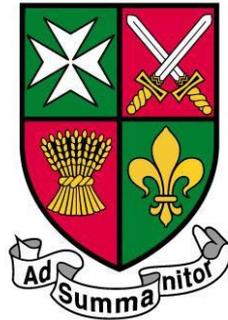


# JORDANHILL SCHOOL



S2 → S3

## COURSE CHOICE BOOKLET

2019

## **COURSE CHOICE FOR S3: SIGNIFICANT DATES AND EVENTS 2019**

<b>Tuesday 29<sup>th</sup> January</b>	<b>S2 Parents' Information &amp; Careers Evening 7-8.30pm</b>
<b>Thursday 31<sup>st</sup> January</b>	Pupils enter their initial course choices on the Jordanhill School Portal
<b>Wednesday 6<sup>th</sup> February</b>	<b>S2 Parents' Evening 7.00 - 9.30 pm</b> (Subject Teachers)
<b>Monday 11<sup>th</sup> February</b>	<b>Deadline for all choices to be entered on Portal (pupils can update choices post Parents' Night during lunchtimes at any of the school networked pcs.)</b>
<b>Thursday 14<sup>th</sup> February</b>	Pupil interviews with Head of House begin.

**Any renegotiation of courses will take place in the period leading up to the Easter Holidays.**

<b>Monday 3<sup>rd</sup> June</b>	<b>New timetable begins</b>
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## Introduction

This booklet together with the information published on our web site is designed to provide pupils and parents with the insights necessary to make informed choices about the courses they will embark upon in June 2019 and see through to certification in 2021.

It is important that all pupils have a balanced curriculum, which keeps open as many career options as possible. In Jordanhill School, all pupils will study the **core** subjects:

- ◆ **English**
- ◆ **French**
- ◆ **Mathematics**
- ◆ **Science Subject** (one or more from Biology, Chemistry and Physics)
- ◆ **Social Science Subject** (Geography, History, Business Management)

This booklet is designed to take you through a number of thought processes in a logical fashion

- ◆ What courses will suit me?
- ◆ What will I experience in S3?
- ◆ Pathways to S4
- ◆ Pathways to S5 and beyond

## Choosing Suitable Courses

Decisions about which courses to choose for S3/S4 should be based upon

- ◆ your aptitude and potential in each subject
- ◆ your interest and motivation
- ◆ the need to ensure that no realistic career options are closed prematurely
- ◆ possible progression routes in S5/S6, Further and Higher Education including through the Glasgow City Senior Phase Programme and Foundation and Modern Apprenticeships

The choice of a subject is a commitment to study that subject for **two years**. It is essential, therefore, that you embark on your chosen courses in a mature and responsible way.

Each of your teachers in S2 will have advised you of the level you are currently working at.

In the 'core' subjects if you are hoping to progress to National 5 in S4, then you would hope to be **secure at Level 3** in your S2 report in that subject.

For subjects outwith the core, aptitude and interest are more important, but the overall level at which you are working in that subject and across all subjects will provide a general indicator as to whether you might progress to National 4 or National 5 in S4.

## Courses in S3

Teaching programmes in S3 draw upon

- ◆ Any key level3 Experiences and Outcomes not covered in S1 – S2
- ◆ Relevant level 4 Experiences and Outcomes
- ◆ Appropriate elements of National 4 and 5 courses both to prepare you for these courses and to assess your capacity to respond to the challenges therein.

They also

- ◆ Continue to develop the skills for learning, life and work integral to the course and for progression

In S3 you do **NOT** start on National 4 and then progress on to National 5.

In many subjects the pathway you take through S3 and into S4 (next section) will be determined by how well you cope with the demands of the course in S3. In some subjects you will be offered specific advice based on progress to date. We do this so that the needs of individuals can be built into the timetable from the outset

- **Mathematics**

This could be at N3, N4 or N5 depending on how each pupil copes.

- **Modern Languages**

French is compulsory until the end of S4 for all pupils. Some pupils will be advised to follow a programme leading to N4 from the outset.

In S3, **in addition to French**, pupils can also opt to study a second foreign language (Mandarin or Spanish) at N5 level. Only those who have shown an aptitude for language learning and developed significant strengths to date in Mandarin or Spanish should consider either of these courses. If the classes are oversubscribed, the department will allocate places on merit.

- **Sciences**

A relatively small number of pupils seek to do all **3 sciences** – Biology, Chemistry and Physics. Due to the restrictions this will place on your options for progression in S5, this is only recommended for pupils who have **significant strengths across the sciences and in mathematics**. You will be asked to provide a clear rationale for this choice. It is worth noting that pupils have the option of studying two sciences in S3/4 and S5 and can pick-up the third science in S6.

- **Social Science Subjects** (Business Management, Geography, History,)

Pupils are advised to choose one or, at most, two social subjects. **Given the limitations on choice and progression beyond S4, pupils cannot select all three social subjects.**

## Pathways in S4

In most classes there will be a range of pupils who will potentially follow different pathways in S4. Typically, most will target N5, some will complete N4 and a small number will complete N3. Please note that it may not be possible to offer all courses at all levels as this will be dependent on uptake.

For pupils following a course leading to certification at N5 level, where it becomes obvious that achievement of an N5 course pass (grade A-C) in the final exam is unlikely, pupils may be advised to complete N5 Units and will not sit the final N5 exam. This pathway is designed to provide pupils with recognition of their achievements to date and to provide a stepping stone for future studies. Such a decision would be discussed with the pupil and parent at an appropriate time.

Our aim is that the school, pupils and parents develop a shared understanding of how you are coping with the demands of your S3/4 course so that we can offer detailed guidance as to which of the pathways will lead to success in S4 and then to worthwhile progression in S5. The reports and course choice advice offered in February following the S2 examinations form part of that guidance.

Departments will use the results of **all** assessments (class tests, internal mock exams etc.) to offer advice on the best pathway for each pupil. In some instances the pathway may be fixed from the outset, during or at the end of S3. In others the final decision may be deferred until the outcomes of the S4 mock examinations are known.

As there are no final question papers (external exams) at N4, the S4 mock exams are focused on N5 level work.

If the S4 mock exam result indicates that a pupil is not coping with work at N5, then presentation will be recommended at N4.

Both pupils and parents will be consulted prior to the presentation level being finalised.

### Criteria to Progress to National 5

As a broad indicator, candidates progressing to National 5 will be expected to have

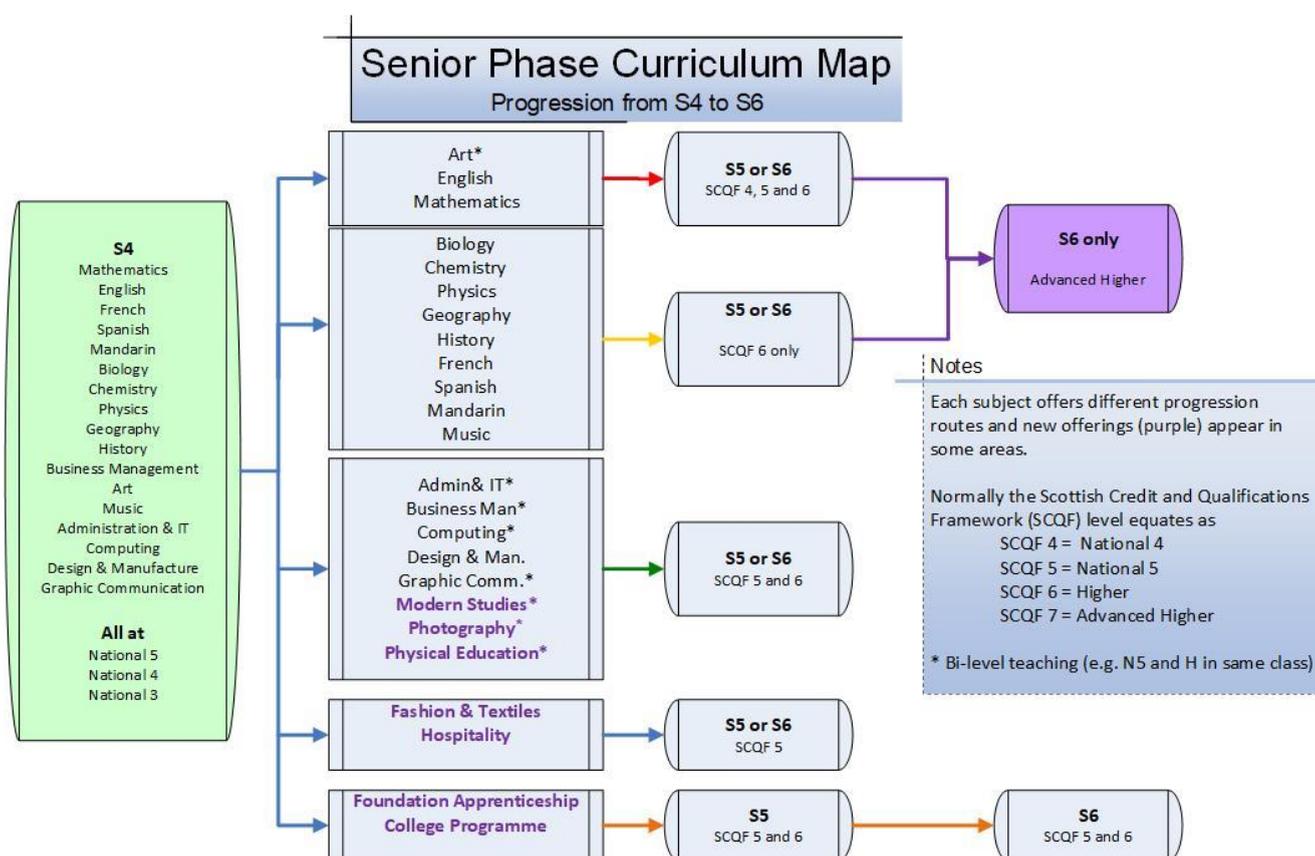
- ✓ Passed all N5 class assessments to date
- ✓ Achieved a minimum of Grade D in the S4 mock examination
- ✓ Demonstrated the work ethic and commitment necessary to achieve an award at National 5
  - ☐ Attendance and timekeeping
  - ☐ Effort in class
  - ☐ Homework and revision

## Pathways to S5 and Beyond

The overall aim of our senior phase (S4-S6) is that, whatever your individual interests and needs you have

- ◆ A curriculum which is coherent
- ◆ The opportunity to obtain qualifications as well as to continue to develop the attributes and capabilities of the four capacities
- ◆ Opportunities to develop skills for learning, skills for life and skills for work
- ◆ A continuing focus on literacy, numeracy and health and wellbeing
- ◆ Personal support to enable you to gain as much as possible from the opportunities provided
- ◆ Support in moving to a positive and sustained destination beyond school.

The vast majority of pupils at Jordanhill School choose to stay on for S5 and S6. The main users of qualifications gained in S4 are schools and FE colleges who use them to help pupils decide on the most appropriate pathway into the national qualifications on offer thereafter. The diagram below summarises the progression routes we offer within Jordanhill School.



A Pass in the N4 course is required to progress to N5 although direct entry is possible in some cases. In general terms progression to Higher in S5 requires a good pass (Grade A or B) at National 5 in S4. Details of entry requirements can be found in our S4 to S5 course choice web pages.

Pupils for whom N4 seems a likely progression route in S4 should ensure that they retain sufficient potential progression routes to S5 when making their choices. That is, you should not choose several subjects in which Higher is the only available route and in which you are unlikely to obtain the good pass at N5 necessary to gain admission. Your Head of House can advise you on this.

Details of national qualifications and progression to S5/S6 and beyond can be found at the following web sites

Scottish Qualifications Authority	<a href="http://www.sqa.org.uk">www.sqa.org.uk</a>
PlanIT Plus	<a href="http://www.planitplus.net">www.planitplus.net</a>
My World Of Work	<a href="http://www.myworldofwork.co.uk">www.myworldofwork.co.uk</a>
Nationals in a nutshell	<a href="http://www.npfs.org.uk/nationals-in-a-nutshell">www.npfs.org.uk/nationals-in-a-nutshell</a>

## Homework

The increased demands of courses in S3/S4 are reflected in the greater amount of homework expected of pupils. The allocation of homework will usually increase steadily as the course progresses.

In S3, pupils will be expected to spend approximately 60 minutes on homework, per subject, per week rising through S3 and into S4 to about 100 minutes for a subject studied at National 5 for 4 periods per week. These allocations include time spent on general revision of the subject, as well as set homework.

It is expected that pupils will establish a routine of steady revision of their work as their courses progress. A pupil who does not spend appropriate time on homework and revision throughout the year is not working hard enough to get the best award possible in that subject.

Guidance on homework in S3 can be found:

[http://www.jordanhill.glasgow.sch.uk/wp-content/uploads/2017/09/s3\\_homework.pdf](http://www.jordanhill.glasgow.sch.uk/wp-content/uploads/2017/09/s3_homework.pdf)

## Absences

In cases of ill health leading to extended or frequent absences, parents should contact their child's Tutor to explore the option for work to be done at home.

**The School cannot 'authorise' absences for vacation purposes.** The Scottish Government has directed that any such absence be recorded as "unauthorised". The onus will be on the pupil to catch up on any work missed. Parents are strongly advised not to remove their children for holidays during the session in S3 and S4.

Pupils complete a wide range of assignments in school during term 2 from January to March which contribute significantly to their final grade. Many of these have to be completed with a very narrow window and then submitted to SQA. Absences from school should be kept to an absolute minimum.

# Personal and Social Development

## Physical Education

S3/S4 is a transitional stage where pupils are expected to take on a greater responsibility for their learning in a less prescriptive context. The core programme aims to support the School's intra- and extra-curricular sports programmes whilst offering new challenges and opportunities.

During third year a block system is followed with a set programme of activities.

**The S3 programme is:**

- Block A:** **August to October holiday:**  
Boys: Games of the world and games-making (School) Girls:  
Netball and games-making (Jordanhill Games Hall)
- Block B:** **October holiday to End November:** (Jordanhill Games Hall) Boys:  
Volleyball Girls: Dance
- Block C:** **December:** Scottish social dance
- Block D:** **January to February:** Fitness  
**February to Easter:** Choice of racquet sports (badminton, table tennis and squash) at Jordanhill Games Hall or mixed hockey at School
- Block E:** **Summer term:** Athletics and Summer games

**S4** Pupils choose from one of three areas:

- (a) team squad training in football, hockey or rugby (£90 fees apply)
- (b) a core programme including elements from racquets, football, martial arts, volleyball, trampolining, basketball, dance and fitness.

## Personal Social and Health Education (PSHE)

In both S3 and S4 pupils have one period of PSHE per week led by their class tutor. The topics typically studied in each year group are listed below.

S3 PSHE	S4 PSHE
<ul style="list-style-type: none"> <li>• E-Safety</li> <li>• Positive Mental health</li> <li>• Action Against Domestic Abuse</li> <li>• Sexual Health and Relationships</li> <li>• Autism, Dyslexia and Attention Deficit Disorder</li> <li>• Drugs Education</li> <li>• Resilience</li> <li>• Course choice and careers</li> </ul>	<ul style="list-style-type: none"> <li>• Mock Interview activities: application letters and interview skills</li> <li>• Drugs Education</li> <li>• Financial Literacy: budgeting; bank accounts and safety</li> <li>• Cyber Safety</li> <li>• LGBT+ Awareness</li> <li>• HIV</li> <li>• Exam Fit: Study Skills; Sound Sleep</li> <li>• Course Choice Preparation</li> <li>• Work Placement Preparation: Safety At Work; Success at Work; Placement Research</li> <li>• Sexual Health and Relationships Education: Relationships; Sexually Harmful Behaviour; Parenting.</li> </ul>

The programme utilises co-operative learning strategies, ICT, input from the school careers advisor and visiting speakers to engage pupil interest.

Pupils are encouraged to self-evaluate, set targets and review progress throughout both S3 and S4. PSHE is a skills-based programme, which focuses on pupils' personal development and preparation for the rigour and challenge of studying exam courses and the wider world beyond school.

## **Religious and Moral Education – S3**

### **Religious belief and World Issues**

#### **Introduction**

The RME course in S3/4 closely follows the experiences and outcomes of the National Guidelines for CfE. As part of the broad general education, you will explore moral and ethical dilemmas and your own response to those issues. The programme of work is designed to develop your beliefs and attitudes to understanding how religion can affect a number of world issues. Throughout the course you will be challenged to think creatively about a broad spectrum of human experiences and religious responses.

#### **Course Outline**

#### **3 Units**

##### **1. Poverty**

This unit starts by looking at how to define poverty and then asks the question of why we have poverty in modern society. This is followed by a critical evaluation of both Christian and Sikh responses and attitudes towards poverty. You will then study, analyse and evaluate how aid is given throughout the world and what role religion plays this.

##### **2. War and peace**

This unit allows you to reflect on their own views and values about war and peace. The unit encourages discussion on the morality of war and the creation of a peaceful society using Christianity and Buddhism religious case studies.

##### **3. Environment**

This unit looks at the moral issue of human relationship with the planet Earth. It will encourage you to debate whether or not we as humans have destroyed the Earth by our selfish actions and to look at how religions are divided on this argument.

#### **Methods**

The delivery of this course has been redeveloped to promote the key learning ideas of the Curriculum for Excellence. This has meant that the more discursive part of the course has been highlighted to improve both communication skills and co-operative learning in the classroom. You are actively encouraged to share knowledge, ideas and experiences with one another to improve overall classroom learning. This method helps to promote inclusion in classes as the pace of lessons can be adjusted appropriately.

#### **Assessment**

Assessment aims to track and monitor the active learning of the courses and the skills that have been developed. Assessment will be shaped by the specific needs of learners.

## **Religious and Moral Education – S4 Making Moral Decisions.**

### **Course Outline**

The programme is designed to allow students the opportunity to consider and develop their own understanding of the common stances on morality.

Some of the issues that will be included in the programme are racism, marriage/arranged marriage, euthanasia and abortion.

#### **1. Racism**

You will study prejudice and then focus on racism by studying the lives of Martin Luther King and Malcolm X. This allows you to discover how religion can influence morality in differing ways. All pupils engage with current issues related to racism through entry to 'Show Racism the Red Card' competition.

#### **2. The Sanctity of Life**

You will study the controversial issues of abortion, euthanasia and arranged marriage. You will do so by researching just why these remain controversial and why they regularly dominate the news headlines in the UK.

#### **3. Justice**

We currently work in partnership with 'Street Law' (Law Society Scotland) to explore moral and ethical issues connected with the Scottish justice system

## Course Details

Details of all the courses offered are provided in the pages which follow. For most subjects you just choose the subject – you do not have to choose a particular course or level.

All pupils will study the core subjects

- ◆ **English**
- ◆ **French**
- ◆ **Mathematics**
- ◆ **Science Subject** (Biology, Chemistry, Physics)
- ◆ **Social Science Subject** (Business Management, Geography, History,)

You will choose three other subjects from the full list which includes the core subjects and

- ◆ **Expressive Arts** (Art & Design, Music)
- ◆ **Technologies** (Computing Science, Design and Manufacture and Graphics)
- ◆ **Spanish/Mandarin** (as an additional modern language)

### List of available subjects

Art & Design; Biology; Business Management; Chemistry; Computing Science; Design & Manufacture; English; French; Geography; Graphic Communication; History; Mandarin (National 5 only); Mathematics; Music; Physics; Spanish (National 5 only)

**As pupils progress through S3, most pupils transition towards a programme leading to certification in National 4 or 5. The descriptors which follow are for the National 4 and 5 courses offered in Jordanhill School**

The National Parent Forum has produced a guide for each subject under the banner [Nationals in a Nutshell](#). Parents and pupils may also find these useful.<sup>2</sup>

## Units in National Qualifications

National 3 and 4 courses are made up of “Units” of work (usually three units per course). To achieve a course award, pupils must achieve Unit passes in the SQA Unit assessment for each Unit. These are marked internally. They must also complete an added-value unit (assignment) which is marked externally. Pupils do not sit a final exam.

To achieve a pass in a National 5 course, pupils must complete all coursework including an assignment (marked externally) and sit the external examination. The combined mark from the examination and assignment will determine the final award. While courses are made up of Units, pupils do not undertake Unit assessments.

Freestanding Units at National 5 are available in all subjects. As described above (page 4) where it becomes obvious that achievement of an N5 course pass (grade A-C) in the final exam is unlikely, pupils may be advised to complete the N5 Unit assessments as an alternative to completing the N5 course assessments. This ensures that pupils receive recognition for their achievements to date. It can provide a stepping stone for future studies.

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<sup>2</sup> <http://www.npfs.org.uk/nationals-in-a-nutshell>

# ART and DESIGN

## Purpose and aims of the Course

At both National 4 and National 5 levels, pupils will be inspired and challenged by exploring how they can visually represent their personal thoughts and ideas.

Pupils will develop their understanding of art and design work and create original expressive ideas, and ideas in either **Product or Graphic Design**.

In the course, pupils

- draw upon their understanding of artists' and designers' work and practice to inspire their own work
- follow practical art and design processes to develop their own creative work in the two folios
- reflect on and evaluate their creative processes and the qualities of their expressive and design portfolios

Pupils will be advised which level they will most likely be presented at, dependent on their progress from S1/2 and in S3; however National 4 and National 5 will be taught in bi-level classes, allowing flexibility to move pupils between levels dependent on performance.

## National 4

The Course is made up of 3 units:

☒ **Expressive with Critical Activity** - this Unit helps pupils to develop their personal thoughts and ideas in visual form. They will experiment with and develop their media handling skills, using equipment and materials expressively. Pupils will also be encouraged to explore how technologies can be creatively used when developing their ideas. They will develop an understanding and appreciation of artists' working practices. They will also develop knowledge of the influences on art work.

☒ **Design with Critical Activity** - this Unit helps pupils to plan, research and develop creative design proposals. This will help develop their creativity, problem-solving and critical thinking skills as they consider design opportunities, issues and constraints. They will experiment with and develop their media handling skills, while developing their design ideas. Pupils will also be encouraged to explore the possibilities of using technologies creatively when researching and developing their ideas. They will develop an understanding and appreciation of designers' working practices. They will also develop knowledge of the influences on design work.

☒ **Added Value Unit: Art and Design: Practical Activity** – Pupils will apply their practical skills when producing finished art and design work. The practical activity will be sufficiently open and flexible to allow for personalisation and choice and will focus on both the process and product of learning. They will develop problem-solving skills in the context of their expressive and design work, and learn how to appreciate the work of artists and designers.

## National 5

### Course Assessment:

The Course is made up of two folios and a course assessment.

**Design Portfolio** - The purpose of this folio is to assess candidates' ability to integrate and apply practical design skills and their knowledge and understanding of design practice through production of either a **Product** or **Graphic** design project. Throughout the portfolio, candidates have the opportunity to demonstrate skills, knowledge and understanding by:

- responding to their design brief, producing and compiling a variety of relevant 2D/3D investigative material and market research, and using this to produce a single line of development leading to a design solution
- using a selection of materials, techniques and/or technology (including **Adobe Photoshop** and **Illustrator**), and demonstrating their knowledge of design elements
- reflecting on and evaluating their creative process and the aesthetic and functional qualities of their design portfolio with reference to their design brief requirements

**Expressive Portfolio** – The purpose of this portfolio is to assess candidates' ability to integrate and apply practical art skills and their knowledge and understanding of art practice across the course. Throughout the portfolio, candidates have the opportunity to demonstrate skills, knowledge and understanding by:

- responding to their agreed theme/stimulus by producing relevant 2D/3D analytical drawings, studies and investigative research, and using this to produce a single line of development leading to a final piece
- using a selection of materials, techniques and/or technology, visual elements and expressive effects
- reflecting on and evaluating their creative process and the visual qualities of their portfolio with reference to their theme/stimulus

**Art and Design Studies**– The purpose of the question paper is to assess candidates' knowledge and understanding of Art and Design practice and issues.

The questions are designed to test candidates' ability to:

- Comment on art and design work and critically respond to unseen prompts and images
- demonstrate knowledge and understanding of the impact of social, cultural and/or other influences on artists' and designers' work and practice
- give justified opinions on identified aspects of art and design practice and issues

### Methodology and skills development

The Course includes a mix of practical learning and the development of knowledge and understanding. Pupils will develop their creative practical skills, using materials and equipment when developing their ideas. Where appropriate, they will be encouraged to use technologies creatively when developing their ideas and their finished art and design work. Pupils will experience a variety of teaching methods including class and group discussion, direct teaching and, most of all, self-absorption in their practical work. There will be an emphasis on creative thinking and independent working.

### Homework

Pupils will be expected to regularly continue with practical coursework at home without being prompted. This is essential to keep on top of workload and to effectively work towards meeting deadlines. Written homework will also be issued as required.

# BIOLOGY

## National 4

### Purpose and aims of the Course

The Biology National 4 Course is practical and experiential, and develops scientific understanding of biological issues. Biology plays a crucial role in our everyday existence, and is an increasingly important subject in the modern world. This varied subject is more exciting and relevant than ever.

### Methodology and Skill Development

Skills will be developed as follows

- ◆ **demonstrating** and **applying** basic knowledge of Biology by making **accurate statements**
- ◆ and **explanations** with reference to **straightforward** situations,
- ◆ **interpreting** information and **solving problems**
- ◆ **selecting** and **presenting relevant information** from straightforward sources
- ◆ **processing** basic information accurately, using **calculations**, where appropriate
- ◆ **planning, designing** and carrying out straightforward experimental procedures
- ◆ **evaluating** straightforward experimental procedures
- ◆ drawing simple **valid conclusions** supported by evidence or justification
- ◆ **making predictions** and **generalisations** based on straightforward evidence/information

### Course Structure

#### Biology: Cell Biology

This will include cell structure and processes within cells, such as transport, photosynthesis and respiration, as well as DNA, protein and biotechnology.

#### Biology: Multicellular Organisms

This will include a comparative approach to the study of plants and animals, through areas such as reproduction and inheritance, the need for transport within organisms, digestion and associated enzymes, control and communication, and health.

#### Biology: Life on Earth

This will include world ecosystems, evolution, natural selection and competition, behaviour, biodiversity, decay, recycling and microorganisms and ethical issues.

#### Biology: Added Value Unit

In this Unit, learners will draw on and extend the skills they have learned from across the other Units, and demonstrate the breadth of knowledge and skills acquired, in unfamiliar contexts and/or integrated ways.

# BIOLOGY

## National 5

### Purpose and Aims of the Course

Biology plays a crucial role in our everyday existence, and is an increasingly important subject in the modern world. Advances in technologies have made this varied subject more exciting and relevant than ever. Biology affects everyone and aims to find solutions to many of the world's problems. The Course covers all of the major areas of biology, as detailed in the following Course Structure, and allows learners to develop a deeper understanding of the underlying themes

### Methodology and Skills Development

Key strategies and skills will include

- ◆ **demonstrating and applying** knowledge of biology by through **accurate** statements in new and familiar situations.
- ◆ providing **explanations** and by **integrating** different areas of knowledge
- ◆ **processing relevant information by selecting, presenting, interpreting, calculating, and problem solving**
- ◆ carrying out **experimental procedures** with reference to **planning, designing testing hypotheses, evaluating, making predictions, and drawing valid conclusions.**

Skills will be developed using a range of learning and teaching strategies including teacher exposition, practical tasks, group activities, research exercises and using a wide range of resources including ICT

### Course Structure

#### Biology: Cell Biology

This will include cell structure and processes within cells, such as transport, and respiration, as well as DNA, protein and biotechnology.

#### Biology: Multicellular Organisms

This will include a comparative approach to the study of plants and animals, through areas such as reproduction and inheritance, the need for transport within organisms, digestion and associated enzymes, control and communication, and health.

#### Biology: Life on Earth

This will include world ecosystems, evolution, photosynthesis, natural selection and competition, behaviour, biodiversity, decay, recycling, microorganisms, and ethical issues.

### Course assessment

The course is assessed by a final course exam during the SQA exam diet in S4. In addition, there will be an assignment which will involve researching a biological issue, from a range of sources, and creating a suitable report.

### Homework

Pupils will be completing homework on a regular basis and should be complementing the work of the class with their own private reading and revision.

## BUSINESS MANAGEMENT

### Purpose and Aims of the Course

The purpose of the Course is to develop learners' understanding of the way in which businesses operate in the current dynamic, changing, competitive and economic environments, and to encourage entrepreneurial attitudes. It highlights the way in which organisations operate and the steps that they take to achieve their goals. The course aims to enable learners to develop:

- ◆ Knowledge and understanding of the way society relies on business to satisfy our needs
- ◆ An insight into the systems organisations use to ensure customers' needs are met
- ◆ Enterprising skills and attitudes by participating in activities in realistic business situations, and an understanding of financial awareness through a business context
- ◆ An insight into how organisations organise their resources for maximum efficiency
- ◆ An understanding of the steps taken by organisations to improve their overall performance
- ◆ An awareness of how external influences impact on organisations, including economic impact

### National 4 Business

The National 4 Course is made up of 3 units:

- **Business in Action** – pupils will carry out activities that will give them an appreciation of
  - how and why businesses develop and operate in today's society.
- **Influences on Business** – this unit will give learners an appreciation of internal and external influences on business decision making in straight forward contexts.
- **Added Value Unit** – this unit will enable learners to draw upon and apply the skills, knowledge and understanding they have gained across the other units of the course in the form of an assignment.

### National 5

The National 5 Course is made up of 3 units:

- **Understanding Business** – this will allow learners to explore issues (such as competitive, political, social, economic and technical) relating to the external environment in which organisations have to operate and the effects they have on decision making and survival.
- **Management of People and Finance** – learners will follow basic theories, concepts and processes relating to the financial aspects of the business and allow them to prepare and interpret information in order to solve financial issues and to ensure the survival of the firm.
- **Management of Marketing and Operations** – learners will look at how marketing can be used to communicate effectively with customers, maximise customer satisfaction, and enhance competitiveness as well as looking at processes and procedures to produce goods and services to an appropriate standard of quality.

### Course Assessment

learners will be assessed through a **combination** of a Business Management **question paper** (75% of the final grade) and a business-related **assignment** (25% of the final grade).

## **Methodology**

Pupils will experience a variety of teaching methods including class and group discussions, use of real life examples and practical assignments. Pupils will analyse real business case studies and will apply theoretical knowledge in individual contexts to explain business decisions and business actions.

## **Homework**

Pupils will receive homework on a regular basis and should be encouraged to read business related websites and news portals to complement the work done in class.

# CHEMISTRY

## Purpose and Aims of the Course

Chemistry is vital to everyday life and allows us to understand and shape the world in which we live and influence its future. Chemists play a key role in meeting society's needs in areas such as medicine, energy, industry, material development, the environment and sustainability. As the importance and application of science continues to grow and develop, more trained scientists will be required.

The National 4 and 5 courses are practical and experiential and develop scientific understanding of issues relating to chemistry. Both courses use the development of chemical theory to help pupils develop an appreciation of the impact of chemistry on their everyday lives.

National 4 and National 5 Chemistry offer pupils opportunities to develop and extend a wide range of skills. The main aims of both courses are for pupils to:

- ♦ acquire and apply knowledge and understanding of chemistry concepts
- ♦ develop scientific and analytical thinking skills in a chemistry context
- ♦ develop applied problem solving skills in a chemistry context
- ♦ develop an understanding of chemistry's role in scientific issues
- ♦ develop understanding of how chemical products are formed and why they are formed
- ♦ develop understanding of relevant applications of chemistry in society

## National 4

### Chemistry: Chemical Changes and Structures

The Unit covers the key areas of rates of reaction, atomic structure and bonding related to properties of materials, energy changes of chemical reactions, and acids and bases. Pupils will research issues, apply scientific skills and communicate information related to their findings, which will develop skills of scientific literacy.

### Chemistry: Nature's Chemistry

Pupils will use everyday products such as cosmetics, fuels and food to develop skills and an understanding of the applications of chemistry to everyday life, while considering environmental and ethical implications.

### Chemistry: Chemistry in Society

Pupils will develop scientific and analytical thinking skills through investigating new materials and energy sources.

### Chemistry: Added Value Unit

Pupils will have the opportunity to demonstrate challenge and application in skills of scientific inquiry, investigation, analytical thinking and knowledge and understanding. They will investigate a topical issue in chemistry using knowledge and skills selected from *Chemical Changes and Structure/Nature's Chemistry/Chemistry in Society* key areas.

## National 5

The National 5 Course is made up of three units and a course assessment:

### **Chemistry: Chemical Changes and Structures**

Pupils will study rates of reaction, atomic structure and bonding related to properties of materials, formulae and reaction quantities and acids and bases. Learners will research issues, apply scientific skills and communicate information related to their findings, which will develop skills of scientific literacy.

### **Chemistry: Nature's Chemistry**

Pupils will build on the understanding of a variety of natural resources and associated products to gain knowledge and develop skills. Pupils can then apply these skills when considering the ethical and environmental implications of the application of chemical knowledge to fuelling and feeding a modern society.

### **Chemistry: Chemistry in Society**

Pupils will be introduced to fundamental chemical concepts and apply skills in a variety of areas, such as the development and use of novel and new materials, including forms of energy generation.

### **Chemistry: Added Value Unit**

Pupils will have the opportunity to demonstrate challenge and application in skills of scientific inquiry, investigation, analytical thinking and knowledge and understanding. They will investigate a topical issue in chemistry using knowledge and skills selected from *Chemical Changes and Structure/Nature's Chemistry/Chemistry in Society* key areas.

### **Methodology**

Pupils will experience a variety of teaching methods including independent study, group work, and direct teaching. As both courses aim to equip pupils with the practical skills necessary to fully engage with chemical theory, pupils will carry out a wide range of practical activities and investigations.

### **Homework**

Pupils will be completing homework on a regular basis and should be complementing the work of the class with their own private reading and research.

# COMPUTING SCIENCE

## Purpose and aims of the Course

Computing Science is vital to everyday life; it shapes the world in which we live and its future. Computer scientists play key roles in meeting the needs of society today and for the future, in fields which include science, communications, entertainment, education, business and industry. Our society needs more computer scientists to help meet the anticipated future demand and fill the current skills gap. All young people should have an informed view of the IT industry and its contribution to the economy.

A quotation from Bill Gates “Learning to write programs stretches your mind, and helps you think better, creates a way of thinking about things that I think is helpful in all domains.”

Mark Zuckerberg says “Our policy is literally to hire as many talented engineers as we can find. There just aren't enough people who are trained and have these skills today.”

The aims of the Course are to enable learners to:

- ◆ develop knowledge and understanding of key facts and ideas in computing science
- ◆ introduce and develop aspects of computational thinking in a range of contexts
- ◆ apply analysis, design, modelling and evaluation to a range of problems
- ◆ communicate clearly and concisely using appropriate terminology
- ◆ develop an awareness of the impact of computing and information technology in changing and influencing our environment and society

## National 4

**Software Design and Development** - The learner will:

- ◆ Develop short programs using a software development environment
- ◆ Develop an understanding of basic concepts in software development environments to explain how programs work

**Information Systems Design and Development** - The learner will:

- ◆ Develop simple information systems using appropriate development (including websites and databases)
- ◆ Consider a number of basic factors when designing and implementing an information system
- ◆ Develop an understanding of the security risks involved in electronic communication
- ◆ Develop an awareness of emerging technologies and their impact on the environment and society

## Added Value Unit

The Added Value Unit will address the key purposes and aims of the course. In this course, the Added Value Unit will focus on practical challenge and application.

## **National 5**

Comprises two units and a course assessment.

**Software Design and Development** - The learner will:

- ◆ Develop short programs using a variety of software development environments including those suitable for both problem-solving and games development
- ◆ Develop an understanding of basic concepts in software development environments to explain how programs work

**Information Systems Design and Development** - The learner will:

- ◆ Develop simple information systems using appropriate development tools such as HTML to create web pages
- ◆ Consider the factors involved in the design and implementation of a small-scale information system

### **Course Assessment**

The learner will draw on, extend and apply the skills and knowledge they have developed during the Course. These will be assessed through a combination of a practical project (worth 31% of the course assessment) and a theory question paper (worth 69% of course assessment).

### **Methodology**

Computing Science integrates practical experiences, problem-solving, theoretical study and effective communication. The work will call upon, improve and test each child's creativity and decision-making skills within a structured framework.

### **Homework**

Pupils will be completing homework on a regular basis and should be complementing the work of the classroom by staying abreast of emerging technologies by reading or watching appropriate programmes.

## DESIGN AND MANUFACTURE

### Purpose and Aims of the Course

This course, at both levels National 4 and National 5 offers learners opportunities to develop and extend a wide range of skills. In particular, it aims to enable learners to develop the ability to

- ◆ identify factors that influence design and apply these in a design task
- ◆ develop and communicate design concepts for a design task
- ◆ evaluate an existing product
- ◆ Investigate materials for manufacturing tasks in a workshop context
- ◆ prepare for manufacturing tasks in a workshop context
- ◆ plan and implement a manufacturing sequence for a prototype
- ◆ review manufacturing processes and a finished prototype

### National 4

The National 4 Course is made up of two units:

- ② **Design** - Learners will take a given design brief and develop it to a final concept, generating ideas by applying research, graphics and modelling techniques. Existing commercial products will be examined and evaluated.
- ② **Materials and Manufacturing** Learners will manufacture models and prototypes, applying a range of practical skills. The Unit is designed to enable the learner to develop knowledge of the impact of materials and manufacturing on design and the environment.

### National 5

The National 5 Course is made up of two units and a course assessment:

- ② **Design** - The general aim of this Unit is to develop the learner's skills and creativity in designing a product towards a manufacturing process. Learners will take a given design brief and develop it to a final concept, generating ideas by applying research, graphics and modelling techniques. Existing commercial products will be examined and evaluated. The Unit is also designed to enable the learner to develop an understanding of the impact of design and manufacturing technologies on our environment and society.
- ② **Materials and Manufacturing** - The general aim of this Unit is to develop the learner's skills and creativity in manufacturing a product or prototype based on a given a design concept. The aim includes developing an appreciation and application of the properties and uses of materials. Learners will manufacture models and prototypes, applying a range of practical skills. The Unit is designed to enable the learner to develop an understanding of the impact of materials and manufacturing on design and the environment.
- ② **Course Assessment** – The course will be assessed by a combination of an assignment and an externally assessed question paper.

**Methodology**

Pupils will experience a range of teaching methods including class and group discussion, direct teaching, graphic skills demonstrations, tutorials in computer software and physical model building techniques in the workshop context.

**Homework**

Homework will be issued regularly and deadlines are issued on a term by term planning sheet. Practice in past paper style questions are gradually introduced after time is spent on a series of formal homework exercises. Folio work needs to be taken seriously and true pupil expertise can only be developed through continual practice and refinement at home.

Pupils are urged to take an interest in all aspects of product and industrial design. This will involve trawling websites and developing insight into the subject by familiarising themselves with the content of many of the extensive collection of design books in the departmental library.

# ENGLISH

## Purpose and Aims of the Course

English - at both National 4 and National 5 - offers learners opportunities to develop a wide range of crucial skills:

- understanding how language works and applying language skills in different contexts
- understanding, explaining, analysing and evaluating straightforward texts (language, literature and media) both orally and in writing
- creating, structuring and producing straightforward texts for different purposes
- communicating ideas, views, feelings and information orally and in writing with technical accuracy
- identifying and evaluating sources; selecting and using information
- planning, researching and note-making
- using technology to communicate
- social and interpersonal skills
- effective questioning and reflection
- creative thinking

## National 4

The National 4 Course comprises the following units:

- **Analysis and Evaluation**  
Provides learners with the receptive skills of reading and listening to understand, analyse and evaluate increasingly complex texts
- **Creation and Production**  
Provides learners with the opportunity to develop the productive skills of writing and talking to create increasingly complex oral and written texts
- **Literacy**  
Provides learners with the opportunity to develop the four skills of reading, listening, writing and talking in contexts relevant to learning, life and work
- **Added Value Unit (Assignment)**  
Provides learners with the opportunity to apply and integrate their language skills in English through a self-directed project, culminating in a presentation or essay

Work on all four units will often be thematically linked by a topic or project. Evidence of learning may take many forms, including digital or spoken presentations, discussions, reports, essays, posters, leaflets, or notes. Learners may use these to build a portfolio to show their progress through the units.

To gain National 4, learners must pass all units including the Added Value Unit assignment.

## National 5

The National 5 course comprises the following components:

- **Performance - Spoken Language (pass/fail):** an internally-assessed group discussion or solo presentation demonstrating talking and listening skills
- **Portfolio – Writing (30 marks):** two pieces of writing in different genres, written under some supervision and externally assessed by SQA
- **Exam Paper 1 – Reading for Understanding Analysis and Evaluation (30 marks):** questions on an unseen non-fiction text
- **Exam Paper 2 – Critical Reading (40 marks):** unseen questions on a extract from Scottish literature previously studied in class; a critical essay on a different literature text studied in class

## Homework

At all levels of English, pupils are expected to maintain a regular diet of personal reading. At National 4 or National 5, this must include regular reading of quality non-fiction such as current affairs journalism, opinion pieces, and feature articles.

Some elements of the course assessment (particularly the National 4 Added Value Unit and the National 5 Portfolio) involve a significant degree of independent work to be completed at home, including research, secondary reading, writing and redrafting.

In addition to this, formal homework exercises consolidate skills in reading, textual analysis and essay writing.

**For more detailed course information about English at all SQA levels:**

[www.sqa.org.uk/sqa/45672.html](http://www.sqa.org.uk/sqa/45672.html)

# FRENCH

## Purpose and Aims of the Course

The Course, at both levels National 4 and National 5 offers learners opportunities to develop and extend a wide range of skills. In particular, it aims to enable learners to develop the ability to

- ♦ listen and talk, read and write in a modern language, as appropriate to purpose, audience and context.
- ♦ understand and use a modern language as appropriate to purpose, audience and context
- ♦ plan and research, integrating and applying language skills as appropriate to purpose, audience and context
- ♦ apply knowledge of a modern language

The course contributes towards the development of **literacy skills** by providing learners with opportunities to listen and talk, read and write in a modern language, and to reflect on how this relates to English.

## National 4

The National 4 Course is made up of three units:

- **Understanding language** – this unit provides learners with the opportunity to develop listening and reading skills and to develop their knowledge of simple but detailed language in familiar contexts such as citizenship, society, learning, employability and culture
- **Using language** – this unit provides learners with the opportunity to develop talking and writing skills in familiar contexts.
- **Added value unit** – which provides learners with the opportunity to apply and integrate their language skills in a straightforward context. It enables learners to plan and research a chosen topic using their reading and writing skills and it provides learners with the opportunity to present their findings in a short presentation, using their listening and talking skills in the modern language.

## ASSESSMENT

To get the N4 award, pupils need to pass a unit assessment in each discrete skill: Reading, Writing, Listening and Speaking.

They also need to pass the Added value unit. (focus on Reading and Speaking).

There is no course assessment or exam.

## National 5

The National 5 Course requires pupils to develop all four skills:

- **Receptive skills: Reading and Listening**

Learners demonstrate their ability to **understand** language. The original text (written or spoken) is in the target language, questions and pupils' responses are in English.

- **Productive skills: Writing and Speaking**

Learners demonstrate their ability to **use** the target language in familiar contexts.

### ASSESSMENT

The course assessment is graded A-D or No Award.

The course assessment consists of:

- a question paper (assessing reading, writing and listening)
- a performance (assessing speaking)
- an assignment (assessing writing)

Both the performance and assignment are assessed during Term 2 of S4 but contribute to the final award.

### Methodology

Pupils will experience a variety of teaching methods including class and group discussion, direct teaching and self-study.

### Homework

Consolidation of the language and grammar concepts covered in class is crucial to the learning and acquiring of a Modern Language. Pupils should do so on a daily basis as well as completing their written tasks. Pupils are also encouraged to research cultural aspects of French speaking countries.

# GEOGRAPHY

## Purpose and Aims of the Course

The purpose of Geography is to develop the learner's understanding of our changing world and its human and physical processes. Opportunities for practical activities, including fieldwork, will be encouraged, so that learners can interact with their environment.

The main aims of Geography are to enable learners to:

- ♦ Appreciate the ways in which people and the environment interact in response to physical and human processes at local, national and international scales
- ♦ Be aware of spatial relationships and develop an understanding of the changing world in a balanced, critical and sympathetic way
- ♦ Acquire a geographical perspective on environmental and social issues
- ♦ Develop an interest in, and concern for, the environment leading to sustainable development

## National 4 and National 5

Pupils will cover the same general themes in both courses but the National 5 content will be more rigorous. Pupils will be expected to complete more challenging tasks and cover a wider breadth of learning.

### The Physical Environment

This unit will examine the formation of glaciated and coastal landscapes and how land is used in both environments. Land management and conflicts will be studied in relation to the Cairngorms and the Dorset coast. Pupils will study weather patterns in the UK and link this to case study areas.

### The Human Environment

This unit will look at urban and rural areas in both developed and developing countries. Pupils will study the factors affecting population change; land use and change in urban and rural landscapes. Two case studies will be examined – Glasgow and Nairobi.

### Global Issues

Pupils will study two global issues:

- Natural Regions  
A comparison of climate, vegetation, people, land use and misuse in the Arctic Desert and Brazilian Rainforest
- Development and Health  
A case study of diseases in developed and developing countries – the causes and impacts of HIV, malaria and heart disease.

National 4	National 5
Physical Environments  Human Environments  Global Issues  Course Assessment - Added Value unit and unit assessments (internally assessed).	Physical Environments  Human Environments  Global Issues  Course Assessment - Assignment (20%) and Exam (80%). Both assessed by SQA.

**N4 Added Value unit** – consists of a research topic which will allow pupils to research a geographic topic or issue, apply geographic skills and techniques and use information relating to their findings.

**N5 Course assessment (the assignment)** – pupils choose a topic to research using at least two different fieldwork techniques. The findings are analysed and presented on two A4 pages or one A3 page which pupils then use to complete a written assignment under exam conditions. This is submitted to SQA for assessment.

#### **Methodology**

Pupils will experience a variety of teaching methods including direct teaching, group activities, field work, OS map work, self-study/book work and research. ICT will play an integral part in the delivery of the course work.

#### **Homework**

A range of homework will be issued and may involve pupils researching, carrying out field work, writing up investigative pieces of work and doing more traditional exam style questions. Pupils will be expected to read and learn course notes as a matter of course.

## GRAPHIC COMMUNICATION

### Purpose and Aims of the Course

The Course, at both levels National 4 and National 5 offers learners opportunities to develop and extend a wide range of skills. In particular, it aims to enable learners to develop the ability to:

- ◆ Develop spatial awareness and visual literacy
- ◆ Initiate, develop and communicate ideas graphically
- ◆ Learn, understand and apply principles of graphic design to folio tasks
- ◆ Use industry standard software applications in vectorgraphics, image manipulation, CAD and 3-D modelling.
- ◆ Read, interpret and produce technical drawings, such as those used in design, engineering and architecture.

### National 4 and National 5

The National 4 Course is made up of three units and the National 5 Course is made up of two units and a course assessment.

National 4	National 5
<ul style="list-style-type: none"> <li>• 2D Graphic Communication</li> <li>• 3D and Pictorial Graphic Communication</li> <li>• Added Value Unit</li> </ul>	<ul style="list-style-type: none"> <li>• 2D Graphic Communication</li> <li>• 3D and Pictorial Graphic Communication</li> <li>• Course Assessment</li> </ul>

**National 5** has a more rigorous content than **National 4** with some complex features in both units.

- 📄 **2D Graphics communication** - this unit provides learners with the opportunity to develop skills and creativity in producing and interpreting 2D graphics in simple and familiar contexts
- 📄 **3D and Pictorial Graphic Communication** – this unit provides learners with the opportunity to develop skills and creativity in producing and interpreting pictorial and 3D graphics. The unit also develops transferrable and creative problem solving skills in a graphic communication context
- 📄 **Added value unit** – which provides learners with the opportunity to apply and integrate the skills they have developed by working to solve a contextualised graphic design problem.
- 📄 **Course Assessment** – the N5 course will be assessed through a question paper that will assess knowledge, understanding and interpretation of graphics, and an assignment that will assess the production of graphic items in response to a brief.

### Methodology

Pupils will experience a variety of teaching methods including class and group discussion, direct teaching and self study and directed use of tutorial materials.

### Homework

Pupils will be competing homework on a regular basis and should be complementing the work of the class with their own private practise. Pupils will be encouraged to take an interest in graphic communication in its many forms from the print industry, advertising, internet, electronic device user interfaces, computer animations and formal drawings.

# HISTORY

## Purposes And Aims Of The Course

History offers learners the opportunity to develop understanding of current world problems by learning about other people and their values, in different times, places and circumstances.

## What Are the Aims?

To develop the skills of:

- ✓ thinking independently
- ✓ developing a detailed knowledge and understanding of historical themes and events
- ✓ evaluating the impact of historical developments
- ✓ evaluating a variety of primary and secondary sources e.g. print, photographs, artefacts, newspaper archives, oral recordings
- ✓ presenting information and views
- ✓ researching, organising and analysing information
- ✓ decision-making and problem-solving
- ✓ communicating for different purposes

## Learning & Teaching

Throughout the course you will experience:

- ✓ active, collaborative and independent learning.
- ✓ activities outside of the classroom. The topics chosen for study at N4/5 aim to support this fieldwork. For example, trips have included Liverpool (Atlantic Slave trade) and Dundee (Migration and Empire).
- ✓ ICT work integral to course work.
- ✓ a blend of classroom approaches: whole class, small group or one to one discussions; direct interactive teaching.
- ✓ space for personalisation and choice: Assignment topic choice and methodology.
- ✓ embedding literacy skills: selecting and assessing information, presenting findings;
  - evaluating; debating; listening; reading; writing.

## National 4 and National 5

The N4 course is made up of three units and an Added Value assignment. The N5 course is made up of three units and an Added Value assignment and assessment.

We will use a variety of approaches to enable students to gather evidence for unit assessment (or 'evidence of learning'). These could be digital or spoken presentations, posters, leaflets, extended writing, notes or podcasts.

For N5, the Course Assessment consists of the Assignment (a report on a historical issue of the learner's own choice, researched in advance and written up under controlled conditions) and a Question Paper (exam). Both are marked by the SQA and will be graded A to D:

National 4	National 5
<ul style="list-style-type: none"> <li>• Scottish: Migration and Empire (Impact of Scots on the modern world)</li> <li>• Britain: the Atlantic Slave Trade</li> <li>• European &amp; World: The Second World War</li> <li>• Course Assessment: Added Value Assignment</li> </ul>	<ul style="list-style-type: none"> <li>• Scottish: Immigrant &amp; Exiles (Impact of Scots on the modern world)</li> <li>• Britain: the Atlantic Slave Trade</li> <li>• European &amp; World: The Second World War</li> <li>• Course Assessment: External Exam and Added Value Assignment</li> </ul>

### Homework

Pupils will be completing homework on a regular basis. This work will complement the knowledge and skills developed through the work of the class and may include personal study and activities to develop evaluating as well as personal and work skills.

## MANDARIN

In S3, in addition to French, pupils can also opt to study Mandarin at N5 level. Only those who have shown an aptitude for language learning and developed significant strengths to date in Mandarin should consider this course.

### Purpose and Aims of the Course

This course, offered at **National 5 level only**, offers learners opportunities to develop and extend a wide range of skills. In particular, it aims to enable learners to develop the ability to

- listen and talk, read and write in another modern language, as appropriate to purpose, audience and context.
- understand and use another modern language as appropriate to purpose, audience and context
- plan and research, integrating and applying language skills as appropriate to purpose, audience and context

The course contributes towards the development of **literacy skills** by providing learners with opportunities to listen and talk, read and write in a modern language, and to reflect on how this relates to English or indeed French, that they have studied since P6.

### National 5

The National 5 Course requires pupils to develop all four skills:

- **Receptive skills: Reading and Listening**  
Learners demonstrate their ability to **understand** language. The original text (written or spoken) is in the target language, questions and pupils' responses are in English.
- **Productive skills: Writing and Speaking**  
Learners demonstrate their ability to **use** the target language in familiar contexts.

### ASSESSMENT

The course assessment is graded A-D or No Award.

The course assessment consists of:

- a question paper (assessing reading, writing and listening)
- a performance (assessing speaking)
- an assignment (assessing writing)

Both the performance and assignment are assessed during Term 2 of S4 but contribute to the final award.

### Methodology

Pupils will experience a variety of teaching methods including class and group discussion, direct teaching and self-study.

### Homework

Consolidation of the language and grammar concepts covered in class is crucial to the learning and acquiring of a Modern Language but even more so when doing an accelerated course. Pupils should do so on a daily basis as well as completing their written tasks. Pupils are also encouraged to research cultural aspects of Mandarin speaking countries.

# MATHEMATICS

## Purpose and Aims of the Course

Our Mathematics courses aim to motivate and challenge learners by enabling them to select and apply mathematical techniques in a variety of mathematical and real-life situations. Mathematics develops skills in manipulation of abstract terms in order to solve problems and to generalise. It allows learners to interpret, communicate and manage information in mathematical form, skills which are vital to scientific and technological research and development.

Mathematics at National 4 and National 5 level is designed to develop the learner's skills in using mathematical language, to explore mathematical ideas, and to develop skills relevant to learning, life and work in an engaging and enjoyable way. It will build on prior learning and develop:

- ◆ operational skills in algebra, geometry, trigonometry and statistics
- ◆ reasoning skills of investigation, problem solving, analysis and modelling
- ◆ numeracy skills in number processes and information handling

Pupils will be advised which course they will be studying dependent on their progress from S1/2 and in S3. Those pupils recommended to follow the National 5 Mathematics course in S4 must be secure in the Level 4 Curriculum for Excellence Experiences and Outcomes by the end of S3. We would expect these pupils to be already working at Level 4 in Jan/Feb of S2.

## National 4 and National 5

The National 4 Course is made up of four units and the National 5 Course is made up of three units and a course assessment.

National 4	National 5
<ul style="list-style-type: none"><li>• Mathematics: Expressions and Formulae</li><li>• Mathematics: Relationships</li><li>• Numeracy</li><li>• Mathematics: Added Value</li><li>• Unit</li></ul>	<ul style="list-style-type: none"><li>• Mathematics: Expressions and Formulae</li><li>• Mathematics: Relationships</li><li>• Mathematics: Applications</li><li>• Course Assessment (assessed within a question paper)</li></ul>

Whilst the National 4 course is essential to provide a solid mathematical foundation, the National 5 course builds upon the more straightforward content of the National 4 course, where pupils will be exposed and expected to interpret and manipulate problems in a more complex and unfamiliar context.

## **Additional Qualification**

Pupils who follow a National 4 course in S4 will also be afforded the opportunity to gain a National 5 Numeracy award. This is a stand-alone unit of work which is essential in providing those pupils with a desire to progress onto National 5 in S5/6 with a core grounding in the level of Numeracy required to be successful at National 5 Mathematics.

## **Methods**

Pupils will have one main textbook which they will take home with them every night. In addition, a variety of other texts, TV programmes, computer programs and resource materials are used in class. Revision material is also provided and pupils have additional help from other staff through supported study sessions.

Traditional teacher-led lessons and individualised learning take place alongside group activities using cooperative learning and formative assessment strategies to promote active learning and develop reasoning and teamwork skills.

## **Homework**

In Mathematics as learning is developed upon prior knowledge, it is vital that pupils consolidate each day's classwork at home in the evening and undertake a thorough revision plan in addition to doing set homework. Pupils will also be assigned formal homework on a regular basis which they will complete in a separate jotter. Homework will usually be given from a textbook or from O365.

We encourage parents to alert us if their children are not doing enough work at home so that we can suggest strategies to overcome this.

## **Further Information**

Pupils are expected daily to have pencils and pens, a ruler and a scientific calculator. They will also require a protractor and compasses for some class work. It is essential that they have all of this mathematical equipment with them for every lesson.

# MUSIC

## Purpose and Aims of the Course

The Course, at both levels National 4 and National 5 enables learners to develop skills in creating, understanding and performing music in a variety of contexts. In particular, it aims to enable learners to

- ♦ develop skills in creating music, which includes composing, arranging and improvising, by applying a range of compositional techniques
- ♦ develop skills in musical analysis and to discriminate between a range of styles and genres of music
- ♦ develop their musical literacy through an understanding of a range of music concepts and ideas
- ♦ perform a variety of music on their chosen instrument(s) with accuracy
- ♦ have the opportunity to acquire skills in the use of music technology
- ♦ reflect on, and evaluate their own work and that of others

## National 4

The National 4 Course is made up of four units.

### Composing Skills

In this Unit, learners will develop skills in creating music, which includes composing, arranging or improvising, in order to create their own original music.

### Understanding Music

In this Unit, through listening, learners will develop knowledge and understanding of music, a limited range of music concepts, and basic musical literacy.

### Performing Skills

In this Unit, learners will develop performing skills appropriate to their chosen instrument(s)/voice.

### Added Value Unit: Music: Practical Activity

This Unit adds value by introducing challenge and application. In the Music practical activity, learners will draw on and extend the application of their practical skills in context. This context will be a performance of a programme of music lasting **eight minutes** with two instruments or instruments and voice at **Grade 2** Associated Board level.

## National 5

The National 5 Course is made up of three assessed components; **practical activity, composing assignment** and **question paper**.

The practical activity will be in the context of a **performance** of a programme of music lasting **eight minutes** with two instruments or instruments and voice at **Grade 3** Associated Board level. **Each instrument/voice is worth 30 marks.**

The **composing assignment** draws on candidates' skills, knowledge and understanding of music. Candidates are required to compose one piece of music and submit this alongside a review of their compositional process. **This assignment is worth 15 marks.**

The **question paper** will require demonstration of a depth of knowledge and understanding of music, music concepts, and musical literacy, drawn from the Units in the Course.

Both of these activities will be underpinned by knowledge and understanding of music and will be sufficiently open and flexible to allow for personalisation and choice.

**The question paper is worth 40 marks.**

The course assessment is graded A-D or No Award.

### **Methodology**

Pupils will experience a variety of teaching methods including individual and/or group instrumental/voice lessons, class and group discussion, direct teaching and self study.

### **Homework**

Homework consists of mainly practice and acquiring skills on the instruments required for performance elements. There will be some formal written assignments throughout the course. Most concepts will be covered through practical activity.

# PHYSICS

## Purpose and Aims of the Course

With our growing reliance on technology and the current shortage of engineers and scientists, physics is an essential area of study. Knowledge of physics is important in so many areas, from medicine to the environment, from sustainable living to banking. In this subject you will learn how the world and the universe works from the very smallest thing you can possibly imagine to the very largest, from the visible to the invisible, and everything in between. You will learn how to problem solve, a valuable skill you can take into any area of study and since physics impacts on so many aspects of everyday life you will learn about the applications of physics that have benefited our society.

The Course, at National 4 and National 5, is both practical and theoretical, developing scientific understanding of issues relating to physics. It will enable learners to gain an in-depth knowledge of concepts in physics, and to develop confidence in the skills of scientific enquiry.

The main aims of these courses are for learners to:

- ✓ develop scientific and analytical thinking skills in a physics context
- ✓ develop an understanding of the role of physics in scientific issues
- ✓ acquire and apply knowledge and understanding of concepts in physics
- ✓ develop understanding of relevant applications of physics in society

Through these Courses, learners can develop relevant skills for learning, for use in everyday life, and across all sectors of employment.

Pupils will be advised which course they will be studying dependant on their progress from S1/2 and in S3.

## National 4

The National 4 Course is made up of four units

### Dynamics &Space

The Unit covers the key areas of speed and acceleration, relationships between forces, motion and energy, satellites and cosmology. Learners will research issues, apply scientific skills and communicate information related to their findings, which will develop skills of scientific literacy.

### Waves & Radiation

This Unit will explore concepts, appropriate to this level, that are relevant to electrical and mechanical equipment in use in society, while developing skills in investigation, experiment and analysis. It will focus on the use of electromagnetic waves and sound waves in medicine and communications, and on kinematics.

### Energy & Electricity

The Unit covers the key areas of generation of electricity, electrical power, electromagnetism, practical electrical and electronic circuits, gas laws and the kinetic model. Learners will research issues, apply scientific skills and communicate information related to their findings, which will develop skills of scientific literacy.

### Added Value Unit

This Unit will allow learners to draw on and extend the skills they have learned from across the other Units, and demonstrate the breadth of knowledge and skills acquired, in unfamiliar contexts and/or integrated ways.

## **National 5**

The National 5 Course is made up of three units and a course assessment:

### **Energy & Electricity**

This Unit will explore relationships in heat energy and in electrical energy, while developing skills in investigation, experiment and analysis. It will focus on concepts in energy transformation and the generation and use of electricity in society. It will also introduce some electronic systems and components.

### **Wave & Radiation**

This Unit will explore concepts, appropriate to this level, that are relevant to electrical and mechanical equipment in use in society, while developing skills in investigation, experiment and analysis. It will focus on the use of electromagnetic waves, sound waves and nuclear radiation in medicine. It will also look at how these waves are used in communication systems and how sound can be manipulated. A detailed look at nuclear radiation and its many uses in medicine, industry and power generation.

### **Dynamics & Space**

This Unit will explore concepts, appropriate to this level, relevant to study of the universe and its exploration, while developing skills in investigation, experiment and analysis. It will focus mainly on relationships involving forces and the effect these forces have on objects. This leads onto studying space exploration, its benefits to society and the many uses of satellites.

### **Course Assessment**

Pupils will draw on and extend the skills they have developed during the Course. These will be assessed within a question paper and a Coursework, requiring demonstration of the breadth of knowledge and skills acquired from across the Units in unfamiliar contexts and/or integrated ways. The course assessment is graded A-D or No Award.

### **Methodology**

Pupils will experience a variety of teaching methods including class and group discussion, direct teaching and self-study.

### **Homework**

Pupils will be completing homework on a regular basis and should be complementing the work of the class with their own private study. Students will also complete more rigorous formal homework to help them familiarise themselves with the expected standards of the National 5 course.

# SPANISH

## Purpose and Aims of the Course

This course, offered at **National 5 level only** offers learners opportunities to develop and extend a wide range of skills. In particular, it aims to enable learners to develop the ability to

- ♦ listen and talk, read and write in a modern language, as appropriate to purpose, audience and context.
- ♦ understand and use a modern language as appropriate to purpose, audience and context
- ♦ plan and research, integrating and applying language skills as appropriate to purpose, audience and context
- ♦ apply knowledge of a modern language

The course contributes towards the development of **literacy skills** by providing learners with opportunities to listen and talk, read and write in a modern language, and to reflect on how this relates to English or indeed French, that they have studied since P6.

## National 5

The National 5 Course requires pupils to develop all four skills:

- **Receptive skills: Reading and Listening**  
Learners demonstrate their ability to **understand** language. The original text (written or spoken) is in the target language, questions and pupils' responses are in English.
- **Productive skills: Writing and Speaking**  
Learners demonstrate their ability to **use** the target language in familiar contexts.

## ASSESSMENT

The course assessment is graded A-D or No Award.

The course assessment consists of:

- a question paper (assessing reading, writing and listening)
- a performance (assessing speaking)
- an assignment (assessing writing)

Both the performance and assignment are assessed during Term 2 of S4 but contribute to the final award.

## Methodology

Pupils will experience a variety of teaching methods including class and group discussion, direct teaching and self-study.

## Homework

Consolidation of the language and grammar concepts covered in class is crucial to the learning and acquiring of a Modern Language but even more so when doing an accelerated course. Pupils should do so on a daily basis as well as completing their written tasks. Pupils are also encouraged to research cultural aspects of Spanish speaking countries.

Pupils select their courses for S3/4 through an online survey in the Jordanhill School Portal. This survey is not accessible from home.

A 'paper' Course Choice Form has been included in this booklet for planning purposes and to allow you to keep a record at home of the choices submitted on-line through the JMG Portal

Practise completing it first in pencil.

- ✓ Enter your name, register class and the name of your Head of House.
- ✓ Choose ONE social subject by circling it clearly
- ✓ Circle your **first choice** Science course.
- ✓ **In order of priority** enter three further courses and two reserve courses that you would like to study in S3/S4. The full list is printed on page 10 of this booklet and is also shown on the following pages.

No guarantees can be given that we will meet all of your choices. In constructing the timetable, we shall give priority to the courses at the top of your list for which you seem well suited.

Bring this form along to your PSE lesson, where you will complete your course choice from the survey section of the JMG Portal. Your tutor will offer help and advice as you do this. In the weeks up to the Easter break you will then have the opportunity discuss your choices with your Head of House or Mr Scobie.

JORDANHILL SCHOOL

**S3 COURSE CHOICE 2019**

Pupil Name: \_\_\_\_\_

Reg. Class: \_\_\_\_\_

Head of House: \_\_\_\_\_

All pupils study **English, Mathematics** and **French**. Choose 1 Social Subject, 1 Science and 3 other subjects as set out below. Read the accompanying instructions **carefully**.

Circle <b>one</b> Social Subject*	Circle <b>one</b> Science Subject	Choose <b>three</b> other subjects- add a tick in the box next to the subject. Choose <b>two</b> reserve subjects – number them R1 and R2.			
Business Management	Biology	Art and Design		Design and Manufacture	
Geography	Chemistry	Biology		Geography	
History	Physics	Business Management		Graphic Communication	
		Chemistry		History	
		Computing Science		Music	
		Mandarin N5		Physics	
				Spanish N5	

All courses are offered subject to numbers of pupils opting for them and to the availability of staff and resources

**Notes: Please pick a maximum of two social subjects\*.**



## Completing the Online Course Choice Form

On the JMG home page click on the **S2 Course Choice** link and then on **Respond to this survey**. A sample survey form is shown opposite. Your name will be attached automatically.

Select an answer for each question from the drop-down menus.

1. Select your **Gender**.

Click the blue arrow and select **F** or **M**.

Gender \*

2. Choose your **House**.

House \*

3. Select the name of your **Head of House**.

Head of House \*

4. **Social Subject**: Choose one of the options.

Social Subject \*

5. **Science Subject**: Choose one of the options.

Science \*

6. **Selecting Courses**: We want to know what your priorities are in the course choice process.

Use the drop down menu to:

- State the courses you are interested in
- Provide us with an order of preference
- Indicate to us two reserve choices

We will check to ensure that these courses are realistic ones for you to study in S3 and you will discuss this with your Head of House.

First Choice *	<input type="text"/>
Second Choice *	<input type="text"/>
Third Choice *	<input type="text"/>
Reserve Choice 1 *	<input type="text"/>
Reserve Choice 2 *	<input type="text"/>

7. Lastly, in the **Key Issues** box identify any of your choices which have not been recommended in your S2 report. Also, note any questions or comments you wish to raise with your Head of House.

## Sample Online Form

To view, click on **JMG, Surveys, S2 Course Choice** and **Respond to this survey**.

The diagram below shows what the S2 Course Choice page will look like on your screen. You make your choices from a range of options in drop down menus and tick boxes. Information listed in some of these menus is shown in the boxes on the right.

Portal Home Staff Office JMG JJMG [Jordanhill Media Group]

Jordanhill Media Group  
**S2 Course Choice: New Item**

Save and Close | Go Back to Survey

Gender \*

House \*

Head of House \*

Social Subject \*

Science \*

First Choice \*

Second Choice \*

Third Choice \*

Business Management  
Geography  
History

Biology  
Chemistry  
Physics

Art and Design  
Biology  
Business Management  
Chemistry  
Computing Science  
Design and Manufacture  
Geography  
Graphic Communication  
History  
Music  
Physics  
Spanish N5  
Mandarin N5