



KEITH GRAMMAR SCHOOL



S2 into S3 Subject Choice Booklet 2021

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 8 elective courses, which will each be allocated 2 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.

You are welcome to contact the school via email should you wish to discuss your child's subject choice with the relevant Principal Teacher of Guidance. A member of the Senior Leadership Team will also be able to meet with you, virtually on the evening of Tuesday 1st December. Again, should this be necessary, you should contact the school via email. We will then look at organising virtual meetings. You will be asked to finalise your child's choices and return their form to the school by Friday, 4th 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

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
Food and Health Skills and Practices

Learning in the Outdoors

What will you do?

- You will set up and run projects looking at the natural environment that involves maintaining wild spaces within the school grounds.
- You will learn camping craft skills including tent pitching and fire lighting.
- You will get some 1st hand experience of jobs that get you working outdoors.
- You will organise and take part in a Highland Games event.
- You will learn basic mountain bike maintenance and bike handling skills.
- You will learn basic outdoor first aid and how to manage emergency situations in the outdoors.

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.

Progression

This course has many progression routes. You can go on to study SCQF level 5 Leadership Award, Duke of Edinburgh and various national activity-based awards such as “*go-mountain biking*”.

PE 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.

The course is designed to prepare pupils for National 4 and 5 Physical Education Course as well as being a “stand alone” course.

The practical activities on the course may vary depending on pupil choice, availability of facilities and time of year. However, the main theoretical aspects will be covered irrespective of which activities are delivered. This will primarily be done through the practical activities engaged in by the pupils.

There will be six units covering a broad range of experiences and outcomes. Each unit will be used to deliver a specific element of theory.

- Outdoor Games (Hockey and/or Football)
- Indoor Games (Basketball)
- Racket Sports (Badminton)
- Fitness Studies
- Aquatics (Swimming)
- Aesthetic Activities (Dance and/or Gymnastics)

There will be six elements to the theoretical studies on this course:

- Factors Impacting on Performance
- Personal and Physical Qualities
- Roles and Responsibilities
- Rules and Regulations
- Preparation and Evaluation of Performances

Assessment

The course will be assessed in both practical and theoretical aspects and will largely follow the assessment structure of the National 4/5 Courses. Pupils will be given a final grade A-E based on Factors Impacting on Performance unit (40%) and the preparation (10%) and evaluation (10%) of a one off Practical Performance (40%) in an activity of the pupils' choice. FIP and Performance booklets will be found in the Performance Development folder in the PE workgroup.

Progression beyond S3

Successful completion of the course will allow progression to Nat 4/5 Physical Education.

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)

Food and Health Skills and Practices

What will you do?

Working through National four units in Health and Food Technology

You will become increasingly skilled in working with food through a range of food preparation techniques and cookery processes.

You will integrate your learning in project activities in the design, creation and promotion of new dishes thus applying your knowledge in practical ways.

You will produce a folder of your work including photographs, recipes and sensory observations about foods prepared and cooked.

You will 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.

What will you learn?

You will learn to apply a range of food preparation and cookery skills to a variety of dishes for a variety of situations.

You will learn to understand the uses of ingredients and why they are used in certain ways.

You will learn to select and use combinations of ingredients for different purposes.

You will handle a range of food preparation equipment and choose those best suited to tasks within your projects.

You will learn how to create and complete investigations to help inform your final dishes, questionnaires, surveys etc.

What will be expected of you?

You must come to class prepared to work and complete both practical and theory tasks.

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 unit (food for health, product development and Factors affecting consumers and through the dishes you choose to make for different people/dietary requirements.

Special information

A course fee will be charged for this course to partially cover food costs.

Progression beyond S3

Completion of the course will allow you to progress to National 4/5 in Hospitality or National 4/5 Cake Craft.

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 Biology

What will you do?

Biology is the study of life. The S3 biology course begins looking at cells and progresses to the life of multicellular organisms. The final section of the course emphasises how plants and animals are adapted for survival.

What will you learn?

The course has been divided into the following three broad topics.

- An introduction to cell biology which covers cell division, respiration, microorganisms and how inherited characteristics are passed on to the next generation.
- Multicellular organisms look at the inheritance of characteristics and how stable body conditions are maintained. You will also find out why variety is necessary for the survival of a species.
- Life on Earth involves the study of how plants and animals depend on each other and how they are adapted for survival. You may also learn how to propagate your own plants. You will investigate the nitrogen and carbon cycles and why they are important in the environment.

What will be expected of you?

- To plan and design experiments which demonstrate fair testing.
- To present and report your findings in a variety of ways.
- To take care and respect any live material used in your classwork.
- To conduct experiments carefully and safely.
- To participate in class discussions which deal with the moral and ethical issues relating to Biology work in the wider world.
- To be open to new ideas and respect the opinions of others in the class.
- Use references to find relevant information.
- Expectation of participation in fieldwork in the school grounds and outside Keith.

How will you succeed?

Assessment will take the form of scientific report writing, practical techniques (for example setting up a microscope or sampling living organisms) and debate on ethical issues. Assessment will be ongoing throughout the course including both formal end of unit assessments and in class informal assessments. Key activities will prepare pupils for the internal assessments which are mandatory at National 5 level.

Special information

Suitable outdoor clothing and footwear would be required for any fieldwork undertaken.

Progression beyond S3

On completion of this course progress can be to National 4 in Science or National 5 Biology. Thereafter Biology courses can lead to Higher Human Biology.

Careers

Healthcare related: medicine, veterinary science, nursing, physiologists, pharmacologists, dieticians, dentists, dental nurses, radiographers, health promotion, and medical sales.

Sports related: sport scientists, nutritionist.

Environment related: conservation scientists, forestry rangers, environmental managers, flood risk managers, charity worker.

Media related: science journalist, science writer, science broadcaster.

Education related: teacher, college/university lecturer.

Industry related: medical laboratory technician/scientist, research and development scientist.

Introduction to Chemistry

What will you do?

Chemistry, the study of the properties of materials and their chemical reactions, permeates all parts of our everyday lives from the plastic designed for use in mobile phone to the chemical reactions occurring in our own bodies. The general aim of the course is to develop skills of scientific enquiry, investigation and knowledge and understanding of chemical concepts in society. Through a variety of approaches, pupils will acquire and apply knowledge and understanding of chemical concepts and develop this through an application-led approach, including practical activities.

What will you learn?

The course is divided into three units –

- Chemical changes and structure – the structure of the atom is investigated along with the discovery of the periodic table. Pupils will investigate chemical reactions and how to write chemical equations.
- Nature's chemistry – the formation and reaction of fossil fuels is investigated. Alternative energy sources are considered and practical investigations include measuring the energy content of fuels.
- Chemistry in society – the properties and reactions of metals are investigated. Pupils will also get the chance to research and investigate smart materials and their impact on our everyday lives.

The following skills will be developed throughout the course.

Thinking skills – understanding of new concepts, evaluating evidence and analysing results.

Practical skills – following oral and written instructions in order to carry out practical work safely.

Literacy skills – communicating effectively with staff and peers through written work.

Numeracy skills – application of numeracy such as calculating averages and multiplication.

Research skills – finding information from reliable resources, processing this information and presenting it in an appropriate format.

Study skills – developing an understanding of how to revise and implementing a variety of revision techniques.

What will be expected of you?

- To show a mature attitude towards your studies by revising regularly and respecting the learning of others in the class.
- Be responsible for maintaining a set of notes containing all learning, practical findings and research.
- To conduct risk assessments before carrying out practical work to ensure that both you and the others in the class are safe at all times.
- To meet the deadlines given for both homework and assessment tasks.

How will you succeed?

Assessment will be ongoing throughout the course including both formal end of unit assessments and in class informal assessments. Key activities will prepare pupils for the internal assessments which are mandatory at National 5 level.

Progression beyond S3

Completion of this course will allow progress into National 4 in Science or National 5 in Chemistry.

Careers

As well as practical knowledge of the subject, chemistry students develop many other skills prized by employers such as problem solving, numeracy, communication, creativity and data analysis. Gaining these skills means potential for a future in all sorts of careers from finance to public relations.

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 Energy unit you will do research to find out about current developments in generating electricity using renewable energy resources and find out how countries across the world are generating electricity. You will use your research findings to produce a report on the use of renewable energy to meet our electricity needs. You will also carry out experiments to determine factors which affect the efficiency of renewable energy resources.

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.

In the Heat unit you will learn about the factors which affect the heat energy taken in or given out by an object and the factors which affect the heat energy taken in or given out when an object changes state.

Finally, in the Space unit you will research some key developments in technology and find out how these developments have increased our knowledge of the universe.

Introduction to Physics (continued)

What will you learn? (continued)

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

Introduction to Science

What will you do?

Working in groups or, at times, individually you will be responsible for the making of notes on the areas you are learning for use for study and revision. You will also carry out research, and plan, carry out and produce scientific reports for practical experiments and investigations.

What will you learn?

You will develop your scientific skills and carry out practical and other learning activities. This course will help you consolidate your learning of the topics covered in S1 and S2 and deepen your understanding of the science involved.

The following skills will be developed throughout the course.

Problem solving skills – you will be able to show your understanding of new concepts and apply this understanding to unfamiliar tasks. You will also be able to analyse and evaluate your work.

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

Investigative skills – you will be able to plan and carry out a fair test and write a written report of your findings.

Literacy skills – you will be able to communicate effectively by writing and by listening and talking to your teacher, to others during group work or in your class as a whole.

Numeracy skills – you will be expected to use and develop a number of numeracy skills such as measuring, drawing and understanding tables and graphs and calculating averages.

Research skills – you will be able to choose and use a variety of reliable resources to produce both written and oral presentations.

Study skills – you will be able to revise your work thoroughly in order to do the best you can in assessments.

What will be expected of you?

You will be expected to show a mature attitude towards your studies by revising regularly and respecting the learning of others in the class.

You will be responsible for maintaining a set of notes containing all your learning, practical findings and research.

You will be expected to meet the deadlines given for both homework and assessment tasks.

How will you succeed?

You will be assessed on your study and research through a series of oral and written presentations and more formal assessments at the end of each unit. Your ability to be safe and carry out a number of practical skills will also be assessed.

Progression beyond S3

Completion of this course will allow you to progress into National 3/4 in Science.

A qualification in Science can provide you with a whole range of useful skills that are highly valued by employers of all kinds, such as team work and analytical, problem solving, communication and numeracy skills.

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. It then introduces to the pupils the transistor which is a voltage-operated switch used in automatic sensing circuits. 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 simple software programmes.

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. 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.

SOCIAL SUBJECTS

Geography
History
Modern Studies
Business

Geography

What will you do?

In S3 the class will study the following:

A Study of the River Isla – pupils will carry out fieldwork on the River Isla and write it up as an AVU in preparation for the National exams. A classroom based investigation may replace the River Isla study or an alternative fieldwork topic might be carried out.

Glaciation and Coasts – looking at processes that shape the land.

Global Climate Change – pupils study the causes and effects of climate change. They will also look at strategies to manage climate change.

Limestone – we look at limestone features such as caves, stalagmites and stalactites and explain how these features are formed.

World Cities – looking at the growth of cities in the rich world and the poor world.

Health – this topic looks at diseases of the rich countries and poor countries.

Tundra – What is it? Where is it? How has life changed for people who live there? Pupils also complete a study on the trans-Alaskan oil pipeline.

Farming – looking at the different types of farming that exists in the UK. Modern developments in farming is also studied.

What will you learn?

Pupils will develop an understanding of the world that they live in. Contexts will range from the Home Area, Local Region, Scotland, UK and Europe to the World. There will be a focus on skills with some field work skills using the local environment such as Keith and the River Isla. Pupils will be given some choice in the topics that will be covered. There will be opportunities for investigation and project work. This will prepare pupils for the added value units in National 4 and 5.

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, investigations, producing leaflets and posters and presentations.

Progression beyond S3

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

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)