



# KEITH GRAMMAR SCHOOL



## S2 into S3 Subject Choice Booklet 2023

## **S2 Course Choices**

### **Changes to the Curriculum and Qualifications**

The way in which young people are educated, and the qualifications that they will be taking, has gone through quite a process of change over the last few years. S2 pupils will very soon be in the position of having to make the first of a series of choices; in this case which courses to follow in S3. They will not be deciding which Standard Grade or Intermediate courses to follow over a 2 year period – instead they will be choosing from 1 year courses that continue within the framework of a Curriculum for Excellence (CfE).

### **The Structure of S3 at KGS**

The purpose of S3 is to continue the Broad General Education begun at primary school and continued into S1&2, but to also allow a degree of personalisation and choice, and to prepare pupils for the qualifications stage starting in S4. The courses we intend to offer in S3 will not only develop specialist skills within subject areas, but will also continue to develop skills in Literacy, Numeracy, and Health & Wellbeing as well as Skills for Work, Life & Learning. S3 courses will not be assessed externally by the SQA and will carry no certification from outside bodies. The skills and qualities that pupils gain and develop will be collated by them in order to produce a personal profile which will provide a record of their achievements to date.

### **S2 into S3 Subject Choice**

Having consulted pupils, parents and staff at the introduction of CfE it was felt that a major priority at this stage is to prepare our young people for the qualifications they would like to aim for in the Senior Phase. However, there is still a requirement for pupils to maintain breadth in their curriculum. To try to balance these potentially competing demands each pupil will follow a core of Language & Literacy (English & Modern Languages), Mathematics & Numeracy, RMPS and Health and Wellbeing (core PSE, PE and UPS) - accounting for 17 periods in total. In addition each pupil will choose 6 elective courses, which will each be allocated 3 periods during S3 – taking up the remaining 16 periods. These choices that pupils make will include at least 1 subject from each of the 4 curricular areas not covered by the core courses, namely Science, Social Subjects, Expressive Arts/Health & Wellbeing and Technologies. The remaining choices are essentially free from within all the choice subjects available. To help you support your child with their learning each subject teacher has supplied you with ongoing feedback about progress in their subject. This will also assist in making decisions about future choices along with an indication of likely progression routes in S4 if a subject is also studied in S3. In this information booklet departments have included details about each S3 course and where they may lead in the future, both in terms of SQA qualifications and other options including College and vocational qualifications.

Shortly, Principal Teachers of Guidance will be speaking to all S2 pupils about these choices and I would encourage you to spend some time looking through the information and discussing the options. When making choices it is important to consider likely progression routes into qualifications as, although it is possible to change direction for S4, success at an appropriate level is much more likely in subjects studied in S3.

There will be a Parents' Evening on Thursday 30<sup>th</sup> November 2023 where you can make an appointment with your child's teachers/Guidance to discuss their progress/subject choice. You will be asked to finalise your child's choices and complete and submit the form via the school website by Monday, 5th December.

While we try to meet as many requests as we can it is inevitable that there will be some combinations that prove impossible. For this reason it is important that you indicate 6 choices in the second part of the form. Your child will get 4 subjects from this section. Regardless of this we would still discuss with a pupil any changes from their original choices.

### **What happens after S3?**

Towards the end of S3, pupils will again be making choices, this time for new courses in S4-6 at National 3, 4 & 5 and Higher. We will be encouraging pupils in S3 to make a plan for their learning over the following 2 or 3 years, with the option to re-choose each year if necessary. It is possible that pupils will be able to take up any course at National 4 level based upon what they have done in S2. The courses in S3 will give pupils the opportunity to progress straight to National 5 or, in some cases, directly to Higher during S4.

If you would like further information about the new qualifications in Scotland or more guidance on a Curriculum for Excellence, I have included details of a number of websites that you may find useful.

Yours sincerely,

Alan Bruce  
Head Teacher

Useful links

Scottish Qualification Authority  
<http://www.sqa.org.uk/sqa/41292.html>

Scottish Common Qualifications Framework  
<https://scqf.org.uk/interactive-framework/>

Parent Zone Scotland  
<https://education.gov.scot/parentzone>

National Parent Forum of Scotland  
<https://www.npfs.org.uk>

# **EXPRESSIVE ARTS**

Music: Performing Skills  
Art & Design

## **Music: Performing Skills**

### **What will you do?**

Your time will be divided between performing on two instruments of your own choice, composing, and understanding music through developing your listening skills. You will have the opportunity to learn a range of pieces of music as a class, in groups and individually. You will also be expected to perform to a small audience of your peers and/or in a concert at some point during the year.

### **What will you learn?**

In performing you will learn to play a range of different pieces specifically tailored to your ability. You will, at times, be able to choose your own pieces of music with help from your music teacher.

You will learn a variety of skills to help you compose your own music in a range of styles.

You will learn about musical concepts and how to recognise and identify them within different styles of music.

### **What will be expected of you?**

In performing you will be expected to work on a range of pieces on your two instruments, keeping a log to monitor your progress.

In composition you will create a variety of short pieces both on instruments and using computer software programmes; Muse Score, Soundation and Garage Band.

In listening you must regularly revise the concepts you learn and ensure that they are known and understood.

You will often be asked to work alone and it is your responsibility to ensure that you work to the best of your ability at all times.

### **How will you succeed?**

You will be assessed regularly to ensure that you are reaching the minimum standards required.

In Performing you will work on music appropriate to your level of skills and following successful recorded performance of your music you will move on to more challenging repertoire. You will present a final performance of a selection of your pieces on both of your instruments to an audience of your peers at the end of the year.

In Composition you will create a number of short pieces that will follow a given brief and will be assessed against specific criteria.

In Understanding Music you will complete listening assessments regularly, building up to a final listening paper at the end of the year.

### **Special information**

You do not need to play two instruments before starting this course; however you will need to show determination and dedication to learn to play both instruments to the best of your ability. You will be able to choose from the instruments that are available within the music department and may also bring instruments from home and use instruments that you learn outside school. Mrs Birch will be able to offer you advice and support in choosing your instruments and music.

### **Progression beyond S3**

Course completion will allow you to progress on to National 4/5 in Music: Performing Skills. The ability to play a musical instrument is a skill that will stay with you for life and is always thought of as a bonus on your CV as it demonstrates dedication, determination and drive.

## **Art & Design**

### **What will you do?**

The purpose of this course is to build upon pupils' knowledge and understanding from first and second year. Pupils will come to Art and Design two periods a week. This enables us to provide courses which are more intense and in depth. Pupils will develop a deeper understanding of the subject and will be better prepared for the Senior Phase.

### **What will you learn?**

The design of the Third Year course was considered in relation to the structure of the Senior Phase courses, where there is a Design, Expressive and Critical element, ensuring coherence and progression from one stage to the next.

The Third Year Course involves the following units of work:

**Expressive Unit** with a focus on observational drawing, media handling and awareness of the visual elements.

**Design Unit** which allows idea generation, development and awareness of design constraints.

**Critical Analysis Unit** which involves describing and explaining the work of artists and designers.

**Personal Project** which is self-directed by pupils and allows personalisation and choice.

### **What will be expected of you?**

#### **How will you succeed?**

The Art and Design Department expect that all pupils fully participate in all aspects of the course. Pupils should enter into the classroom organised and prepared to work. The environment is one which is conducive to learning. Therefore, in order to succeed in this subject, pupils must focus and concentrate on their work. The necessity for high levels of concentration and effort will be encouraged at all times by the teacher. Art and Design is a thinking subject which requires consideration and reflective thinking.

### **Progression beyond S3**

- National 4 Art & Design
- National 5 Art & Design
- Higher Art & Design
- Advanced Higher Art & Design
- NPA Photography (Level 5)
- Higher Photography (Level 6)

# **LANGUAGES**

**You will continue the language studied in S1/2**

### **S3 French/German – Languages for Life and Work (Compulsory)**

#### **What will you do?**

You will work individually and in groups to further develop the four skills of listening and talking, reading and writing in French/German (continuing the language you studied throughout Primary and in S1 and S2), as well as developing your own literacy, communication and employability skills.

You will be able to:

- further develop your language skills in practical and relevant contexts
- develop skills you can use in vocational and work based contexts (e.g. accessing job information, producing a CV, taking part in a mock job interview etc) including an employability project with a local company.
- develop skills that you can use and enjoy in daily life and for travel and leisure both now and in the future
- gain a deeper understanding of your own language and appreciate the interconnected nature of languages.
- explore the culture and everyday life in countries where French/German is used.

#### **What will you learn?**

You will learn to communicate effectively and with confidence in French/German by developing talking and writing skills.

You will learn to use a wide range of texts for reading and listening, whilst taking advantage of ICT resources to access texts and engage with others within school and beyond.

You will learn about the lifestyles and culture in French/German speaking countries in Europe and beyond through topics such as Travel and Tourism, Healthy Teens, Film and Media Studies and Languages in Work.

#### **What will be expected of you?**

You must take responsibility for your own learning, in both individual and group work.

You must be prepared to be fully involved in and contribute effectively in all group discussions and tasks.

You will be responsible for updating your profile and keeping your folio of assessments in text or digital form up-to-date throughout the course.

You will be expected to complete weekly homework to a good standard to support your learning.

#### **How will you succeed?**

You will be assessed on your ability to communicate effectively and with confidence in talking and writing by your teacher and by your peers. The quality of work in your passport/assessment folio will also be assessed by your teacher. There will be on-going in class assessment of your skills development in reading, listening, talking and writing through individual and group work. You will also have to show that you have gained experience in the skills needed to apply for a job

#### **Special information**

ICT will be frequently used throughout the course and you will be expected to use GLOW/TEAMS at home and in school to help you with class and homework.

#### **Progression beyond S3**

You will develop the necessary language and employability skills in S3 French/German to enable you to undertake a National 4 or National 5 qualification in French/German in S4. The natural progression route from National 5 continues onto Higher and Advanced Higher in S5 - S6. Having successfully completed National 5/Higher in one language, you could also opt to study a second language in S5/S6 at National 4/National 5/Higher level.

### **S3 Options for Language Learning**

With the increased period allocation due to the introduction of the 33 period week in the Broad



General Education (BGE), the Modern Languages department will be in the position to offer a wider range of options in the future.

Under the Scottish Government's 1+2 Language Learning policy, all pupils in Scotland will have the opportunity to learn their first foreign language (L2) continuously from Primary one until the end of S3. Pupils also have the entitlement from P5 until the end of S3 to learn other languages (known as L3).

At Keith Grammar School we will continue to offer French and German as the compulsory L2 languages (dependent on what has been studied at Primary school). In addition, pupils will also be able to also pick up the opposite language from their L2, and/or experience learning another language, which may include Spanish, Scots and British Sign Language.

# TECHNOLOGIES

Graphic Design  
Practical Craft  
Administration  
Digital Technologies

## **Graphic Design**

### **What will you do?**

The aims of the Course are to enable learners to:

- ◆develop skills in producing and interpreting sketches and technical drawings
- ◆become confident in using the 3D Inventor software package
- ◆understand the process of designing and producing a desktop published document

### **What will you learn?**

#### **Unit 1 : Technical Graphics**

In this Unit, learners will focus primarily on learning, understanding and producing orthographic drawings. Orthographics are the building blocks of Graphic Communication and it is essential that learners understand them fully before progressing on to other types of drawing. Learners will use CAD software and manual graphic communication tools to understand both processes and the advantages and disadvantages of each.

#### **Unit 2 : Presentation Graphics**

Students will study and develop their skills in a number of sketching techniques. Sketches are important as they allow us to get our ideas from our mind onto the page. Techniques covered will include isometric, 2 point perspective and exploded pictorials. Towards the end of the unit, students will develop their skills in Photoshop, using hand scanners to transfer manual drawings onto the computer to be rendered digitally.

#### **Unit 3: Desk-top Publishing**

Desk top publishing is a vast area and forms a significant part of the National 5/Higher Graphic Communication courses. In this unit students will learn several software packages to produce effective DTP documents. In order to maximise the impact of these documents, students will begin study of the design elements and principles that dominate the senior courses.

#### **Final Project:**

Students will culminate all of the learning in the course to create a 6 page folio to design a phone holder, custom to their own device. This will be then made in acrylic and taken home to keep. Students will be assessed at the end of each unit and the quality of their final folio.

### **What will be expected of you?**

Students will receive regular sketching homework to help develop their skills in this area. This is expected to be completed and handed in on time.

### **How will you succeed?**

Although the course is designed as three units, you should try to form links between all areas of Graphic Communication. This will allow you to improve the quality of all of your drawings and produce an excellent final folio.

### **Progression beyond S3**

Success in this course will provide an excellent grounding for students who wish to pursue National 5 Graphic Communication or National 5 Design and Manufacture.

## **Practical Craft**

### **What will you do?**

The course continues to build upon the practical skills in wood and plastic that have been developed in S1 and S2.

The aims of the Course are to enable learners to:

- develop skills in woodworking techniques learning new woodworking joints
- develop skills in measuring and marking out timber sections and sheet materials
- safe working practices in workshop environments
- practical creativity and problem-solving skills
- an understanding of sustainability issues in a practical woodworking context

### **What will you learn?**

Students will undertake several small woodwork projects, each introducing a new woodworking joint or technique. Students will also learn about approaches to finishing and be introduced to some of the machinery used at National 4/5. This is not a design course. Students will be given drawings to work to with the option for small customisation.

### **What will be expected of you?**

Students will undertake weekly log book exercises similar to those required at National 4/5 Practical Woodworking. Students must obey all rules and Health and Safety regulations to remain within the class. Any breach of Health and Safety will result in the student being removed from the practical workshop until a risk assessment can be carried out for that child.

### **How will you succeed?**

As this course includes the manufacture of several items in wood and plastic a course fee will be incurred.

### **Progression beyond S3**

This course will provide an excellent experience for any student wishing to continue on to National 4/5 Practical Woodworking.

Students wishing to undertake National 4/5 Design and Manufacture will also benefit greatly from this course.

## **Administration & IT**

### **What will you do?**

This course will involve a combination of Practical and Theoretical elements of Administration & IT. The topics are specifically tailored to ensure you will receive a general understanding of a variety of situations and areas that may be encountered in the world of Industry. This will include an awareness of the skills and qualities expected of staff within an administrative environment.

### **What will you learn?**

When developing your skills to be used in an administrative environment you will develop a greater understanding of practical skills whilst preparing a range of administrative documents, using software package such as: word processing, spreadsheets, databases and Powerpoint, publishing and graphics. As a result of this experience you will be expected to produce a range of business documents to a high degree of accuracy. There is an element of theory in the course: learning about the different types of office layout, how to analyse and prepare job descriptions, why good Customer Care is important in an organisation and the importance of staying secure whilst using technology in the workplace. You will be better prepared to enter the field of industry by learning the importance of team working in an organisation.

### **How will you succeed?**

Success will be indicated by the completion of a range of assignments and assessments which will demonstrate your understanding of the concepts of industry. Your administrative skills, IT and organisational skills will be monitored throughout the course.

### **Progression beyond S3**

Administration and IT (National 4), Administration and IT (National 5) or Business (National 4) or Business Management (National 5)

## **Digital Technologies**

### **What will you do?**

1. As part of a team, you will create Keyframe and StopFrame animations, including designing, implementing and editing a StopFrame animation similar to Wallace and Gromit, using different film/camera techniques.
2. You will edit different types of media, e.g. sound, image and video files, that you have captured as part of your animation.
3. You will embed your video, image and sound files into web pages, using an HTML structure and design using Stylesheets (used by professionals) that will give your web pages a consistent look and feel. In addition, you will add interactivity into your web pages to encourage a user to revisit your pages.
4. Whilst using a textual programming language that creates Windows (similar to those used in Microsoft), you will develop skills in analytical thinking, designing a sequence of instructions that allows a user to interact with a computer.

The Course enables you to develop a range of skills including analysis and problem solving, design and modelling, developing, implementing and evaluating digital solutions. The Course also enables you to develop knowledge and understanding of key concepts and processes, and the ability to apply these to a variety of modern-day problems; and an awareness of the impact of the web, computing and other information technology on the environment and society.

### **What will you learn?**

1. You will learn the different stages involved in creating animations, how to manipulate light in your animation, take still pictures and join them together to create the appearance of movement on screen.
2. You will learn how to create and manipulate different types of media that you have captured and how to embed these into your web pages to showcase your work, whilst using basic web page coding techniques.
3. You will learn how to program a computer to carry out a range of tasks from Surveys to find out who prefers Pepsi and Coca Cola to advanced decision-making processes, e.g. a program to bid for an item in an Auction – eBay.

### **What will be expected of you?**

You will have to be able to work successfully as part of a team when planning, creating clay characters and filming your animation. You will use the software design and development process to create your web pages and a variety of programs. You will use a similar process when developing multimedia products.

### **How will you succeed?**

You will be judged not only on the quality of your film/animation, web pages and programs produced but also by the organisational skills demonstrated throughout the course, and the ideas you have presented. Making a multimedia product is a highly methodical process and you will be expected to demonstrate a meticulous approach to your work.

### **Progression beyond S3**

Enhance your web page and program design and development skills through the Computing Science (National 5) OR Computing Science (National 4) courses.

# **HEALTH AND WELLBEING**

Learning in the Outdoors  
PE Performance Development  
PE Healthy Body and Mind  
Health & Food Technology

## **Learning in the Outdoors**

### **What will you do?**

- You will set up and run projects looking at the natural environment that involves maintaining the school garden area and wild spaces within the school grounds.
- You will learn camp craft skills including tent pitching and leave no trace fire lighting.
- You will learn basic outdoor first aid and how to manage emergency situations in the outdoors.
- You will learn bush craft skills such as shelter building.
- You will complete the SQA Cycle Maintenance Unit Level 4.
- You will learn basic bike handling skills within the school grounds.

### **What will you learn?**

- You will learn how to recognise and manage risk.
- You will develop the skills to become an effective contributor to group tasks.
- You will develop responsibility for your own learning.
- You will learn to be a confident individual.
- You will develop your literacy, numeracy and health and wellbeing in new environments.

### **What will be expected of you?**

- You will need to be ready to try new activities and challenges.
- You will need to be prepared to go outdoors on a regular basis.
- You will be expected to take responsibility for your own actions and learning.
- You will be expected to problem solve and use your own initiative.
- You will need a sense of fun and adventure.

### **What do I need?**

- All specialist equipment will be provided.
- A set of warm clothes and a change of shoes for use during the colder months.



## **Performance Development**

### **What will you do?**

This course is designed to introduce pupils to the theory as well as the practical elements of improving practical performance in a range of activities.

Performance Development is designed to prepare pupils for the National 5 Physical Education course.

The practical activities on the course may vary depending on pupils in class, availability of facilities and time of year. However, the main theoretical aspects will be covered irrespective of which activities are delivered.

Pupils will be experience a number of activities throughout the year and learn how to develop improve their performance in each one.

- Athletics
- Outdoor Games
- Indoor Games
- Racket Sports
- Aquatics (Swimming)
- Aesthetic Activities (Dance and/or Gymnastics)

Theory will underpin all activities and pupils will learn how to:

- gather information about their strengths and weaknesses
- use appropriate methods to improve their performance
- methods to monitor progress
- evaluate the success of a performance development programme

### **Assessment**

The course will be assessed in both practical and theoretical aspects and will largely follow the assessment structure of the National 4/5 PE courses. All of the assessment work is pass/fail at this level, with pupils covering:

- Factors Impacting on Performance
- One off Practical Performance
- Two Practical Performances

### **Progression beyond S3**

Successful completion of the course will allow progression to National PE, or Sport and Recreation.

## **PE Healthy Body & Mind**

### **What will you do?**

This is a **fun and active course** which will give pupils the opportunity to take part in activities in a non-competitive environment. Taking part for enjoyment and health improvement will be the focus of this course.

It is a **practical course** and so pupils will take part in a range of physical activities, both indoor and outdoor. There will be a focus on individual activities and working in small groups.

**Competitive team games will not feature.** Some of the activities on the course will be decided through discussion with the class. If there is an activity which interests the class then time can be given to that. The course will include some of the following activities:

- Gymnastics
- Dance
- Fitness - HIIT – Circuits/Boxercise
- Fitness – Yoga/Fitness Suite/Spinning
- Badminton
- Skipping
- Table Tennis
- Rounders/Softball

Pupils will also get the opportunity to understand and appreciate how physical activity can have a positive impact on their **health and wellbeing**. In particular, this will include identifying and experiencing the benefits that these physical activities can have on **mental health**.

### **Course Expectations**

Pupils are expected to take an active part in lessons by **bringing their PE kit to each lesson**.

An enthusiastic and cooperative attitude will be required for pupils to be successful in this course.

Entry to the course does not depend on your practical performance level. **Enthusiasm** and a **desire** to take part are more important.

Pupils will be expected to **work hard** and **support** each other.

### **Skills that will be developed**

- Significant aspects of Learning (Cognitive Skills; Physical Competencies; Physical Fitness; Personal Qualities)
- Moray Skills Framework (Creativity; Employability; Self-Management; Teamwork; Communication; Thinking; Interpersonal; Leadership)

## Health and Food technology

### **What will you do?**

During health and food technology you will be working through National 4 Health and Food Technology which consists of 3 units, and an added value unit. You will also complete a REHIS elementary Food Hygiene Certificate. During the double period you will learn in detail about safety in the kitchen, hygiene, nutrition, healthy lifestyles, product development and contemporary food issues. This will be achieved through written work, presentations and exam condition assessments. You will overall develop understanding in the links between food and health, food product development and consumers and the factors which effect their choice in food and food products. During single periods you will learn new practical skills. You will become increasingly skilled in working with food through a range of food preparation techniques and cookery processes. Practical periods will also revisit your knowledge of nutrition. We will also have a unit where you design a new dessert.

2 periods = written

1 period = single

### **What will be expected of you?**

You must come to class prepared to work and complete both practical and theory tasks. We ask that for every practical lesson you bring a container to take food home in. You must behave in an appropriate and safe manner in the kitchen and the classroom to keep yourself and others safe. You will be expected to complete all tasks to the best of your abilities and try your best in everything you do.

### **How will you succeed?**

Observational work done by the teacher, yourself and your peers will determine the success level of your practical performances, recorded on a checklist of requirements. Your knowledge will be assessed through written questions, end of unit assessments some under exam conditions. Project work will assess your understanding of the units and through the dishes you choose to make for different people/dietary requirements.

### **Progression beyond S3**

Completion of the course will allow you to progress to National 5 in Health and food technology or into National 4/5 Practical Cookery in senior phase. This course can help lead you into careers and further Skills for Work diplomas and degrees in the Health Sector and Hospitality.

# **SCIENCES**

Introduction to Biology  
Introduction to Chemistry  
Introduction to Physics  
Introduction to Science  
Introduction to Engineering Science  
Introduction to Practical Electronics

## **S3 Biology**

### **What will you learn?**

The S3 Biology course covers three units of work. These units mirror those undertaken at National 5 level and provide the basic foundations of knowledge required for the National 5 Biology course.

The units of work covered are:

- Cell Biology
- Multicellular organisms
- Life on earth

### **How will you succeed?**

Pupils are assessed via key area assessments within each unit. They also sit an end of topic assessment. These assessments are used to track pupil progress, alongside classwork, homework and other in class activities.

### **Entrance requirements:**

Pupils should select S3 Biology on the recommendation of their class teacher. The Biology course is designed to lead on to National 5 Chemistry in the senior phase.

Please note, pupils selecting S3 Biology should not also be selecting S3 General Science.

## **S3 Chemistry**

### **What will you learn?**

The S3 Chemistry course covers three units of work. These units mirror those undertaken at National 5 level and provide the basic foundations of knowledge required for the National 5 Chemistry course.

The units of work covered are:

- Chemical changes and structure – atomic structure and theory, chemical formula, bonding and thermodynamics
- Nature's chemistry – hydrocarbons, plastics and smart materials
- Chemistry in society – metals, their reactions and reactivity series

### **How will you succeed?**

Pupils are assessed via key area assessments within each unit. They also sit an end of topic assessment. These assessments are used to track pupil progress, alongside classwork, homework and other in class activities.

### **Entrance requirements:**

Pupils should select S3 Chemistry on the recommendation of their class teacher. The Chemistry course is designed to lead on to National 5 Chemistry in the senior phase.

Please note, pupils selecting S3 Chemistry should not also be selecting S3 General Science.

## **Introduction to Physics**

### **What will you do?**

You will be learning more about the science principles which underpin the world we live in and the technology we use to enhance our lives. You will carry out experiments which will demonstrate some of the laws of Physics in action, for example using light gates to investigate the speed and acceleration of moving vehicles and building electrical circuits. You will then write up scientific reports to communicate your findings. You will also use mathematical formulae to solve numerical problems and use the internet and textbooks to research, for example the waves which comprise the electromagnetic spectrum. You will be working in groups, pairs and individually.

### **What will you learn?**

The course covers units of work on Dynamics, (the Physics of moving objects), Electricity, Electronics, Energy, Waves, Gases, Heat and Space.

In the Dynamics unit you will carry out experiments to measure the average speed, instantaneous speed, and acceleration of moving vehicles, and find out how an understanding of physics can contribute towards road safety.

In the Electricity unit you will build electrical circuits and use them to find out the rules for current, voltage and resistance in series and parallel circuits. You will also use experimental results to prove the relationship between current, voltage and resistance.

In the Electronics unit you will learn about the behaviour of a variety of electronic components and build circuits which could be used in real life situations.

In the Waves unit you will learn about the physics of sound waves and how we hear. You will also learn about the properties of the different types of waves in the electromagnetic spectrum and how they are used in everyday life, from mobile phone communication to treating cancer.

In the Gases unit you will learn about the kinetic theory which explains the behaviour of gases in terms of particles, and learn about the relationships between the pressure, volume and temperature of gases.

The following skills will be developed throughout the course:

Thinking skills – you will be able to show your understanding of new concepts and apply this understanding to unfamiliar tasks. You will also evaluate experimental procedures and suggest improvements. You will learn how to deduce the mathematical relationship between variables plotted on a graph.

Practical skills – you will be able to follow oral and written instructions to carry out practical work safely.

Literacy skills – you will be able to communicate effectively by: writing, listening and contributing to class discussions.

Numeracy skills – you will build on the skills you started developing in Second Year Mathematics where you used the speed, distance, time formula to solve problems and apply these skills to three or four other mathematical formulae. You will have to draw tables and graphs and calculate mean averages.

### **What will be expected of you?**

You will be expected to take responsibility for your learning and use your time wisely in class. You will maintain a set of notes which will be used to revise from for class tests. You will work with others in experimental work, and play your part to make sure the experimental work is

successful. You must be prepared to develop your ability to use mathematical formulae. You will be expected to meet the deadlines given for both homework and class work.

### **How will you succeed?**

You will succeed if you are interested in understanding how the world around us works and want to find out more about the technology which enhances our lives. You will succeed if you: work productively during experimental work; spend time learning more about how to use mathematical formulae to solve problems; and undertake independent research. You will be assessed by end-of-topic tests, through oral and written presentations, and by observation as you carry out experiments.

### **Progression beyond S3**

This course will allow you to progress into the National 4 Science or the National 5 Physics course. A qualification in Physics can provide you with a range of skills which are valued by employers, such as teamwork, numeracy skills, logical thinking and problem solving. A qualification in Physics may also be required for careers such as mechanical engineering, electrical and electronic engineering, architecture, sports science, telecommunications, renewable energy, physiotherapy, radiotherapy, and radiography.

### **Careers**

Many jobs in the oil and gas industry also require a qualification in Physics.



## **S3 General Science**

### **What will you learn?**

The S3 General Science course covers three topics of work at National 3 level:

- Chemical changes and structure – this unit covers chemical reactions, the structure of the atom, pH and the periodic table
- Physics: waves and radiations – this unit covers wave characteristics, light, sound, the electromagnetic spectrum and ionising radiations
- Biology: life on earth – this unit covers ecosystems, food chains, food webs and intensive/organic farming methods

Pupils will be taught through a range of methods and activities including hands-on practical activities, discussion and written work.

### **How will you succeed?**

Pupils will be assessed via class assessments that will inform them of their progress and achievement within the course. Pupils will also be expected to complete the write up of at least one practical experiment per unit and submit this for marking.

### **Entrance requirements:**

Pupils should select S3 Science on the recommendation of their class teacher. The Science course is designed to lead on to National 4 Science in the senior phase.

Pupils should not select S3 Science and another, discrete science at S3.

## Progression pathways in science

BGE in S1 and 2 covering 36 experiences and outcomes in chemistry, physics and biology at level 3  
Combines formal and holistic assessments

General science covered a unit each of N3 chemistry, physics and biology leading to additional SCQF points at the end of S4

S3 discrete science covering national 4/level 4 outcomes to prepare pupils for the demands and rigours of the national 5 course. Can opt for 1, 2 or 3 discrete sciences

National 4 "science" award completed - note no external exam at the moment

NPA in applied science (SCQF level 5) covering physics, chemistry, biology and forensics. This is an internally assessed course with no formal exam

National 5 in a discrete science/combination of sciences. Option to drop to units only if attainment is poor and no improvement seen

National 5 in discrete science - UNITS ONLY (no exam or overall course award) 1 science

National 5 full course award with external exam (1, 2 or 3 sciences)

HIGHER in 1, 2 or 3 sciences

NATIONAL 5 full course award

HIGHER in discrete sciences

ADVANCED HIGHER in discrete sciences

NOTE all progression pathways are dependent on pupils making reasonable progress, acting on feedback and showing willingness to improve.

## **Introduction to Engineering Science**

### **What will you do?**

Engineering impacts on almost every aspect of our daily lives. This course aims to highlight to pupils the positive contribution engineering makes to our everyday lives and give the pupils knowledge and develop skills they would require if they wish to become engineers in the future.

### **What will you learn?**

The course will be grouped into three main topics:

- Introduction to Electronics and Control,
- Introduction to Mechanisms and Structures and
- Introduction to Contexts and Challenges.

The first topic, Introduction to Electronics covers basic electrical circuits and the current, voltage and resistance rules which govern them. The behaviour of the three basic logic gates, AND, OR and NOT are explored and simple circuits designed. Microcontrollers are used to operate electronic circuits so pupils will be given the chance to write flowcharts.

The second topic, Mechanisms and Structures, covers gears and motors, simple bridges and pneumatic circuits.

The third topic, Contexts and Challenges, covers the different branches of engineering and the skills and knowledge that different types of engineers require. The impacts of engineering on society, the economy and the environment are also explored.

The following skills will be developed throughout the course:

Thinking skills – you will be given opportunities to apply your understanding of concepts to unfamiliar circuits, technology, and situations.

ICT skills – you will be able to develop programming skills and use simulation software to study the behaviour of electronic circuits, pneumatic circuits, and gears

Literacy skills – you will be able to communicate effectively by: reading, writing, listening and contributing to class discussions.

Numeracy skills – you will get opportunities to use mathematical formulae to solve numerical questions.

### **What will be expected of you?**

You will be expected to take responsibility for your learning and use your time wisely in class. You will maintain a set of notes which will be used to revise from for class tests. You will work with others in group work and play your part to make sure the group work is successful. You must be prepared to develop your ability to use mathematical formulae and your ICT and programming skills. You will be expected to meet the deadlines given for both homework and class work.

### **How will you succeed?**

You will succeed if you are interested in understanding how the world around us works and want to find out more about the technology which enhances our lives. You will succeed if you: work productively during group work; spend time learning more about how to use mathematical formulae to solve problems; develop your programming and simulation skills and undertake independent research. You will be assessed by end-of-topic tests, and through oral and written presentations, and by observation as you work through class tasks.

**Progression beyond S3**

This course will allow you to progress into the National 4 Engineering Science or the National 5 Engineering Science course. A qualification in Engineering can provide you with a range of skills which are valued by employers, such as teamwork, numeracy skills, logical thinking and problem solving.

**Careers**

A qualification in Engineering may also be beneficial for college and university engineering courses careers such as mechanical engineering, electrical and electronic engineering, civil engineering, chemical engineering, and apprenticeships in engineering. A qualification in Engineering may be required for careers in the oil and gas industry, renewable and non-renewable electrical generation, and a range of manufacturing industries, including the whisky industry.

## **Introduction to Practical Electronics**

### **What will you do?**

The electronics industry is vital to everyday life in our society and plays a major role in the economy. This is a very practical course which will provide you with a broad practical introduction to electronics.

### **What will you learn?**

The course will be grouped into three main topics:

- Circuit design
- Circuit simulation
- Circuit construction

In the first topic you will learn about a range of different electronic components and the rules of electronic circuits. You will analyse electronic problems and design solutions to these problems. In the second topic you will use simulation software to assist in the design, construction and testing of circuits and systems and to investigate their behaviour. In the third topic you will assemble a range of electronic circuits, using permanent and non-permanent methods.

The following skills will be developed throughout the course:

Practical skills - you will be constructing electronic circuits using permanent (soldering) and non-permanent methods using safe working practices

Thinking skills – you will be given opportunities to analyse electronic problems and design solutions to these problems

ICT skills – you will be able to develop programming skills and use simulation software to study the behaviour of electronic circuits,

Numeracy skills – you will get opportunities to use mathematical formulae to solve numerical questions.

### **What will be expected of you?**

You will be expected to:

- work safely and ensure that everyone around you is safe.
- use time wisely in class and complete practical tasks on time.
- learn about the theory of circuits and how a range of electronic components behave.
- use mathematical formulae to solve problems involving electrical circuits.
- learn how to use simulation software to test electronic circuits before construction.

### **How will you succeed?**

You will succeed if you work safely and have the patience and resilience to develop the practical skills required to construct electronic circuits.

### **Progression beyond S3**

This course will allow you to progress into the National 4 or the National 5 Practical Electronics course.

### **Careers**

Electronics contributes not only to manufacturing, but to other sectors such as finance, telecommunications, material processing, oil extraction, weather forecasting and renewable energy. Within these sectors, a wide range of job opportunities are available for people with skills in electronics.

# **SOCIAL SUBJECTS**

Geography  
History  
Modern Studies  
Business

## **Geography**

### **What will you do?**

In S3 the class will study the following:

**Global Climate Change** – Pupils will study the causes, impacts and management strategies associated with the very pertinent topic of Global Climate Change.

**Earth: Power of the Planet:** Pupils will study the structure of the planet and how this structure contributes to natural volcanic and tectonic events; earthquakes and volcanoes.

**Population: 8 Billion and Counting:** Pupils will study the population of the planet, they will develop an understanding of the characteristics of the global population and explore the challenges a growing population creates for the future.

**The Cairngorms:** Pupils will study the physical process of glaciation and weathering within the context of the Cairngorms National Park.



## **History**

### **What will you do?**

In S3 History pupils can choose up to 5 topics from the ones listed below:

- The American Civil War
- Titanic
- The Highland Clearances and Successful Scots
- JFK and the Swinging 60s
- The Russian Revolution
- Hitler and the Rise of the Nazis
- WW1
- The Wild, Wild West

### **What will you learn?**

Pupils will develop an understanding of the history, heritage and culture of Scotland and an appreciation of their national heritage within the world. They will broaden their understanding of the world they live in by studying and learning from the past. Communication skills are important in History and both oral and written skills will be developed. The History course will also encourage pupils to develop research skills and, more importantly, assess the materials they are presented with by looking for purpose, bias and limitation. Pupils will be encouraged to use the materials from research to argue a case and come to a balanced conclusion. They will also learn the exam skills to see them through National 4/5 Qualifications in S4.

### **What will be expected of you?**

Pupils will be expected to work and behave to the best of their ability at all times.

Pupils will be expected to work in a variety of ways – on their own, in pairs and in groups.

Pupils will be expected to keep a folder of completed work and notes and a folio of assessments and good work.

Pupils will be expected to meet deadlines.

### **How will you succeed?**

Success will be measured in many ways – by looking at class work and determining how well it has been done, formal tests, peer and self-assessment, extended writing tasks and presentations.

### **Progression beyond S3**

S3 History can lead into National 4 and 5 History and then on to Higher. Pupils will be able to progress to National 4 and 5 in other Social Subjects such as Geography and Modern Studies.

## Modern Studies

### What will you do?

In S3 there will be a variety and a list of topics and issues to choose from.

Below is an example of topics that will be available:-

Terrorism (ISIS, IRA, Alqaeda, Animal Front) – Is Britain Broken?, USA, Democracy, Equality, Diversity and human rights, Rights and Responsibility

This year's course (2020-2021) is as follows:-

**Terrorism (ISIS, IRA, Alqaeda, Animal Front)** – pupils will learn about terrorism as a global phenomenon. It's impact on security and stability. Will also get to study some of their organisations.

**USA** pupils will study the American elections, the USA government, US Election, USA as a superpower and gun control.

**Is Britain Broken?** In this unit we will learn about life in Britain today and the issues that British people face. We will look at the causes, impacts and Government responses to issues such as poverty and crime.

After evaluating the areas of poverty and crime we will aim to answer the question, "Is Britain Broken?"

**Democracy** – pupils will learn about how the UK and Scotland's democracy work.

**Equality, Diversity and human rights** – pupils will recognise how diverse the UK is, the importance of diversity and learn about the importance of human rights.

**Rights and Responsibilities** – Pupils will study the legal system in the country and how law is designed to protect people and how laws are made.

### What will you learn?

Pupils will develop an understanding of the current affairs. They will study a wide range of current political, social and economic issues. The issues debated and discussed allow pupils to develop insight and understanding of contemporary matters.

### What will be expected of you?

Pupils will be expected to work and behave to the best of their ability at all times.

Pupils will be expected to work in a variety of ways – on their own, in pairs and in groups.

Pupils will be expected to keep a folder of completed work and notes and a folio of assessments and good work.

Pupils will be expected to meet deadlines.

### How will you succeed?

Success will be measured in many ways – by looking at class work and determining how well it has been done, formal tests, peer and self-assessment, extended project tasks, investigations, producing leaflets and posters and presentations.

### Progression beyond S3

S3 Modern Studies can lead into National 4 and 5 Modern Studies and then on to Higher. Pupils will be able to progress to National 4 and 5 in other Social Subjects such as History and Geography.

## **Business**

### **What will you do?**

This course will involve gaining knowledge and experience of the Business world. The topics are specifically tailored to ensure you will receive a general understanding of a variety of situations and areas that may be encountered in the world of Industry. This will include an awareness of the skills and qualities expected of staff within a business environment, coupled with developing an understanding of why businesses start up. You will explore topics such as: the range of financial options available to support businesses, creating the required financial statements, the importance of Marketing to an organisation, the methods of Operations available to organisations. This understanding will be put into practice by researching various businesses and carrying out practical activities.

### **What will you learn?**

When developing your skills to be used in the business environment you will develop a greater understanding of practical skills such as: word processing and Powerpoint, publishing and graphics. Although you will develop your IT skills, this is a more theoretical course, where you will learn how the different types of business are relevant in the modern world of industry and the importance of business planning and marketing a business along with how each Business will operate. You will be better prepared to enter the field of industry by learning the importance of team working in an organisation and by having a general awareness of financial statements in the accounting section of the course.

### **How will you succeed?**

Success will be indicated by the completion of a range of assignments and assessments which will demonstrate your understanding of the concepts of industry, along with teacher observation.

### **Progression beyond S3**

Business (National 4) or Business Management (National 5) or Administration and IT (National 4), Administration and IT (National 5)