners start with a product and work backwards to develop the underlying chemistry.

The Course is practical and develops learners' skills through the study of the applications of chemistry in an everyday context. By using a skills-based approach to developing knowledge and understanding of some basic chemistry concepts, learners will become scientifically literate citizens, able to evaluate the science-based claims which they will come across in a rapidly developing society.

### The main aims of this Course are to:

- develop scientific and analytical thinking skills in a chemistry context
- develop problem solving skills in a chemistry context
- develop an understanding of chemistry's role in scientific issues
- acquire and apply knowledge and understanding of chemistry concepts
- develop understanding of relevant applications of chemistry in society

### **Course Structure:**

### Pupils will specialize in the following areas of Chemistry:

- Chemical Changes and Structure
- Nature's Chemistry
- Chemistry in Society

### **Assessment:**

### Pupils will be assessed using the following methods:

- Knowledge and understanding assessment and end of unit assessments
- Skills assessments including investigative and project work
- Capabilities and attributes pupils can gain credit for their contributions and attributes in the classroom

### **Progression:**

### Successful completion at this level of study can progress in the following ways:

- National 4 or National 5 Chemistry
- Higher Chemistry

### **PHYSICS – THIRD YEAR**

### **Course Outline:**

The Course provides opportunities for learners to develop skills, knowledge and understanding of physics. The Course develops scientific understanding of physics issues and aims to develop learners' interest in and enthusiasm for physics, by using a variety of approaches, with an emphasis on practical activities.

### The Course aims to:

- develop and apply knowledge and understanding of physics concepts
- develop an understanding of role of physics in scientific issues and relevant applications of physics in society
- develop scientific inquiry and investigative skills
- develop scientific analytical thinking skills in a physics context
- develop use of technology, equipment and materials, safely, in practical scientific activities
- develop problem solving skills in a physics context
- develop use and understanding of scientific literacy, in everyday contexts, to make scientifically informed choices
- develop the knowledge and skills for more advanced learning in the sciences

### **Course Structure:**

### Pupils will specialise in the following areas of Physics:

- Electricity and Energy
- Waves and Radiation
- Dynamics and Space

### **Assessment:**

### Pupils will be assessed using the following methods:

- Knowledge and understanding assessment and end of unit assessments
- Skills assessments including investigative and project work
- Capabilities and attributes pupils can gain credit for their contributions and attributes in the classroom

### **Progression:**

### Successful completion at this level of study can progress in the following ways:

- National 4 or National 5 Physics
- · Higher Physics

### PRACTICAL ELECTRONICS – THIRD YEAR

### **Course Outline:**

Electronics is an area of human endeavour which brings together elements of technology, science and mathematics and applies these to real world challenges. This Course provides skills and a basic understanding of electronics and its impact and also provides a valuable complementary practical experience for those studying Engineering Science, Physics or other pure science Courses.

The electronics industry continues to be a major contributor to the economy. It contributes not only to manufacturing, but to other sectors such as finance, telecommunications, material processing, oil extraction, weather forecasting and renewable energy.

### The aims of the Practical Electronic Course are to enable learners to develop:

- knowledge and understanding of key concepts in electronics and apply these in a range of contexts
- a range of practical skills in electronics, including skills in analysis and problem solving, design skills, skills in the safe use of tools and equipment, and skills in evaluating products and systems
- awareness of the importance of safe working practices in electronics
- an understanding of the role and impact of electronics inchanging and influencing society and the environment.

### **Course Structure:**

### A description of main content is summarised below:

Unit 1: Practical Electronics: Circuit Design

This Unit provides a basic understanding of key electrical concepts and electronic components.

Unit 2: Practical Electronics: Circuit Simulation

In this Unit, the learner will use simulation software to assist in the design, construction and testing of simple circuits and systems and to investigate their behaviour.

Unit 3: Practical Electronics: Circuit Construction

This Unit provides experience in assembling a range of simple electronic circuits, using permanent and non-permanent methods.

### **Assessment:**

Pupils will be assessed using written and practical internal assessments

### **Progression:**

### Succession completion at this level of study can progress to further study in:

National 4 or National 5 Practical Electronics

### **SCIENCE – THIRD YEAR**

### **Course Outline:**

The purpose of the Course is to develop learners' curiosity, interest and enthusiasm for science in a range of contexts. The skills of scientific inquiry and investigation are integrated and developed throughout the Course. The relevance of science is highlighted by the study of the applications of science in everyday contexts.

The Course is an up-to-date selection of ideas relevant to the central position of science within our society. It is practical and experiential, and develops scientific awareness of issues relating to science.

The aims of this Course are for learners to:

- ♦ develop and apply knowledge and understanding of science
- ♦ develop an understanding of science's role in scientific issues and relevant applications of science in society and the environment
- ♦ develop scientific inquiry and investigative skills
- ♦ develop scientific analytical thinking skills in a science context
- ♦ develop the use of technology, equipment and materials safely in practical scientific activities
- ♦ develop problem solving skills in a science context
- use and understand scientific literacy in everyday contexts to communicate ideas and issues
- ♦ develop the knowledge and skills for more advanced learning in sciences

### **Course Structure:**

Pupils will specialize in the following areas of Chemistry:

- Fragile Earth
- Human Health
- Applications of Science

### Assessment:

Pupils will be assessed using the following methods:

- Knowledge and understanding assessment and end of unit assessments
- Skills assessments including investigative and project work
- Capabilities and attributes pupils can gain credit for their contributions and attributes in the classroom

### **Progression:**

Successful completion at this level of study can progress in the following ways:

National 4 or National 5 Science



## Faculty of Social Subjects

## Faculty of Social Subjects

### **GEOGRAPHY – THIRD YEAR**

### **Course Outline:**

Pupils will study the following areas in Third and Fourth Year Geography

### **Unit 1: Human Geography (Population and Settlement)**

Within this unit, pupils will consider issues such as population change and settlement in the United Kingdom.

### Unit 2: Physical Geography – Scottish Unit

In this unit, pupils will study Weather, Glaciation and Coasts, and the conflicts in the landscape of these areas.

### Unit 3: Global issues

In this unit, pupils will choose from a number of areas of study including climate change; the impact of human activity on the natural environment; environmental hazards; trade and globalisation; tourism and health.

In S3, pupils will study the Scottish topic (unit 2), which will contribute to them working towards being awarded a qualification in Scottish Studies. In order to be able to achieve this, the pupils must successfully pass all contributing units that they are working on across Social Subjects and English.

### Course outline for S3 Physical Geography Physical environments

### Landscape types

Within the context of **two** landscape types (glaciated uplands and coastal landscapes)

The identification and formation of the following landscape features (from **two** landscape types):

- glaciated upland corrie, truncated spur, pyramidal peak, arête, u-shaped valley
- coastal landscapes cliffs, caves and arches, stacks, headlands and bays, spits and sand bars

Land uses appropriate to the **two** landscape types studied should be chosen from:

- farming
- forestry
- industry
- recreation and tourism
- water storage and supply
- renewable energy

In the context of **one** landscape type studied:

- the conflicts which can arise between land uses within this landscape
- the solutions adopted to deal with the identified land use conflicts

The unit undertaken by all students who study Social Subjects in S3 and contributes to the Scottish

Studies award is entitled **Skills for Work: Travel and Tourism - Scotland (National 4/5).** Throughout this unit, pupils will be required to provide written and/or oral evidence relating to:-

### Outcome 1

- detailed descriptions of a minimum of three destinations in Scotland
- detailed descriptions of a minimum of three tourist attractions in or around each of the chosen destinations
- detailed description of current travel and tourism trends in Scotland including the reasons explaining the trends
- detailed description of the positive and negative impacts of travel and tourism including the reasons explaining the impacts.

### Outcome 2

- identifies a suitable destination
- provides detailed information in relation to the destination and possible travel route to get there
- provides a detailed description of accommodation, activities, attractions and amenities
- provides a detailed itinerary

The above information relates to National 5 level, with less detail/ description being required for National 4 level.

### **Assessment:**

Assessment will be ongoing and will be internally assessed for those pupils who are sitting National 4 level. All pupils will also be given the opportunity to work at National 5 level, which will eventually lead to them being presented for the external SQA exam in May 2020.

Throughout the course of the year, all pupils will also be required to complete an Added Value Unit Assignment at National 4 level which will be internally assessed. This includes a compulsory fieldwork element.

### **Progression:**

Pupils who successfully complete this course will have the option to carry on and study Geography at National 4 or National 5 level in S4.

We would recommend that a pupil continues with the course they choose in S2 and there will be an option to study other Social subjects in S5 and S6.

Social Subjects is a valuable area of study for those intending to complete further and Higher Education

## Faculty of Social Subjects

### **HISTORY – THIRD YEAR**

### **Course Outline:**

Pupils will study the following areas in Third and Fourth Year History under the topics British History and European and World History.

### **Scottish History**

In this unit, pupils will focus on a topic entitled Era of Great War 1900-1928.

### **British History**

In this unit, pupils will focus on a topic entitled Changing Britain 1760 - 1900.

### **European and World History**

In this unit, pupils will focus on a topic entitled Hitler and Nazi Germany, 1919-1939

In S3, pupils will study the Scottish topic, which will contribute to them working towards being awarded a qualification in Scottish Studies. In order to be able to achieve this, the pupils must successfully pass all contributing units that they are working on across Social Subjects and English.

### Course outline for Era of Great War, 1900-1928:-

A study of the experiences of Scots in the Great War and its impact on life in Scotland. This topic considers the impact of technology on the soldiers on the Western Front. It also considers the way in which the war changed life for people at home as the war began to impact on every aspect of life both during and after the war.

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Key issues	Description of content		
Scots on the Western Front	Recruitment; experience of life in the trenches; military tactics; technology of war — gas, tanks, machine guns, aircraft, artillery.		
Domestic impact of war: society and culture	Defence of the Realm Act; rationing; changing role of women in society; propaganda; conscription and conscientious objectors; casualties and deaths.		
Domestic impact of war: industry and economy	War work including women's war work; reserved occupations; post-war decline of heavy industry; impact on fishing and agriculture; new industries in the 1920s.		
Domestic impact of war: politics	Impact of campaigns for women's suffrage; rent strikes; extension of the franchise; homes fit for heroes.		

The second unit which will be studied is undertaken by all students who study Social Subjects in S3 and contributes to the Scottish Studies award. This unit is entitled **Skills for Work: Travel and Tourism - Scotland (National 4/5).** Throughout this unit, pupils will be required to provide written and/or oral evidence relating to:-

### Outcome 1

- detailed descriptions of a minimum of three destinations in Scotland
- detailed descriptions of a minimum of three tourist attractions in or around each of the chosen destinations
- detailed description of current travel and tourism trends in Scotland including the reasons explaining the trends
- detailed description of the positive and negative impacts of travel and tourism including the reasons explaining the impacts.

### Outcome 2

- identifies a suitable destination
- provides detailed information in relation to the destination and possible travel route to get there
- provides a detailed description of accommodation, activities, attractions and amenities
- provides a detailed itinerary

The above information relates to National 5 level, with less detail/ description being required for National 4 level.

### **Assessment:**

Assessment will be ongoing and will be internally assessed for those pupils who are sitting National 4 level. All pupils will also be given the opportunity to work at National 5 level, which will eventually lead to them being presented for the external SQA exam in May 2020.

Throughout the course of the year, all pupils will also be required to complete an Added Value Unit Assignment at National 4 level which will be internally assessed.

### **Progression:**

Pupils who successfully complete this course will have the option to carry on and study History at National 4 or National 5 level in S4.

We would recommend that a pupil continues with the course they chose in S2 and there will be an option to study other Social Subjects in S5 and S6.

Social Subjects is a valuable area of study for those intending to complete Further and Higher Education.

## Faculty of Social Subjects

### **MODERN STUDIES – THIRD YEAR**

### **Course Outline:**

Pupils will study the following areas in Third and Fourth Year Modern Studies under the topics Political Issues, Social Issues and International Issues.

### **Political Issues**

Within this area, pupils will focus on a topic entitled Democracy in Scotland and the UK, concentrating on a UK route.

### **Social Issues**

Within this area, pupils will focus on a topic entitled Crime and Law, with an emphasis on Scotland.

### **International Issues**

Within this area, pupils will focus on a unit entitled World Power: The USA

In S3, pupils will study the Scottish topic, which will contribute to them working towards being awarded a qualification in Scottish Studies. In order to be able to achieve this, the pupils must successfully pass all contributing units that they are working on across Social Subjects and English.

Course Outline for Social Issues: Crime and Law - Scotland

### Nature of crime

- nature and extent of crime in Scotland and/or the UK
- evidence of crime in Scotland and/or the UK, such as official reports and academic research

### Causes of crime

- social causes and explanations of crime
- economic causes and explanations of crime
- biological causes and explanations of crime

### Consequences of crime

- on perpetrators
- on victims
- on families
- on communities
- on wider society

### Criminal justice system

- role and structure of the criminal courts (including the children's hearing system)
- powers of the criminal courts (including the children's hearing system)
- effectiveness of criminal courts in tackling crime

### Responses to crime

- Government responses
  - government responses to crime
  - effectiveness of government responses

### • Police

- role, structure and powers of the police in Scotland
- effectiveness of the police in Scotland in tackling crime

### • Prisons

- purpose and effectiveness of prisons
- purpose and effectiveness of alternatives to prisons

The second unit which will be studied is undertaken by all students who study Social Subjects in S3 and contributes to the Scottish Studies award. This unit is entitled **Skills for Work: Travel and Tourism - Scotland (National 4/5).** Throughout this unit, pupils will be required to provide written and/or oral evidence relating to:-

### Outcome 1

- detailed descriptions of a minimum of three destinations in Scotland
- detailed descriptions of a minimum of three tourist attractions in or around each of the chosen destinations
- detailed description of current travel and tourism trends in Scotland including the reasons explaining the trends
- detailed description of the positive and negative impacts of travel and tourism including the reasons explaining the impacts.

### Outcome 2

- identifies a suitable destination
- provides detailed information in relation to the destination and possible travel route to get there
- provides a detailed description of accommodation, activities, attractions and amenities
- provides a detailed itinerary

The above information relates to National 5 level, with less detail/ description being required for National 4 level.

Pupils will also undertake an Introductory unit at the start of S3 in Modern Studies which will focus on The Rights of the Child. Within this unit, pupils will begin to consider the skills that are used in Modern Studies, and will do this alongside considering issues such as:-

- The United Nations Convention on the Rights of the Child
- Global Interdependence
- Child Labour
- The Work of UNICEF
- Child Trafficking
- Child Soldiers

### **Assessment:**

Assessment will be ongoing and will be internally assessed for those pupils who are sitting National 4 level. All pupils will also be given the opportunity to work at National 5 level, which will eventually lead to them being presented for the external SQA exam in May 2020.

Throughout the course of the year, all pupils will also be required to complete an Added Value Unit Assignment at National 4 level which will be internally assessed

### **Progression:**

Pupils who successfully complete this course will have the option to carry on and study Modern Studies at National 4 or National 5 level in S4.

We would recommend that a pupil continues with the course they chose in S2 and there will be an option to study other Social Subjects in S5 and S6.

Social Subjects is a valuable area of study for those intending to complete further and Higher Education.



### ACCOUNTING – THIRD YEAR

### **Course Outline:**

The need for young people to learn how to manage effectively their own finances, their future involvement in societies, clubs and enterprises and the increase in the number of people who have become self-employed have underlined the need for the study of **Accounting** in the curriculum. The National 5 course in Accounting reflects the movement of accounting from a traditional record-keeping base towards a role which emphasises its importance in the provision of information for decision making.

### **Course Structure:**

Working with figures plays a large part in Accounting and so a high level of numerical skill is desirable. The course contains three assessable mandatory units, a practical assignment and a course assessment in the form of an examination.

### **Preparing Financial Accounting Information**

The purpose of this Unit is to develop skills, knowledge and understanding relating to the preparation of financial accounting information, and the application of accounting regulations, associated with small to medium- sized business structures. The information produced will be used to establish the historical performance and current financial position of the organisation.

### **Preparing Management Accounting Information**

The purpose of this Unit is to develop skills, knowledge and understanding relating to the provision of internal accounting information, using a range of basic accounting techniques including budgeting and break-even. The information prepared will be used by management to make decisions regarding future planning and control of the business.

### **Analysing Accounting Information**

The purpose of this Unit is to develop skills, knowledge and understanding relating to the interpretation and analysis of a range of accounting information including ratio analysis. The information will be used to assess the organisation's current financial position and to assist with future decision making.

### **Assessment:**

The course units are assessed internally and a pass is required for each. In addition an externally set course assignment must be completed satisfactorily together with a course assessment exam. Taken together these assessments will result in a graded course award.

### **Progression:**

Progress could be to **National 5 Accounting**. Consideration should be given other courses such as:

N5 Administration and IT or N5 Business Management

Accounting is eminently suitable for pupils who wish to pursue a career in finance, perhaps in the Accountancy, Banking or Insurance sectors. Pupils can progress to Higher Grade Accounting in S5.

### **ADMINISTRATION and IT – THIRD YEAR**

### **Course Outline:**

This is a practical based course suitable for those students wishing to pursue a career in an office environment. It is suitable for individuals who wish to acquire basic administrative skills. It aims to develop the skills required in the use of business software packages particularly word processing, spreadsheets, databases and powerpoint. It also develops pupil skills in Internet and e-mailfacililties.

### **Course Structure:**

### There are 3 units of study:

### **Administrative Practices**

The purpose of this Unit is to give learners a basic introduction to administration within organisations by applying this understanding in carrying out a range of straightforward administrative tasks, with the emphasis on those involved in organising and supporting small-scale events (including meetings).

### **IT Solutions for Administrators**

The purpose of this Unit is to develop learners' basic skills in IT and organising and processing simple information in familiar administration-related contexts by use word processing, spreadsheets, databases or emerging equivalent technologies

### **Communication in Administration**

The purpose of this Unit is to enable learners to use IT for gathering and sharing simple information with others in familiar administration- related contexts e.g. Internet and PowerPoint

### **Assessment:**

The course units are assessed internally and a pass is required for each. In addition an externally set course assignment must be completed satisfactorily together with a course assessment exam. Taken together these assessments will result in a graded course award.

### **Progression:**

### Pupils can progress to:

- National 5 Administration & IT
- National 5 Business Management
- National 5 Accounting

### **BUSINESS - THIRD YEAR**

### Course Outline:

Business looks at different types of organisations and how they are financed and run. It also looks at management issues and decision making. The main functional areas of management studied include Marketing, Human Resources, Operations and Finance.

Pupils will broaden their knowledge and understanding of what they perceive as a "manager" and the skills required to be one.

### **Course Structure:**

Pupils will study Level 4 outcomes and then progress to either National 4 Business or National 5 Business Management depending on how they progress in S3. The units of study in the National 4 Business course are:

### **Business in Action**

- how and why businesses develop and operate in today's society.
- how businesses are organised by exploring the functional activities, such as marketing, finance, operations and human resources
- the actions taken by business to meet customers' needs

### **Influences on Business**

- the impact that a range of internal and external influences have on business
- decision making in straightforward contexts. investigate the role and influence of stakeholders on businesses

### **Assessment:**

### **Business in Practice Assignment**

- draw on and apply the skills, knowledge and understanding they have gained from across the other Units of the Course.
- the assignment will be sufficiently flexible and open to allow for a degree of personalisation and choice as to the aspect of business to be investigated and
- how the findings may be presented.

### **Added Value Assessment**

• Pupils will be expected to demonstrate the skills, knowledge and understanding they have gained from across the other units of the course. This will be marked as a pass/fail.

### **Progression:**

### Successful completion of this Award can lead to further study in:

- Business Management at National 5
- Administration and IT at National 5
- Accounting at National 5 (assuming proficiency in Mathematics)

Business will enable pupils to develop skills for learning, life and work. It is suitable for those pupils who wish to pursue a career in Business, Retail or Events Management. Pupils can progress to National 5 in S4 and Higher in S5/6.

### **BUSINESS - THIRD YEAR**

### **Course Outline:**

If you progress well beyond Level 4 then you may begin to study National 5 Business Management Course which aims to enable learners to develop:

- knowledge and understanding of the ways in which society relies on business to satisfy our needs
- an insight into the systems organisations use to ensure customers' needs are met
- enterprising skills and attributes by providing them with opportunities to explore realistic business situations
- financial awareness through a business context
- an insight into how organisations organise their resources for maximum efficiency and improve their overall performance
- an awareness of how external influences impact on organisations

### **Course Structure:**

The Units of study in the National 5 Business Management course are:

### **Understanding Business**

In this Unit, learners will be introduced to the business environment. Learners will develop relevant skills, knowledge and understanding by carrying out learning activities relating to the role of business organisations.

### **Management of People and Finance**

In this Unit, learners will develop skills, knowledge and understanding relating to the internal issues facing organisations in the management of people and finance.

### **Management of Marketing and Operations**

In this Unit, learners will develop skills, knowledge and understanding relating to the importance to organisations of having effective marketing and operations systems.

### **Assessment:**

The course units are assessed internally and a pass is required for each. In addition an externally set course assignment must be completed satisfactorily together with a course assessment exam. Taken together these assessments will result in a graded course award.

### **Progression:**

Successful completion of this Award can lead to further study in:

- Higher Business Management
- National 5 Administration
- National 5 Accounting

Where pupils do not satisfy the standard required to study National 5, it will be recommended that National 4 would be more suitable.

### **COMPUTING SCIENCE – THIRD YEAR**

### **Course Outline:**

### The course consists of three units:

- Software Design and Development
- Information System Design and
- Development Computing Science Project

### **Course Structure:**

### **Software Design and Development**

Learners will develop knowledge, understanding and practical problem solving skills in software design and development. Learners will develop computational thinking and programming skills through practical tasks using appropriate software development environments across a range of contemporary contexts. Learners will also explore the impact of contemporary software based applications on society or the environment.

### **Information System Design and Development**

Learners will develop knowledge, understanding and practical problem solving skills in information system design and development. Learners will implement practical solutions using appropriate development tools to create databases, web - based information systems, multimedia information systems (and/or hybrids of these). Learners will also develop an understanding of computer hardware, software, connectivity and security issues through a range of practical and investigative tasks.

### **Added Value Unit: Computing Science Project**

This Unit requires the learner to apply skills and knowledge from the other Units to analyse and solve an appropriate challenging computing science problem.

### **Assessment:**

All Units are internally assessed on a Unit-by-Unit basis or by combined assessment. A N4 Added Value Unit must be completed to gain a N4 qualification.

### **Progression:**

### Successful completion of this Award can lead to further study in:

National 5 Computing Science – see next page for detail

### **COMPUTING SCIENCE – THIRD YEAR**

### **Course Outline:**

### The National 5 Computing Science course consists of four units:

- Software Design and Development
- Computer Systems
- Database Design and Development
- Web Design and Development

### **Course Structure:**

### **Software Design and Development**

Candidates develop knowledge, understanding and practical problem-solving skills in software design and development, through a range of practical and investigative tasks using appropriate software development environments. This develops their programming and computational-thinking skills by implementing practical solutions and explaining how these programs work. Tasks involve some complex features (in both familiar and new contexts), that require some interpretation by candidates. They are expected to analyse problems, and design, implement, test and evaluate their solutions.

### **Computer Systems**

Candidates develop an understanding of how data and instructions are stored in binary form and basic computer architecture. They gain an awareness of the environmental impact of the energy use of computing systems and security precautions that can be taken to protect computer systems.

### **Database Design and Development**

Candidates develop knowledge, understanding and practical problem-solving skills in database design and development, through a range of practical and investigative tasks. This allows candidates to apply computational-thinking skills to analyse, design, implement, test, and evaluate practical solutions, using a range of development tools such as SQL. Tasks involve some complex features (in both familiar and new contexts), that require some interpretation by candidates.

### Web Design and Development

Candidates develop knowledge, understanding and practical problem-solving skills in web design and development, through a range of practical and investigative tasks. This allows candidates to apply computational-thinking skills to analyse, design, implement, test and evaluate practical solutions to web-based problems, using a range of development tools such as HTML, CSS and Javascript. Tasks involve some complex features (in both familiar and new contexts), that require some interpretation by candidates.

### **Assessment:**

Formative assessment takes places on an on-going basis through both classwork and homework.

### **Coursework Assignment**

This is an end of course assessment requiring the solution to an appropriately challenging computing science problem. It contributes towards 30% of the overall grade for Computing Science.

### **External Examination**

A formal Examination covering all four units of the course. It contributes 70% of the overall grade for Computing Science.

### **Progression:**

Pupils successfully completing National 5 certification can expect to progress onto Higher Computing Science offered in S5-S6. This in turn leads to an opportunity to progress into Advanced Higher Computing Science. Please note that computational thinking is an important aspect to Computing Science.

We would advise pupils embarking on Higher level Computing Science to have a minimum qualification of National 5 in Mathematics.

The Computing Science department also offer National Progression Awards in Games Development and Cyber Security.

After school Computing Science is a profoundly useful subject. Most if not all jobs involve the usage of computer systems and further study in Computer Science may result in gaining employment in an extremely lucrative, exciting and in-demand field of work.

### **ENGINEEERING SCIENCE – THIRD YEAR**

### **Course Outline:**

Pupils may progress beyond Level 4 and start to studying National 4 Engineering Science. The course helps candidates to develop an understanding of the far-reaching impact of engineering on our society. They learn about the central role of engineers as designers and problem-solvers, able to conceive, design, implement and operate complex systems.

Pupils will develop the ability to:

- apply knowledge and understanding of key engineering facts and ideas.
- understand the relationships between engineering, mathematics and science.
- apply skills in analysis, design, construction and evaluation to a range of engineering problems.
- communicate engineering concepts clearly and concisely, using appropriate terminology.
- develop an understanding of the role and impact of engineering in changing and influencing our environment and society.

### **Course Structure:**

The course develops skills in three main areas. Candidates are able to apply these skills through a range of contexts, within the broad discipline of engineering.

### **Engineering contexts and challenges**

Pupils will develop an understanding of engineering concepts by exploring a range of engineered objects, engineering problems and solutions. This allows them to explore some existing and emerging technologies and challenges and to consider the implications relating to the environment, sustainable development and economic and social issues.

### **Electronics and control**

Pupils will explore a range of key concepts and devices used in electronic control systems, including analogue, digital and programmable systems. They develop skills in problem-solving and evaluating through simulation, practical projects and investigative tasks in a range of contexts.

### Mechanisms and structures

Pupils will develop an understanding of mechanisms and structures. They develop skills in problemsolving and evaluating through simulation, practical projects and investigative tasks in a range of contexts.

### **Assessment:**

To pass the units, the practical models produced must be of a high quality and meet strict tolerances. Some short written tests on tools and their uses must also be completed. Course Assessment is based on the Course Project. There is no *external* exam

### **Progression:**

Pupils who successfully complete the National 4 course will progress onto National 5 Engineering Science. Successful completion could lead to Higher Engineering Science, and onto engineering-based apprenticeships or related College and University courses.

Entry Requirements: Pupils will be expected to have achieved and be secure in 4th level Mathematics and Numeracy. Pupils will be required to apply these skills throughout the course.

### **ENGINEEERING SCIENCE – THIRD YEAR**

### **Course Outline:**

Some pupils may progress beyond Level 4 and be working on National 5 Engineering Science outcomes. The course helps candidates to develop an understanding of the far-reaching impact of engineering on our society. They learn about the central role of engineers as designers and problem-solvers, able to conceive, design, implement and operate complex systems.

Pupils will develop the ability to:

- ♦ apply knowledge and understanding of key engineering facts and ideas.
- understand the relationships between engineering, mathematics and science.
- apply skills in analysis, design, construction and evaluation to a range of engineering problems.
- ♦ communicate engineering concepts clearly and concisely, using appropriate terminology.
- ♦ develop an understanding of the role and impact of engineering in changing and influencing our environment and society.

### **Course Structure:**

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Pupils will develop an understanding of engineering concepts by exploring a range of engineered objects, engineering problems and solutions. This allows them to explore some existing and emerging technologies and challenges and to consider the implications relating to the environment, sustainable development and economic and social issues.

### **Electronics and control**

Pupils will explore a range of key concepts and devices used in electronic control systems, including analogue, digital and programmable systems. They develop skills in problem-solving and evaluating through simulation, practical projects and investigative tasks in a range of contexts.

### Mechanisms and structures

Pupils will develop an understanding of mechanisms and structures. They develop skills in problemsolving and evaluating through simulation, practical projects and investigative tasks in a range of contexts.

### **Assessment:**

All course work units must be completed and this will include a number of formal end of unit assessments.

- A formal examination will be completed covering content from each unit to a National 5 standard. This will account for 69% of the overall course mark.
- A Coursework Assignment Task will also be required to be completed to a National 5 standard. This will account for 31% of the overall course mark.

### **Progression:**

Successful completion could lead onto Higher Engineering Science, and then onto engineering-based apprenticeships or related College and University courses.

Entry Requirements. Pupils will be expected to be working on National 5 level Mathematics. Pupils will be required to apply these mathematical skills throughout the Engineering Science course.

### **GRAPHIC COMMUNICATION – THIRD YEAR**

### **Course Outline:**

This course enables pupils to develop their imagination, creative ability and logical thinking using a variety of graphical techniques. This course is suited for pupils wishing to pursue a wide range of possible careers in science, graphic design, architecture, engineering and other broader career areas. It is offered at Level 4 but pupils may progress in their learning to work on either National 4 or 5. The topics covered involve producing a wide range of different drawing types using both manual and computer aided methods. This includes formal technical graphics, manual sketching and the use of colour, tone and texture.

### **Course Structure:**

The course will consist of 5 modules of work as follows:

**Sketching**— develops hand sketching methods to produce a range of both preliminary and production drawings used in the graphic design, engineering and architecture/construction industries. This encompasses pictorial sketching of Perspective, Planometric, Oblique and Isometric techniques.

**Formal Drawing (Part 1)** – introduces both hand sketching and formal drawing methods using a drawing board to produce production graphics used mainly in both the engineering and construction industries. This consists of Orthographic and Sectional Drawings.

**Formal Drawing (Part 2)** – continues the formal drawing methods previously learned and applies them to production graphics used mainly in the graphical design and consumer design industries. This includes Surface Developments of the basic forms of prism, pyramids, and cylinders.

**Knowledge and Interpretation** – considers the basic knowledge elements required to be able to produce a wide range of different drawings and graphics. This considers BS

Standards, Colour Application, Identification of Drawings and their use/purpose.

**CAD** – applies the use of computer aided design to the latest graphics and drawing methods used throughout industry. Covering both 2D and 3D Modelling as well as Desktop Publishing used in the production of Promotional and advertising graphics and presentations.

### **Assessment:**

All course work units must be completed and will include some formal end of unit tests.

- A formal Examination at N5 level covering drawing and knowledge contributes towards certification – 67%
- A continuously assessed Assignment Brief contributes to National Level 4 while National 5 has the Course Assignment covering Preliminary, Production and Promotional graphics worth 33%

### **Progression:**

Pupils successfully completing National 5 certification can expect to progress onto the National Level 6 course offered in S5-S6. This in turn leads into Advanced Higher and or Further Education and Industry.

### PRACTICAL WOODWORK – THIRD YEAR

### **Course Outline:**

This is a practical workshop-based course where pupils learn many skills that are appropriate to a wide range of applications. The course will develop skills in marking-out, cutting, shaping and machining materials. Apart from giving an insight into industrial practice, such studies help with the development of self-confidence, manual dexterity & control, perseverance, maturity and spatial awareness.

### **Course Structure:**

Practical skills in wood will be developed over the four course units:

### Bench Skills 1 - Flat Frame Construction

This unit concentrates on flat frame joints and the production of a model such as the Chopping Board.

### Bench Skills 2 - Carcase Construction

This unit concentrates on carcase joints and the production of a model such as the Shelving Unit.

### **Machining and Finishing**

This unit concentrates on the use of various fixed machines, power tools and finishing techniques. The wood lathe will be used to produce turnery such as handles for a tool box and or decorative features for a mirror.

### **Added Value Unit**

This project is completed towards the end of the course and will involve the manufacture of a product which will draw on the skills developed in the other units. An example of a suitable project is a coat rack.

A levy of £20 will be charged for year.

### Assessment:

To pass the units, the practical models produced must be of a high quality and meet strict tolerances. Some short written tests on tools and their uses must also be completed. Course Assessment is based on continuous assessment and the Course Project. There is no *external* exam.

### **Progression:**

Pupils studying this course can develop into a National 3, 4 or 5 course and may wish to pursue a career in one of the 'trades' such as joinery, plumbing, or other construction industry jobs. Pupils leaving school with this qualification will find a wide range of progression routes at College to further develop their skills. It is also the ideal preparation for an apprenticeship in one of the trades.

### Useful links for parents/carers

### **Nationals in a Nutshell**

To support parents' understanding of the new qualifications, the National Parent Forum for Scotland produced an excellent series of leaflets called "In a Nutshell" which summarises skills, experiences and assessment arrangements for most subjects at National 4 and National 5 level.

The NPFS also produced a series of 'Revision in a Nutshell' leaflets which provide practical support for revision in each subject at National 4 and National 5 Level.

You can then download or print the Nationals in a Nutshell for the subjects your child is studying by googling <a href="www.npfs.org.uk/nationals-in-a-nutshell">www.npfs.org.uk/nationals-in-a-nutshell</a> or clicking on the hyperlinks on the next two pages of this booklet.

### **Biology National 4**



### **Chemistry National 5**



### **Revision in a Nutshell**



### Other useful links for parents

### **SQA** related websites

• Subject information

www.sqa.org.uk/cfesubjects

### Other useful sites:

- National Parent Forum for Scotland
- BBC Bitesize

www.parentforumscotland.org www.bbc.com/bitesize

