## Kilmarnock Academy



New S4
Progression Pathways Booklet 2017-2018

## SUBJECT DESCRIPTIONS

## ADMINISTRATION AND IT

The study of this course will not only equip candidates with the level of competence required for using a range
 of software packages but will also enable them to apply their use to various administrative functions carried out in organisations. The Admin \& IT course is one which has proven very useful to students in the past by teaching them a number of skills which would equip them well for a wide number of jobs.

- everyone needs ICT skills whatever the job/rank they aim for
- everyone need to have problems solving, numeracy and oral/written communication skills
- administration gives students a good core skill


## What does the course involve?

The main purpose of this course is to develop your admin and IT skills so that you can contribute effectively to your workplace. The main aims of the course are to:

- develop understanding of administration in the workplace and the main laws that affect employees
- understand the importance of good customer care in an organisation
- develop excellent IT skills and use them to carry out administrative tasks
- develop your organisational skills e.g. to plan and organise events such as meetings

At National 5 level, the course is assessed by a 4 hour ( $2 \times 2$ hour) practical coursework which is completed in class - there is no theory element however the assessment will usually have tasks covering health and safety and customer care.

ART AND DESIGN (National 4 and National 5)

## Course Content:

Courses have a format of an Expressive Folio, a Design Folio and critical work.
The grade awarded is based on attainment in these three areas. At National 5 there is a written exam at the end of the course. The units are made up of distinct areas which follow on from each other.

## Design Folio:

Research, Development, Final Solution and Evaluation. Art and Design Studies (written)

## Expressive Folio:

Investigation, Development and Expressive Outcome. Art and Design Studies (written)

## Assessment:

Assessment is based upon the quality of all the units plus one written examination. The Art and Design written paper is 1 hr 10 minutes long and will cover both Expressive and Design studies.
Pupils will also need to produce Expressive and Design development and critical work for SQA verification.

The subject offers activities which promote discovery, an understanding of ideas and a means of expressing creativity visually.

This course encourages individuality, problem solving and the ability to express themselves through a range of media and techniques. Pupils who achieve a qualification in S 4 will be able to take either National 5 or Higher in S5/S6.

Art and Design qualifications are accepted points for all Colleges and Universities. Future course levels available to study - Masters, Honours Degree, Degree, HND, HNC, NC.

## Career Options:

Fine Art - Sculpture, Painting, Printmaking, Environmental Studies, Fine Art Photography, Stained Glass.

Design - Jewellery, Graphics, Illustration, Ceramics, Printer Textiles, Embroidery and Woven Textiles, Knitted Textiles, Interior Design, Product Design, Furniture, Animation, Theatre, Television and Film, Computer Graphics, Art and Design Historian, Art Conservation, Fashion Design.

## BIOLOGY

Biology is the study of life and living things. This includes humans and other animals, plants and micro-organisms.

In both the National 4 and National 5 courses pupils will
 study life at cell level in 'Cell Biology'; at organism level in 'Multicellular Organisms' and at whole planet level in 'Life on Earth.'

## Course content N5

The Cell Biology topic will include the study of cells and how they work; abnormal cell division and cancer; how DNA instructions control our bodies; the use of genetic engineering to improve life; understanding how plants work to let us increase food production to feed our growing human population.
The Multicellular Organisms topic will include the study of the potential uses of stem cells; the control of blood sugar and the causes and problems of diabetes; animal and plant reproduction and inheritance and the effects of lifestyle choices on human health. The Life on Earth topic will include the study of biodiversity and its importance to the planet. It will allow the examination of the many ways that humans affect all aspects of their environment. Finally, it will search for solutions to the problems caused by the growing human population.

In Biology pupils will develop and use their study skills extensively. They will design and carry out experiments and communicate their findings to others in a variety of ways, developing their scientific literacy skills. They will use the biological knowledge they gain to find solutions to some of the problems facing society today and in the future.

## Assessment

All National levels are similar.

They require pupils to:

- Pass 3 Unit tests; one per topic.
- Design, carry out and report on a piece of experimental work.
- Write a short report on an aspect of biology that affects society.
- Carry out an extended piece of research on a topical issue and write up the findings as a formal report.

A shorter piece of research on a topic at National 4 level is marked in school. It is known as the Added Value Unit. A longer piece of research and report on a topic at National 5 level is collected and marked by the SQA. It is known as the Assignment. The assignment contributes 20\% of the marks for the N5 qualification.
Pupils being presented for National 5 sit a final exam at the end of S4. This provides the remaining $80 \%$ of the marks for the National 5 qualification. It is marked by the SQA. There is no final SQA marked exam for National 4 pupils.

All Science courses are challenging and Biology is no exception. Pupils will need to work hard consistently in class and at home to be successful. There will be regular homework.
Biology requires reading, writing and mathematics skills.

Pupils who achieve National 4 Biology in S4 can go on to study National 5 in S5 or S6.
Pupils who achieve National 5 in S4 can go on to study Higher Biology over one or two years.

Careers that recommend a Biology background include:
Agriculturalist, animal handler, forester, ranger.
Medical careers- dentist, dietician, laboratory technician, microbiologist, nurse, occupational therapist, optometrist, paramedic, podiatrist, physiotherapist, prostheticist, radiographer, veterinarian, veterinary assistant, as well as beauty therapist, biochemist, biophysicist, environmental engineer and many others.

If pupils are thinking of a career in Biology they are advised to study Biology and at least one other Science; either Chemistry or Physics.

## BUSINESS MANAGEMENT

## Why Business is the right choice for you!



Choosing to study Business Management allows you to gain access to many different career paths such as marketing, fashion, events management, engineering international business and accountancy to name but a few. Most college and university course have a business component - so this course will be of great benefit to you. You will also get the opportunity to take part in a variety of business challenges including the Tom Hunter Challenge and The Coca Cola Real Business Challenge.

This course gives pupils an insight into today's business world and we will study how some very famous entrepreneurs built up their businesses. Our journey will take us through not only where there is a need for business and how the economy works but will also consider the areas of marketing, finance, human resource management and operations.

This course is not just about theory - you have to be able to say why you think a firm should make a particular decision, or discuss what you think a business should do. Therefore the best way to do that is to give you practical tasks such as undertaking a business research project, making and selling product s, creating TV and radio adverts, visiting local places of work to investigate how they do things etc.

The course is split between a 30 mark research project into an aspect of a local business and a 70 mark question paper during the main exam diet.

You will also get the opportunity to take part in a variety of business challenges including the Tom Hunter Challenge and The Coca Cola Real Business Challenge.

## CHEMISTRY

(National 3, 4 and 5)

At National 4 we expect pupils to gain the knowledge and skill to pass the internal examinations based on
 the topics below and provide a suitable base for going onto National 5. Pupils are also expected to complete an assignment, a short report and detailed experimental write ups.

At National 5 we expect pupils to gain the knowledge and skill to pass an external exam worth $80 \%$ of the overall marks awarded based on the topics below. Pupils are also expected to complete an assignment worth 20 marks for the external examination.
The course also provides a suitable base for more advanced study at Higher level and the Higher examination in fifth or sixth year.

Topics covered in S4:
Chemistry: Chemical changes and structure
Chemistry: Nature's Chemistry
Chemistry: Chemistry in Society

The Chemistry Qualifications are new and relevant in helping the pupils realise how chemistry is used in society and how it affects the world. Skills in investigation will be encouraged and developed. The course also gives pupils a suitable base for training and science related work in the future.

Careers in Chemistry include:
Analytical chemist, Chemical engineer, Healthcare scientist, clinical biochemist, Forensic scientist, Pharmacologist, Research scientist, Toxicologist and many more.
If pupils are considering a career in Chemistry they are advised to study Chemistry with at least one other Science; either Biology or Physics.

## DESIGN AND MANUFACTURE

## Rationale:

The two main aims of the design and manufacture course are to further develop a
 pupil's craft skills and their understanding of product design. Pupils will advance their appreciation of how, why, and where common materials are used. They will also discover how everyday products are designed and manufactured as well as how to design their own prototype product that they will manufacture in the workshop.

## Course content:

Pupils will learn about material properties through the manufacture of craft models. Models will incorporate the use of manufactured and natural woods, metals, and plastics, and involve manufacturing processes such as wood and metal turning, aluminium casting, forging, plastic vacuum forming, fitting and general bench work. Modern manufacturing techniques, such as laser cutting, 3D printing and computer numerically controlled routing, can now be taught alongside the equally important traditional craft methods at Kilmarnock Academy.

Design principles and problem solving skills developed earlier will be strengthened through the unit work required at National 4 and National 5. Craft skills and manufacturing processes learnt earlier in the course will also be reinforced in the course units in S4. The units lead on to the final course assignments and exam (only at National 5). It is hoped that the experience pupils have gained throughout the unit work will allow them to have the confidence to use modern equipment such as laser cutter, 3D printer or CNC router to communicate their design proposals.

## Progression:

In S4, pupils will hopefully achieve a National 4 or National 5 qualification in Design and Manufacture. This will allow them to return in S5 to improve their understanding and knowledge of the subject at National 5 and Higher respectively.

Design and Manufacture is aimed at pupils considering further or higher education and modern apprenticeships. Recently some of our pupils have received unconditional offers for university courses such as Product Design, Sports Engineering, CAD with Mechanical Engineering, and Automotive Engineering.

Many of our pupils also obtain modern apprenticeships; over the last
few years pupils have entered employment at local companies such as British Airways (Glasgow), BAE Systems (Prestwick), and Caledonian Paper Mill (Irvine).


Extra curricular activities have been prominent in this subject. F1 in schools Bloodhound car racing, VEX Robotics and the Weir Pumps Challenge have been national competitions that our pupils have competed in recently.

Above, Kristiana Hamilton collects the Young Engineer award at The Big Bang, Glasgow 2013.

## ENGLISH

In S3 pupils will be placed in classes that suit their individual abilities.
All pupils begin by following a combined course National $4 / 5$ - and this is reviewed as pupil progress is tracked throughout the year.


## What's the difference between National 4 and National 5?

The National 4 course is internally assessed and consists of 2 core units.
Analysis and Evaluation - (Reading and Listening) and
Creation and Production - (Writing and Talking)

The National 5 course mirrors these units at a higher level. It leads to an SQA exam and an externally assessed folio of 2 pieces of Writing. The National $4 / 5$ course:

- builds upon the Talking and Listening skills from S1, S2 and S3.
- develops close reading and pupils will work steadily on these skills throughout the session.
- enables pupils to study and write about literature.
- encourages pupils to write creatively and discursively.


## ENVIRONMENTAL SCIENCE

This course will develop pupils' understanding of environmental issues and sustainable practices, as well as developing their problem solving, investigative and experimental skills.


The course is covered in three units:

## Living Environment

This covers the topics of: interdependence; adaptation for survival; the impact of population growth and natural hazards on biodiversity; and the nitrogen cycle and the environmental impact of fertilisers.

## Earth's Resources

This covers the topics of: the responsible use and conservation of non-renewable and renewable resources; the formation and use of fossil fuels; the derivation and uses of materials derived from crude oil; the risks and benefits of different energy sources, including those produced from plants; the carbon cycle and processes involved in maintaining the balance of gases in the air, and the causes and implications of changes in the balance.

## Sustainability

This covers the topics of: the sustainability of key natural resources and possible implications for human activity; the interaction between humans and the environment and the impact of human activity on an area; the role of agriculture in the production of food and raw material and its environmental impacts and sustainability; society's energy needs and the impact of developments in transport infrastructure in a selected area; and development of sustainable systems.

Pupils will also do an Added Value Unit, which involves carrying out an in-depth investigation on an aspect of work they have studied. This is known as the Assignment.

This is an SQA National course. It involves study and assessment leading to a National 3 and National 4 award.

Pupils can also progress towards an award in National 5 Environmental Science.

## FASHION AND TEXTILE TECHNOLOGY

(National 4 and National 5)

## Course Content

Students will be creating inspirational fabrics and exploring surface decoration through fabric
 manipulation, free machine embroidery, fabric dying, printing, decorative and embellished techniques. Using these techniques, candidates will then construct the fabrics into interesting, individual textile items. These could be related to both fashion and interior design.

## Assessment

Assessment is based on folio work produced and an externally set practical assignment demonstrating the candidate's ability to plan, implement and evaluate.

## Entry Requirements

Fashion and Textile Technology is suitable for students who have an interest in Art and Design and who have an enthusiasm for fashion and textiles.

## GEOGRAPHY

Geography is an interesting, diverse and useful subject. It gives a valuable understanding of what makes our planet tick. Being a good Geographer means being interested in anything you see, hear or read about things which are happening to places and environments, both locally and worldwide.


## National 5

- Physical Environments e.g. Physical Environments e.g. Physical Environments e.g. Physical Landscapes and their management as well as weather.
- Human Environments e.g. World Population and issues in Urban and Rural landscapes.
- Global Issues e.g. Environmental Hazards and Health.


## Assessment

Pupils will sit an external examination and complete a course work assignment under exam conditions.

## National 4

- Physical Environments e.g. Physical Environments e.g. Physical Landscapes and their management as well as weather.
- Human Environments e.g. World Population and issues in Urban and Rural landscapes.
- Global Issues e.g. Environmental Hazards and Health.
- Added Value Unit - a personal study on an issue from physical environments, human environments or global issues.


## Assessment

There is no external assessment with National 4; however, learners must pass all of the required Units, including the Added Value Unit.

## Why Geography?

In many ways Geography is a unique subject as it is accepted as an entrance to some colleges and universities as both a Social Subject and a Science. The broad ranging nature of Geography is reflected in the types of careers to which Geography contributes e.g. tourism, surveying and meteorology. The transferable skills within the subject make Geographers particularly attractive to employers.

## GRAPHIC COMMUNICATION

## Rationale:

Communication is by the use of graphics and, in particular, by the use of technical graphics in
 construction, engineering and consumer contexts.

The creation (manually and computer generated) and understanding of drawings are generic skills useful in employment and as life skills in a world where communication increasingly relies upon graphics.

## Course content:

Pupils will develop knowledge and a practical application of sketching and drawing everyday items in orthographic and pictorial projections and creating colour illustrations, using both manual and computer-aided methods. Candidates will develop an understanding of how to use graphics to communicate more clearly and effectively. Candidates will also be made aware of the need for clear and accurate drawings and will gain knowledge of relevant British Standards.

Computers will be used in learning and teaching and candidates will work with computer-aided draughting (CAD) and desktop publishing packages, thus widening their appreciation of the role of information technology within Graphic Communication and the world today. In addition, candidates will have the opportunity to develop analytical thinking and creativity.

The Course makes a significant contribution to developing technological capability.

## Progression:

In S4, pupils will hopefully achieve a National 4 or National 5 qualification in Graphic Communication. This will allow them to return in S5 to improve their understanding and knowledge of the subject at National 5 or Higher.

Graphic Communication is aimed at pupils considering further or higher education. Pupils considering engineering or architecture courses will find the Technical Graphics course unit (at N5 and Higher) to be extremely beneficial.
Many of our pupils also obtain modern apprenticeships; over the last few years pupils have entered employment at local companies such as British Airways (Glasgow), BAE Systems (Prestwick), and Caledonian Paper Mill (Irvine).

## HISTORY

The History course will further develop student skills in extended writing, enquiry, handling sources and evaluation

of materials. Students are encouraged to research the past and develop a strong sense of heritage and how the past helped form who we are today.

Pupils choosing History will study three distinct units.

## Course Content:

Unit 1 -Scotland and the Great War
This area of study considers the First World War and how that affected Scotland, it looks at the impact of the war both in the trenches and at home. It also considers how the peace was implemented and how Scotland was affected after the war.

Unit 2 - Britain - the Atlantic Slave Trade This unit focuses on the part Britain played in the 'Triangular Trade' as it was called. The economic benefits slavery brought to Britain will be studied, the treatment of slaves in Africa, the journey to the Americas and slavery in the West Indies. Finally the abolition of slavery in Britain and its colonies will be considered.

## Unit 3 - Europe - Germany 1918 to 1939

This unit looks at the rise of Hitler and the German Nazi Party, then considers Nazi rule in Germany up to the outbreak of the World War Two.

## Assessment:

There will be ongoing assessment throughout the course, and a Preliminary exam in S4 All pupils are encouraged to aim high.

## Progression:

Pupils can study Nationals and Higher in S5/6

## Careers:

History gives an excellent foundation for University learning and most managerial and professional jobs recognise that History gives a solid grounding in the techniques of research and report writing. Further to this employers benefit from the presentational skills, teamwork and emphasis on literacy that students experience in the course.

## HOSPITALITY: PRACTICAL COOKERY

(Access 3, National 4 and National 5)
The main focus of these courses is to give learners opportunities to develop cookery related knowledge, understanding and skills, and to use them at home, in the wider community and ultimately in employment.

Units include

- Cookery skills; processes and techniques
- Understanding and using ingredients
- Organisational skills for cooking


## Assessment

At the end of each unit there will be a written and practical assessment for National 4 and 5

National 4 sit a mandatory Added Value Unit.
Pupils produce a two course meal for a given number of people, safely and hygienically.

## National 5 Practical Activity

Pupils plan, prepare and present a three course meal for a given number of people to a given brief. The brief will specify the three dishes to be produced.

## MATHEMATICS

All pupils will take Mathematics and everyone will have the opportunity of following an SQA accredited course; this could be National 3 Lifeskills Mathematics, National 4 Mathematics or National 5 Mathematics depending on ability and progress.


Mathematics is the study of measurement, properties and relationships using numbers and symbols and can help us to make sense of the world around us. Mathematics can be used to model real-life situations and can equip us with the skills we need to interpret and analyse information, simplify and solve problems, assess risk and make informed decisions.

Class tests will be set approximately every 6 weeks. From these and other pieces of work, evidence will be collected to enable pupils to gain National 3 Lifeskills and National 4 qualifications. The National 5 award requires the gathering of internal evidence but pupils also need to pass an externally set and marked final exam.

## Lifeskills Mathematics - National 3

The National 3 Lifeskills Mathematics Course will help learners to become numerate, to make sense of the world around them and to function responsibly and independently in everyday life.
The Course, which includes the freestanding Unit in Numeracy at SCQF level 3 , will motivate and challenge learners by enabling them to select and apply mathematical and numerical skills in a variety of mathematical and real-life situations.
The Course includes the study of number, money, shape, space and measurement in everyday life, allowing individuals to interpret data and tackle real-life situations. It is designed to develop the learners' skills relevant to learning, life and work in an engaging and enjoyable way. The Course develops confidence in the subject and a positive attitude towards further study in mathematics and other subject areas which use mathematics.

The aims of this Course are to enable learners to:

- interpret real-life situations involving mathematics
- investigate the use of basic mathematical ideas and number processes in real-life contexts
- select and apply basic mathematical and numeracy skills in real-life contexts
- interpret and use the results of calculations, measurements and data to make informed decisions
- communicate mathematical information in an appropriate way

The National 3 Lifeskills Mathematics course consists of 3 Units

- Manage Money and Data
- Shape, Space and Measures
- Numeracy

To achieve the National 3 Lifeskills Mathematics Course, learners must pass all of the required Units. National 3 Courses are not graded.

## Mathematics - National 4

The National 4 course builds on learners previous experiences from the BGE. National 4 covers some of the more technical aspects of Mathematics (like Pythagoras and Trigonometry) but also extends previous learned skills in Numeracy, Algebra and Geometry.

In following the Mathematics National 4 course pupils should be:

- Developing their understanding of straightforward mathematical skills in Algebra, Geometry, Trigonometry and Statistics
- Using mathematical techniques and reasoning skills to solve mathematical problems
- Developing a positive attitude to mathematics based on an understanding of its use in real-life situations.
- Becoming skilled in the use of mathematical vocabulary and exploring mathematical ideas.
- Becoming confident in problem solving.
- Developing an understanding of the importance of accuracy
- Interpreting, communicating and managing information in mathematical form
- Developing logical reasoning skills
- Communicating solutions using presentation skills
- Developing decision making skills
- Developing leadership and teamwork skills through group activities.


## The Mathematics National 4 course consists of 3 Units:

- Expressions and Formulae
- Relationships
- Numeracy

There is also an Added Value Unit which is in the form of a whole course test.

To gain a pass in National 4, learners must pass all Units, including the Added Value Unit. Units are assessed as pass or fail by the school but other evidence can also be used for assessment such as class work, class tests etc. The Added Value Unit is in two parts - non calculator and calculator. The overall course award is either pass or fail.

National 4 can progress onto National 5 Mathematics, National 5 Lifeskills Mathematics or National 4 Lifeskills Mathematics.

## Mathematics - National 5

The National 5 course builds on learners previous experiences from the BGE and the National 4 course. Learners must have already achieved a pass at National 4 to be able to select the National 5 course. National 5 introduces many of the more technical aspects of Mathematics (like Trigonometry, Quadratic Theory, factorisation, simultaneous equations) and is a necessary precursor to the Higher mathematics course.

In following the Mathematics National 5 course pupils should be:

- Developing an understanding of applying mathematical skills in Algebra, Geometry, Trigonometry, and Statistics
- Developing skills in simplifying and solving problems
- Developing skills in selecting and applying mathematical techniques to real-life contexts
- Making connections and informed predictions
- Using mathematical language and exploring mathematical ideas
- Developing resilience and confidence in problem-solving
- Developing analytical and evaluative skills
- Interpreting, communicating and managing information in mathematical form
- Developing logical reasoning skills
- Assessing risk and making informed decisions
- Developing creativity and the ability to think in abstract ways
- Manipulating abstract terms to solve problems and generalise

The Mathematics National 5 course consists of 3 Units:

- Expressions and Formulae
- Relationships
- Applications

There is also an Added Value Unit which is in the form of a whole course external exam. The Course Assessment consists of two Question Papers (exams marked by the SQA) and is graded A to D.

National 5 can progress onto Higher Mathematics or National 5 Lifeskills Mathematics.

## Modern Languages

Modern Languages are important for all sorts of things - holidays, meeting new people, future employment and further study. Did you know that
 you can earn an extra 10-15\% on your salary if you are proficient in the use of a modern foreign language? Languages are being increasingly used on the internet and knowing another language can open up lots of new opportunities.

## Myths about Language Learning

Everybody speaks English - only 6\% of the world's population speak English as a first language. 75\% of the world's population don't speak any English at all!

You have to be fluent for languages to be of any use - a little language goes a long way - most employers are looking for conversational ability in the foreign language.

## Benefits of Language Learning

- Better understanding of different cultures
- Improved self confidence
- Enhanced ability to build new relationships
- Improved literacy and reading skills
- Enhanced problem solving, interpersonal and communication skills
- Increased employability


## FRENCH

National 4 and National 5

Course Content: The National 4 and 5 courses include many relevant and up to date topics which reflect the interests of teenagers today. Everyday topics such as holidays, families and friends, relationships, hobbies and how you spend your leisure time, health issues, use of social media and future plans are all covered in these courses.

Depending on ability, pupils will either follow the National 4 or the National 5 course. Both courses offer opportunities to continue with further study of French.

Assessment: All pupils will be assessed in the skills of Reading, Writing, Speaking and Listening in the foreign language in classes set by ability. Authentic topic material is exploited and the use of ICT is encouraged.

## MODERN STUDIES

Pupils can choose to study Modern Studies at National 4 or National 5 level. Entry to study National 4 or National 5 is at the discretion of the Modern Studies Department and on the advice of guidance teachers.

Modern Studies develops in learners a greater understanding of the contemporary world and their place in it. The purpose of Modern Studies is to develop learners' knowledge and understanding of contemporary political and social issues in local, Scottish, United Kingdom and international contexts. In these contexts, learners will develop an awareness of the social and political issues they will meet in their lives.

Both National 4 and National 5 courses have four mandatory units, including a Modern Studies project. Within each unit there is a considerable degree of flexibility in themes which can be studied to allow personalisation and choice.

In terms of course content, the four units of study are as follows: 1) Unit 1 - Democracy in Scotland and the United Kingdom

Learners have a choice of contexts for study which will be drawn from either the Scottish political system or the UK political system.
2) Unit 2 - Social Issues in the United Kingdom

Learners have a choice of social issues within Scotland and the UK. Contexts for study will focus on either social inequality or crime and the law.
3) Unit 3 - International Issues

Learners have a choice of contexts for study. Contexts for study can be either a socio-economic and political study of another contemporary society or an international issue.
4) Unit 4 - Modern Studies Project

Learners will choose an issue for personal study drawn from political, social or international contexts. They will research their chosen issue and communicate their findings.

To achieve the Modern Studies National 4 course, learners must pass all of the required units, including the project. National 4 courses do not have an externally assessed exam. To gain the award of the National 5 course, learners must pass all the units as well as the course assessment which consists of the project and an externally assessed question paper.

Modern Studies makes a distinctive contribution to the curriculum by drawing on the social sciences of politics, sociology and economics and, where appropriate associated ideas drawn from other social subjects. It thereby adopts a multi-disciplinary approach.

Modern Studies provides an entry qualification for study in further education and for entry into a diverse range of occupations and careers.

## MUSIC

The National $3 / 4 / 5$ Music course aims to enrich the lives of pupils through practical involvement in music.

The course aspires to develop skills as musicians,
 enabling them to achieve the ability required to perform and create music.

Learners will expand their knowledge and understanding of music, gaining experience of identifying music concepts and styles. Learners will:

- learn how to apply knowledge of simple compositional techniques through composing, arranging or improvising
- demonstrate basic knowledge of a range of music concepts, musical literacy and styles/genres of music
- gain knowledge of the social and cultural influences on music
- develop the ability to reflect on their own development of technical and musical performing skills through regular practice/rehearsal
- apply technical and musical performing skills while exploring a range of music
- gain knowledge of basic skills and simple techniques relating to the creative use and application of music technology
- develop the ability to evaluate their own work and identify areas for improvement
- develop the ability to work independently and take responsibility for their own learning.


## Assessment

Pupils will be assessed on performing, composing and listening. Marks will be awarded for performance on two instruments or one instrument and voice and listening/literacy question paper.
Performance $=60$ marks
Listening $=40$ marks

Compositions will be judged on a pass/fail basis. They will not contribute a mark towards the final grade but a pass is required for a course award.

## Performances will be judged on:

- Melodic accuracy/intonation
- Rhythmic accuracy
- Maintaining the tempo and flow of the music
- Demonstrating musicality through mood and character and tone dynamics (where applicable)


## Listening exam/ Question paper will test:

- An understanding of the concept content for the Course
- The ability to identify concepts in a range of styles, and in straightforward and more complex contexts
- Knowledge and applied use of musical literacy
- The ability to identify and analyse the use of compositional techniques


## MUSIC TECHNOLOGY

The purpose of the National $4 / 5$ Music Technology Course is to enable learners to develop their knowledge and understanding of music technology and of musical concepts, particularly those relevant to 20th and 21st century music. Learners will engage in the development of technical and creative skills through practical learning. This Course will provide opportunities for learners to develop their interest in music technology and to develop skills and knowledge relevant to the needs of the music industry.

The aims of the Course are to enable learners to:

- develop skills in the use of music technology hardware and software to capture and manipulate audio
- use music technology creatively in sound production in a range of contexts
- develop skills in musical analysis in the context of a range of 20th and 21st century musical styles and genres
- develop a broad understanding of the music industry, including a basic awareness of implications of intellectual property rights
- critically reflect on their own work and that of others.

While developing their knowledge of music and their skills in using music technology, learners can work independently or in collaboration with others. These activities and approaches to learning will help learners to plan and organise, to make decisions and to take some responsibility for managing their own learning and their interactions with others. The practical and experiential nature of the Course gives learners opportunities to show imagination, creativity and technical problem-solving skills as they develop, review and refine their musical ideas and use music technology for specific effect.

Course assessment structure

Component 1 - assignment = 70 marks
Planning the production $=15$ marks
Implementing the production = 45 marks
Evaluating the production = 10 marks
Evidence should include:

- a formal plan for the production, which includes explanations and justifications for all decisions relating to technological and musical aspects of the production (in written, electronic and/or oral form)
- the completed audio master
- a record of progress through the task (such as an electronic log or diary maintained by the learner)
- a short report evaluating the production (in written, electronic and/or oral form)

Component 2 - question paper $=30$ marks
It will consist of questions in response to music excerpts in a range of 20th and 21st century styles and genres. A range of question types will be used, assessing understanding of relevant musical and technological concepts.
Total marks = 100 marks

## National 4

## Course structure

The Course consists of 3 Units:

## 1. Music Technology Skills (N4)

2. Understanding 20th and 21st Century Music (N4)
3. Music Technology in Context (N4)

To achieve the National 4 Music Technology Course, learners must pass all of the required Units, including the Added Value Unit.

## National 5

## Course structure

The Course consists of 3 Units:

1. Music Technology Skills (N5)

## 2. Understanding 20th and 21st Century Music (N5)

## 3. Music Technology in Context (N5)

## Course assessment structure

Component 1 - assignment 70 marks
Component 2 - question paper 30 marks
Total marks: 100 marks

To gain the National 5 award, the learner must pass all of the Units as well as the Course assessment.

## PEOPLE and SOCIETY

"People and Society" is a N4 social subject course that utilises various disciplines (history, geography, modern studies, psychology, sociology etc.) to explore topic based study. There are 4 units:

1. Investigating Skills
2. Comparing and contrasting
3. Making Decisions
4. Added Value


The content of each unit is varied and is skills based. The topic of each unit will be determined by the interests of the class. Previous examples have included looking at conflict in Scotland and looking at
the geography of local estates. The course activities are often delivered using outdoor education activities. Maximum class size is 12 pupils.

## PERSONAL DEVELOPMENT AWARD

Curriculum areas include:

- Personal, Interpersonal and Team Skills
- Citizenship and Community Awareness
- A Community Based Project
- Entrepreneurship and Enterprise

- Preparation for the World of Work

The young people working in Personal Development benefit from some extremely positive outcomes such as improved confidence and self-esteem, enhanced communication and organisational skills, and improved leaver destinations. The course is designed to educate pupils and better equip them for the workplace.

## PHYSICAL EDUCATION

Through practical involvement in physical education, National $4 \& 5$ aims to enrich the lives of pupils who will develop skills, knowledge and understanding and a positive attitude towards life-long involvement in
 sports.

Both the National 4 \& 5 courses will look at how Mental, Emotional, Social and Physical factors (MESP) can impact on performance. Pupils will be asked to examine their own performance in sport and try to identify ways/approaches in which they can improve.

## Course Requirements

- Pupils must have a good track record of bringing PE Kit
- Priority places will be given to those pupils who have never/rarely forgotten kit
- In instances where letters have been sent home/guidance contacted due to no kit, pupils will be encouraged to consider other options
- Pupils will be expected to remove all piercings during practical activities
- Pupils will be unable to participate in PE if piercings are not removed
- It is strongly discouraged that pupils get piercings during the course whereupon they are unable to remove them

| National 4: Course Content |  |  |
| :---: | :---: | :---: |
| Performance Skills Unit | FIP Unit | Added Value Unit Performance |
| - Demonstrate a range of movement and performance skills <br> - Working cooperatively with others <br> - Some body and spatial awareness <br> - Techniques, composition and tactics | - Learning through theory and practical lessons <br> - Collect data on performance <br> - Understand some of the MESP factors that impact on performance <br> - Describe the effects of MESP factors on performance | - Competitive and demanding environment for performance <br> - Choice of activity to perform in <br> - Prepare - Perform Evaluate <br> - Compete with and against neighbourhood high schools |


| National 5: Course Content |  |  |
| :---: | :---: | :---: |
| Performance Skills Unit | FIP Unit | Portfolio |
| On-going assessment <br> Assessed in minimum of 2 activities throughout the year <br> Demonstrate consistency in: <br> - A comprehensive range of movement and performance skills <br> - Working cooperatively with others <br> - Body and spatial awareness <br> - Techniques, compositions and tactics <br> One off performance worth 60\% of total mark | - Demonstrate knowledge and understanding of the MESP factors <br> - Investigate the effects of MESP factors on performance <br> - Prepare and implement a development plan to improve performance <br> - On-going assessment through log book <br> - The KU gained from the FIP will aid with completing the portfolio as well as act as a starting point in the lead onto Higher | - Portfolio provides evidence of a personal performance development plan which the learner has embarked on to help improve performance <br> - Worth $40 \%$ of total marks <br> - Evidence collated by learner in the form of a logbook, diary, development record etc |

## PHYSICS

National 4 and 5

The National 5 course will provide a basis for
 those pupils who wish to further their understanding of Physics. It is recommended that pupils studying this course are also undertaking the National 5 Mathematics course as Physics contains significant mathematical content. Pupils will be expected to learn how to rearrange formulae, solve equations and use scientific notation. It is the recommended course for those wishing to proceed to Higher Physics.

Through learning in physics, learners develop their interest in and understanding of the world. They engage in a wide range of investigative tasks which allow them to develop important skills to become creative, inventive and enterprising in a world where the skills and knowledge developed by physics are needed across all sectors of society.

Physics courses encourage the resourcefulness which leads to becoming a confident individual. Successful learners in physics think creatively, analyse and solve problems. Physics can produce responsible citizens, through studying the impact it makes on their lives, on the environment and on society.

These Courses allow learners to understand and investigate the world in an engaging and enjoyable way. They develop learners' ability to think analytically creatively and independently and to make reasoned evaluations. The Courses provide opportunities for learners to acquire and apply knowledge, to evaluate environmental and scientific issues, to consider risk and to make informed decisions. This can lead to learners developing an informed and ethical view of complex issues. Learners will develop skills in communication, collaborative working and leadership, and apply critical thinking in new and unfamiliar contexts to solve problems.

## Courses and Detail

The courses consist of three 40 hour units which are described below:

## Dynamics and Space: 40 hours

Velocity and Displacement - Vectors and Scalars; Velocity-time graphs; Acceleration; Newton's Laws; Projectile Motion; Space Exploration; Cosmology

## Electricity and Energy: 40 hours

Conservation of Energy; Electrical charge carriers and electric fields; Potential difference (voltage); Practical electrical and electronic circuits; Ohm's Law; Electrical Power; Specific Heat Capacity; Gas Laws and the kinetic model.

## Waves and Radiation: 40 hours

Wave parameters and behaviours; Electromagnetic Spectrum; Light; Nuclear radiation

In all 3 units, pupils will further their understanding of units and prefixes, significant figures and scientific notation.
Pupils will improve their practical laboratory skills by carrying out experiments on a regular basis and analysing the data they generate. They will be expected to write up a formal scientific investigation based on practical experiments they have carried out as part of a team. They must also carry out a research task based on an area of topical Physics which they will then write up formally.

In addition, there is a marked research project. The N4 assignment is called the Added Value Unit. In N5 the assignment is worth 20 marks towards the final grade. The research assignment requires pupils to apply skills, knowledge and understanding to investigate a relevant topic in physics and its effect on the environment and/or society.

To gain an award at National 4 or 5 , pupils will be expected to pass three internal assignments (NARs).
N5 requires pupils to sit a final 2 hour externally marked exam which consists of a multiple choice paper worth 20 marks and an extended answer paper worth 60 marks. The 20 marks from the assignment make up the total of 100 marks.

## Careers in Physics include:

Structural engineer, material scientist, architect, mechanical engineer, science journalist, particle physicist, sound engineer, surgeon, gravity researcher, pyrotechnician, climate change researcher, renewable energy manager and many more.

## PRACTICAL WOODWORKING

## Entry requirement:

No specific entry requirements at National 4 \& 5 apart from an interest in craft and making objects from wood.

## Rationale:



The course is of a practical nature, is workshop-based and provides many skills which are appropriate to a wide range of applications. The Course will develop skills in marking-out, cutting, shaping and finishing wood based materials, as well as adjusting and maintaining a range of hand tools. Apart from giving an insight into industrial practice, such studies help with the development of self-confidence, manual dexterity and control, perseverance, maturity and spatial awareness.

## Course content:

The course comprises of three units: Bench Skills 1 (Flat Frame Construction), Bench Skills 2 (Carcase Construction), and Machining and Finishing. The Bench Skills units include developing experience of reading and interpreting drawings, marking out, and manufacturing using common hand tools. Pupils will make a range of woodworking joints.

They will also learn how to apply practical skills and adopt safe working practices in the use of common machine and power tools for the manufacture of a finished machined product.

## Assessment:

To gain the course award, the candidate must achieve a pass in all component Units as well as the Course Assignment. The Course project will be internally assessed and externally verified.

## Progression:

Pupils who study this course often have an interest in traditional skill based jobs like joinery, plumbing, electrician, stone masonry, motor engineering etc. but it is also taken frequently by scholarly pupils who seek a respite from their more academic subjects.

They often find the work enjoyable and therapeutic. In S5, pupils can experience the Practical Metalworking course at National 4\& 5 which follow a similar format as this course with bench skills and machine skills being developed this time with metal, most often mild steel as the main material.

## RELIGIOUS MORAL AND PHILOSOPHICAL STUDIES

## National 4/5: Religious, Moral and Philosophical Studies What will I learn?

The main aims of the Course are to enable you to develop:

- The ability to understand and reflect on religious, moral and philosophical questions and how they affect the world we live in

- A range of skills including investigating and describing religious, moral and philosophical questions and responses, making comparisons, and the ability to give your own viewpoints with thoughtful reasons to back them up
- Straightforward knowledge and understanding of beliefs, practices and sources related to world religions
- Straightforward knowledge and understanding of religious, moral and philosophical questions and responses to them


## Unit 1: World Religion

In this Unit, you will develop

- Knowledge and understanding of Christianity through studying some key beliefs and practices and the contribution these make to the lives of followers.


## Unit 2: Morality and Belief

- In this Unit you will develop skills to describe and express views about a contemporary moral question or response to an issue. Topic: Religion and justice e.g. crime and punishment; death penalty
- Pupils will work on presenting their knowledge and understanding of contemporary moral questions with religious and nonreligious responses to these moral issues.
- There will be a range of options for you to choose from to allow for personalisation and choice.


## Unit 3: Religious and Philosophical Questions

In this Unit you will develop skills to describe and analyze religious and philosophical questions and responses. During this part of the course we will focus on arguments like Design, Evolution, and First cause, Big Bang and Suffering and Evil. Looking at evidence for and against the arguments.

Unit 4: N4 Added Value Unit/ N5 Assignment: In this Unit, you will be able to select an issue or topic of your choice for personal study drawn from religious, moral or philosophical contexts. You will research your chosen issue or topic and communicate your findings.

## N5 Assessment

- Component 1 - Exam - question paper 60 marks ( 20 marks for each unit)
- Component 2 - assignment 20 marks (as detailed above in Unit 4)
- Total marks 80 marks


## PART 2

## SUBJECT CHOICE

1. The choice of science subjects is very important. Physics and Chemistry are useful subjects, both individually and in combination. For some careers, Chemistry and Biology are a preferred combination e.g. some branches of Laboratory Technology, Dietetics. In general, Biology should not be taken as a substitute for Chemistry. However, Higher Biology is required for Medicine at Glasgow University.
2. Courses in Chemistry, Physics and Biology will be offered at Access 3, National 4 and National 5. Pupils will be advised by the Departments which level will be most suited to their needs and abilities.
3. Although a National pass in a language other than English is not in itself an essential requirement for many jobs, it is often a necessary condition of entry to certain courses in Higher education, e.g. many University courses.
4. Art or Music is essential for related Vocational Courses e.g. Schools of Art or Architecture, Colleges of Music. These subjects are useful for some other careers too e.g. teaching (primary), speech and drama, photography, etc.
5. Pupils considering Technician apprenticeships in building or engineering should remember that suitable combinations of subjects are important. The most essential are English, Mathematics and Physics. Design and Manufacture and Graphic Communication are beneficial with National passes at levels 4 or above.
6. Pupils who wish to become craft apprentices (e.g. fitters, welders, millers, turners, joiners, bricklayers, plumbers etc) are all advised to
take Maths, Design and Manufacture, Graphic Communication, English and a suitable science subject. Although National exam passes are not always formal requirements, competition is so fierce for the places available that good National passes in some of the above subjects would be an advantage.
7. Art and Design is essential for entry into Specialist Courses e.g. Art and Design Colleges. There are many other careers where qualifications in Art and Design are beneficial. e.g. Art Administration, Art historian, Promoter, Event's Organiser, Architecture, Publishing, Museums, Conservation and Restoration, Community Arts, Colour analyst, Advertising, Marketing, Product/Engineering, Retailing Buyers (Retailers), Fashion Forecasters, Landscape Architecture, Nursery Nurses, Childminders, Primary School Teachers, Hairdressing, Antiques, Catering, Multi Media.
8. Pupils seeking Engineering careers via university will nearly always require Maths and Physics. Design and Manufacture and Graphic Communication will also be beneficial to engineering and architecture courses.
