



National 5
Subject
Options



Welcome

Ms Johnston
Assistant Head (Academic)

This guide has been designed to help you make informed decisions about the subjects you may wish to study for National 5.

It is important that you are aware of what each course entails so if you have any questions about any of the subjects, please refer to the Head of Department or your current teacher in that subject.

This can be a daunting time, but we are always here to help so please do not hesitate to get in

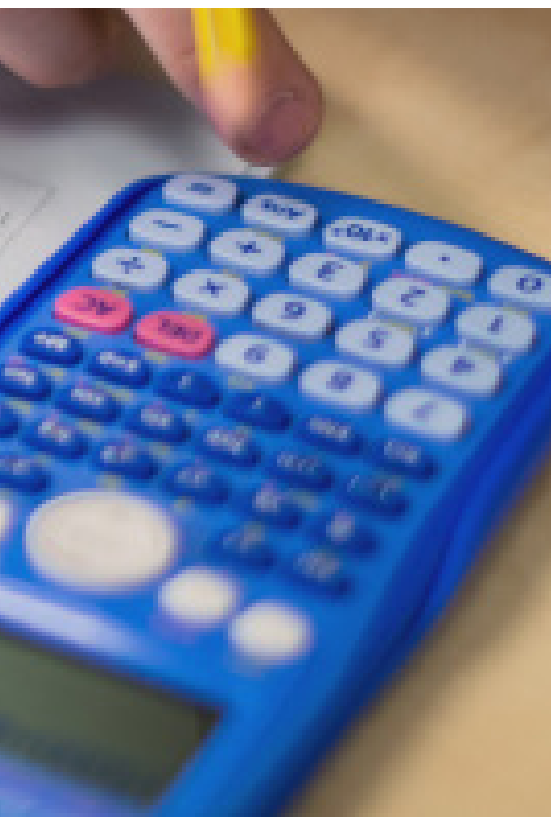
touch with me, Ms Johnston or your Year Head, Mr McDougall. Subject teachers will also be able to help with any enquiries you have about their subject.

I very much hope that this guide has gone some way in helping you make important decisions and look forward to seeing your progress through the school. Before you know it, it will be time for Advanced Highers!

Accounting & Business Management

Business and enterprise are at the heart of national growth and development. Business related courses offer you the opportunity to access, understand and contribute to the dynamic business environment.

The courses offered at Wellington are of benefit to anyone contemplating a career in Business, Government, Commerce, Finance, Social Studies and Management and for professional qualifications in Law and Accountancy.



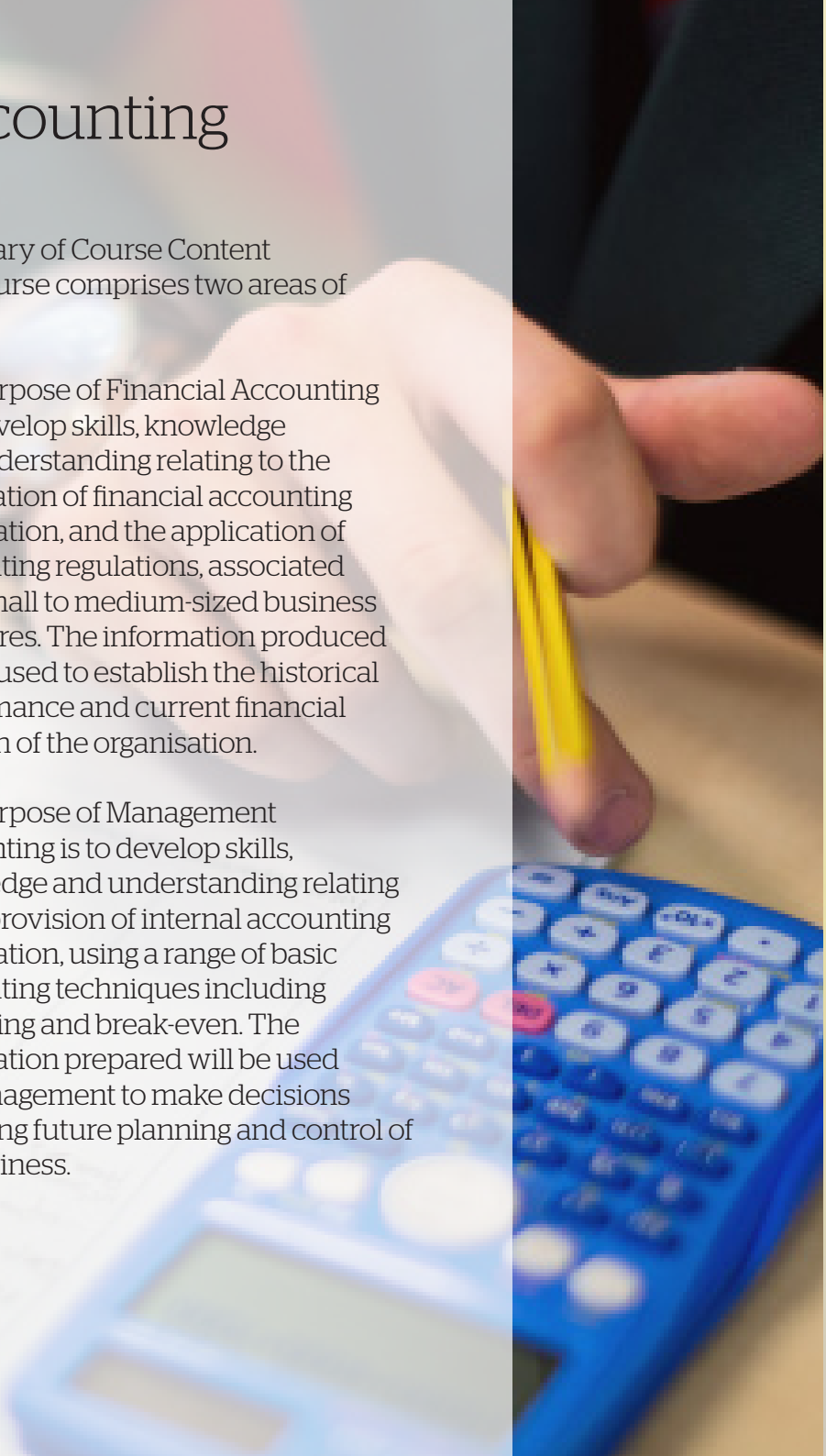
Accounting

Summary of Course Content

The course comprises two areas of study:

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

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





Business Management

Summary of Course Content

The course is made up of five areas of study:

Understanding Business

Learners are introduced to the business environment while developing skills, knowledge and understanding of enterprise, and the role of different types of business organisations in society. They also learn about the internal and external environments in which organisations operate, and the role of stakeholders in business.

Management of Marketing

Learners will develop skills, knowledge and understanding of the importance to organisations of having effective marketing systems. They learn about the processes and procedures organisations use to maintain competitiveness, and how marketing can be used to communicate effectively with consumers, maximising customer satisfaction

Management of Operations

Learners will develop skills, knowledge and understanding of the importance to organisations of having effective

operations systems. They learn about the processes and procedures used to maintain quality through the effective management of suppliers, inventory, and methods of production in an ethical manner.

Management of People

Learners will develop skills, knowledge and understanding of the issues facing organisations when managing people. They learn about the theories, concepts and processes relating to human resource management, and how employees contribute to the success of organisations.

Management of Finance

Learners will develop skills, knowledge and understanding of the issues facing organisations when managing finance. They learn about the basic theories, concepts and processes relating to financial aspects of business, when preparing and interpreting information to solve financial problems facing organisations.

Art & Design

Alongside the nurturing of talent, Art & Design develops many important skills for later life including problem solving, creative and entrepreneurial thinking, critical analysis, independent learning and the organisation and presentation of ideas.

These not only contribute to the well-rounded education and higher order thinking skills increasingly desired by universities and employers, but are highly relevant within many far ranging careers. Students of Art & Design need not simply choose the subject in order to pursue art-related vocations. In business, creative thinking is vitally important too. Careers may include: Advertising, Animation, Architecture, Archaeology, Art Therapy, Community Arts, Conservation & Restoration, Dentistry,



Fashion/Textile Design, Fashion Management, Gallery/Museum work, Occupational Therapy, Graphic Design (including Digital Design), Interior Design, Product Design (Engineering), Teaching, Photography/Film, Town Planning or Web Design.

Summary of Course Content

The course is made up of two areas of study. You will create a portfolio of work over the two years which will account for 80% of your overall grade in addition to a question paper assessing knowledge and appreciation of the working practices of artists and designers.

Expressive Activity

You will develop a range of creative ideas in response to selected stimuli within a context such as portraiture, still life or landscape painting. This will include analytical studies and experimentation with a range of materials and techniques in 2D or 3D formats, leading towards refined ideas and one major piece of expressive work. This outcome, and a selection of the research and development ideas that inspired it, will form the first part of a folio. You will also develop a critical understanding of artists' working practices and

the social and cultural influences affecting their work.

Design Activity

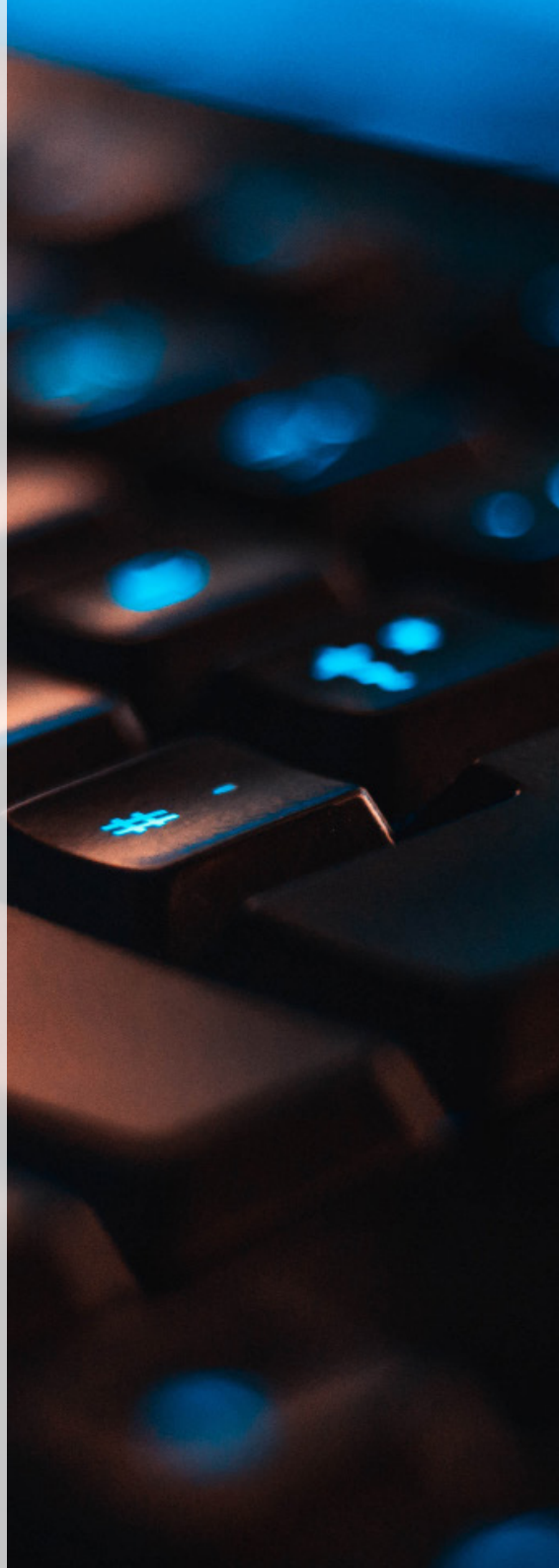
You will plan, research and develop creative design work in response to a design brief within a single area such as jewellery, graphics, textile, interior, environmental (including architecture) or product design. Using creativity, problem solving and critical thinking skills you will consider a range of possibilities and resolve design issues and constraints.

This process will include experimentation with a range of materials and techniques in 2D or 3D formats, leading towards refined ideas and a solution (one major piece of design work). Your solution, and a selection of the research and development ideas that inspired it, will form the second part of a folio. You will also develop a critical understanding of designers' working practices and the social and cultural influences affecting their work.

Computing Science

Computing Science is vital to everyday life – socially, technologically and economically; it shapes the world in which we live and its future. Computing is embedded in the world around us, from systems and devices in our homes and places of work, to how we access education, entertainment, transportation and communication.

Understanding computational processes and thinking is also vital to many other fields including science, economics, business and industry. While many learners will want to become computing professionals, all will benefit from the development of these foundational skills and the knowledge necessary to meet the needs of society today and for the future. It is one of the few fields that offers the opportunity to earn while working towards a Degree through Graduate Apprenticeships in Software Development, Data Science & Cyber Security. The number of different disciplines within Computing are vast such as Software & Web Development, Digital Forensics, Ethical Hacking, Data Science, Networking & Security. Due to the Skills shortage within Computing fields within Scotland, it can be a very lucrative career choice.



Summary of Course Content

The National 5 Computing Science course has four areas of study:

Software Design & Development

In this topic, students develop knowledge, understanding and practical problem-solving skills in software design and development. This develops their programming and computational-thinking skills by implementing practical solutions and explaining how these programs work. Students are expected to analyse problems, and design, implement, test and evaluate their solutions.

Computer Systems

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

Database Design & Development

In this topic, students develop knowledge, understanding and practical problem-solving skills in database design and development. This allows

students to apply computational-thinking skills to analyse, design, implement, test, and evaluate practical solutions, using a range of development tools such as SQL.

Web Design & Development

In web design, students develop knowledge, understanding and practical problem-solving skills in web design and development, through a range of practical and investigative tasks. This allows students to apply computational-thinking skills to analyse, design, implement, test and evaluate practical solutions to web-based problems, using a range of development tools such as HTML, CSS and Javascript.

There are a number of activities offered by the Computing Science Department. Pupils will be given the opportunity to compete in National Cyber Security competitions such as the Cyber First program which is backed by GCHQ. Pupils will also be given opportunities for leadership roles through the departments Cyber Security program that delivers Cyber Resilience & Internet Safety workshops within the Junior School.

English



National 5 English is an essential qualification that is fundamental to developing the ability to communicate effectively, and understand increasingly complex ideas that apply to all aspects of life.

Central to the subject is the study of a wide range of modern and traditional literature, and the creation of original texts.

Summary of Course Content

There is one internally assessed unit: Spoken Language (Talking and Listening) and two externally assessed units:

1. Portfolio (two pieces, one broadly creative and one broadly discursive)
2. Examination with two question papers

Skills

Learners will be able to:

- Listen, talk, read and write, as appropriate to purpose, audience and context
- Understand, analyse and evaluate texts, including Scottish texts, in the contexts of literature, language and media.

- Create and produce texts, as appropriate to purpose, audience and context
- Apply knowledge and understanding of language

Opportunities for Learners
Learners will be able to:

- Use language to communicate ideas and information
- Use creative and critical thinking skills
- Develops critical literacy skills and personal, interpersonal and team-working skills
- Appreciate a wide range of literature and texts, from their own cultural heritage and history, as well as the culture and history of others

Application of skills

English nurtures the essential ability to communicate well and think critically. As such, it enables the learner to succeed in all aspects of life. It is particularly useful for courses in English Literature, Media, Social Sciences, Humanities, Advertising, Politics, Law, Education, Journalism, Business and Commerce.

Geography

Geography at National 5 provides a broad range of interesting topics from the management of natural hazards to the geography of human health, physical landscape formations and the world's growing population. There is something in the course to suit all candidates due to the breadth of the subject matter and its unique location - spanning the gap between social subjects and science.

Whilst popular as a discreet subject beyond school, Geography can also be successfully combined with a range of other subjects, which could lead to the following areas of further study: Geology, Meteorology, Geophysics, Surveying, Journalism, Banking, Tourism, Planning, Publishing, Architecture, Cartography, Archiving, Environmental Health, Ecological Science,

Coastal Management, Forestry, Land Policy, topographic Science, Navigation, Resource Management, Tourism Management and Zoology.

Summary of Course Content

The specification provides students with the opportunity to cover fundamental concepts with an exciting topic choice. Students will not only develop a broad knowledge and understanding of the subject but will also develop a wide range of 'transferable skills', through investigations incorporating geographical skills and enquiry skills, as well as developing analytical and communication skills. These skills will be of use throughout a student's future career. Students will also learn through the use of new technologies, including GIS, to assist geographical investigation.

In S3 you will cover Coastal Formations and Land Use Conflicts, the developing city of Rio de Janeiro, the causes, impacts and solutions to Climate Change, World Population Change, the UK's Weather and Development & Health, where

various diseases are studied in detail.

In S4 you will undertake a fieldtrip to Loch Lomond where data will be collected for the completion of your Assessment Assignment (worth 20% of your grade). You will also study Glacial Landscapes and the conflicts found there, the developed city of Glasgow and Rural Geography. The department also offers a biannual trip to Iceland for National 5 pupils to experience some awe-inspiring geography in a truly exceptional setting.




Be The Best Learner You Can Be

By Mrs Jakeman, Head of Support for Learning

Support for Learning at Wellington is all about enabling pupils to achieve their full potential. One of the most important elements of this is equipping pupils with revision skills, study skills and coping strategies that will help them to learn well independently and get the most from their education. One of the most common things we notice is pupils whose approach to studying is

spending hours reading over pages and pages of notes. They are then disheartened with poor results. Do you recognise this in yourself?

Learning to study effectively is vitally important not just in school - they also help young people to be successful at university and in the workplace, where working on your own initiative is essential. Wellington



pupils benefit from PSE lessons about how to learn effectively and teachers across all subjects promote learning strategies, specific to their subject. In addition, a range of SfL workshops are offered to all pupils across the senior school to help develop skills and knowledge further.

Does the stress of exams get on top of you? Don't know where to start when it comes to studying? Perhaps it seems impossible to remember everything you need to?

If you can answer 'yes' to any of these questions, attending a workshop would be beneficial to you.

Quite often a small change in approach can make a big difference. The workshops are open to any pupil who wishes to attend and details will be made available online - you will be given plenty of opportunities to register!

The aim of these workshops is to add strategies and methods to your tool belt so that you can vary your approach and find ways that work for you. Workshops usually cover the following: memory skills; revision skills; making a revision plan for exams; effective home learning; coping with exam stress; knowing your strengths and using them; and exam technique.

We would encourage you to sign up when you see these workshops advertised. Not only will you learn new learning skills but you will ultimately benefit when it comes to exam time - no matter what level of exams you are sitting.

History

“The study of History helps us to understand change in the past and how this has shaped our contemporary society today. Studying History fosters a range of skills such as learning how to work independently or with others; researching, analysing and communicating findings as well as defending and supporting opinions against criticism. A degree in History can lead to almost any career but some of the most common include teaching, research, archiving and heritage, politics, journalism, business, commerce and law.

The National 5 History course covers three units which study Scottish, British and World History themes. Pupils studying the National courses are assessed on two elements: knowledge and source skills in the form of course work assessments, an internal assignment and an external exam.

Unit 1 is British History - The Atlantic Slave Trade 1770-1807 (a study of the nature of the British Atlantic slave trade in the late eighteenth century, changing attitudes towards it in Britain and the pressures that led to its abolition, illustrating the



themes of rights, exploitation and culture). The Triangular trade and its effects will be explored as well as the impact of Britain's involvement in the Caribbean. The course then looks in depth at the experience of the captive slaves and the extent of slave resistance. The course finally reflects on the inspiring abolitionist campaigns and the reasons for their eventual success.

Unit 2 is Scottish History - The Era of The Great War 1900-1928 (a study of the experiences of Scots in the Great War and its impact on life in Scotland). This topic considers the impact of technology on the soldiers on the Western Front, as well as the Scottish trench life experience and the nature of recruitment. The topic also explores the way in which the war changed life for people at home in Scotland specifically, as it began to impact every aspect of life both during and after the event. The course ends with an evaluation of the domestic impacts of the war in relation to key themes including: society, industry, economy and politics.

Unit 3 is European/World

History - Red Flag: Lenin and the Russian Revolution, 1894-1924 (a study of the collapse of Imperial rule in Russia and the establishment of Communist government, illustrating themes of ideas, conflict and power). The course will look in depth at Imperial Russia, its government and people. The causes and events of the 1905 Revolution are examined along with the political changes after 1905. The causes and effects of the February revolution and the failure of the Provisional Government will also be explored in detail. Finally, there will be an examination of the reasons for the success of the October Revolution and Lenin's maintenance of power thereafter, including factors such as: Bolshevik seizure of power strategies, Lenin and Trotsky's roles, the Civil War and the nature of the Soviet state."



Wellington is the only school in the South West of Scotland where you have the opportunity to study Latin and Classical Studies. Future destinations for Latin students may include, but are not limited to degrees in Law, Languages, History, Archaeology and Business.

include: Pliny's story of the Haunted House, and the myth of Daedalus and Icarus contained in Ovid's poem, the Metamorphoses.

Summary of Course Content

National 5 Latin has two components: Translation and Literary Appreciation.

You will study a series of passages based on Roman texts on topics such as Roman History, philosophy and so on. These texts will equip you with sufficient knowledge of grammar and syntax to reach the standard required for National 5 Translation. In S3, you will study translation using stories based around the fascinating myth of Cupid and Psyche as told by the Roman author Apuleius in the second century AD.

You will also develop your knowledge of the language and skills of analysis and interpretation. Texts used

Mathematics

There is no doubt that the possession of some mathematical knowledge provides an important key to understanding the world in which we live since it occurs in one form or another in so many different aspects of our lives. Simple things like doing the weekly shopping, checking our pay-slips at the end of the month, consulting a rail or bus timetable, timing a procedure or even reading a newspaper can all involve an element of mathematical knowledge.

The scientist uses mathematics as a language which is essential to our understanding of things which occur in the natural world, whilst the engineer must ensure that the proposed bridge or building will withstand the various stresses which will be applied to it, and the economist must be in a position to recognise trends in financial dealings. These applications are obvious but remember also that, for example, the musician will need to appreciate the mathematical relationships within and between rhythms and the artist has to understand perspective.

Mathematics features so prominently in people's lives that



it is difficult to imagine not studying it at some level. National 5 Mathematics is designed to cultivate skills in using mathematical language, to explore mathematical ideas, and to develop skills relevant to learning, life and work in an engaging and enjoyable way. It builds on prior learning and makes progress in a number of key skills, knowledge and understanding areas: numerical, geometric, algebraic, trigonometric and statistical.

Numerical

As well as dealing with rounding and operations with fractions, pupils work with percentages in the contexts of appreciation/depreciation and reverse percentages. The laws of indices and rules for surds are met for the first time, two things that are also crucial to mathematical progress beyond National 5.

Geometric

Within geometry at National 5, pupils extend their knowledge of both the straight line, including gradients, intercepts and equations of lines, and the volume of spheres, cones and pyramids. Circle geometry introduces arcs and sectors

of circles, and the relationship between a chord and perpendicular bisector. Meanwhile, pupils examine Pythagoras' Theorem, including its converse and its use in 3-dimensions, and meet for the first time the interrelationship between length, area and volume when studying similarity. The idea of vectors, including directed line segments, components and magnitude, is introduced, alongside 3-dimensional coordinates.

Algebraic

There is a great deal of emphasis at National 5 on the development of skills within algebra, essentially the language of mathematics. Key components are expanding brackets and factorising algebraic expressions, including common factors, the difference of two squares and trinomials. Knowledge of fractions is extended to include algebraic fractions, where pupils apply the four operations and reduce an algebraic fraction to its simplest form. The solution of linear equations and inequations is now extended to include simultaneous equations from an algebraic and graphical approach, and the concepts of function notation and changing the subject of a formula are encountered. Quadratics play a large part at National 5, including graphs of quadratic functions and

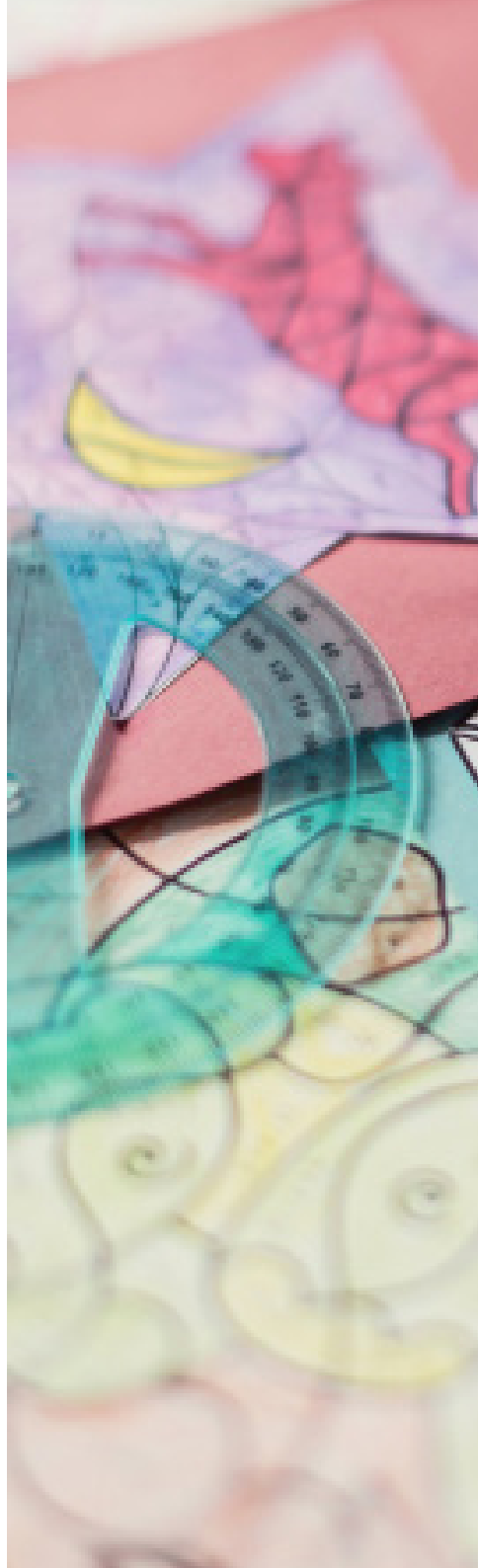
their features, completing the square, solving quadratic equations by means of a graph, factorising or using the quadratic formula, and use of the discriminant to consider the number and nature of roots.

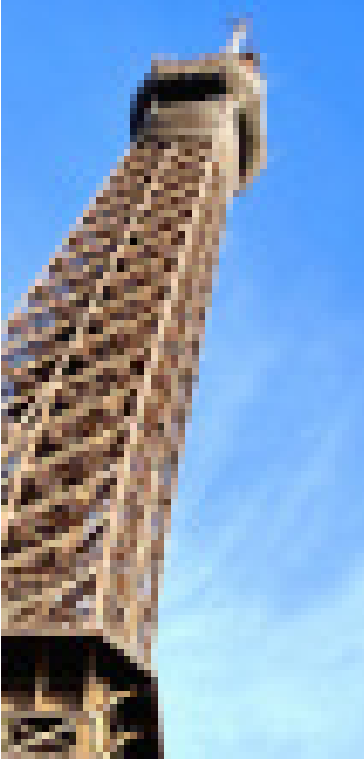
Trigonometric

Prior knowledge of right-angled trigonometry is built on, to now include the sine rule and cosine rule as well as the calculation of a triangle's area using trigonometry. Pupils study trigonometric graphs, in terms of their features such as amplitude, period and phase angle, solve basic trigonometric equations in degrees, and make use of two fundamental trigonometric identities. The practical aspect of using bearings with trigonometry also features at this level.

Statistical

From a statistical perspective, pupils extend their previous use of the three averages (mean, median and mode) to make direct comparisons between data sets. This is complemented by consideration also of the spread of the data, making use of the semi-interquartile range and standard deviation. Acquired algebraic and geometric knowledge surrounding straight lines allows pupils to consider a scattergraph and its associated best-fitting straight line.





Modern Languages

The importance of learning a language stretches far beyond the school classroom. Wellington School is the only school in Ayrshire which offers four languages (French, German, Latin and Spanish).

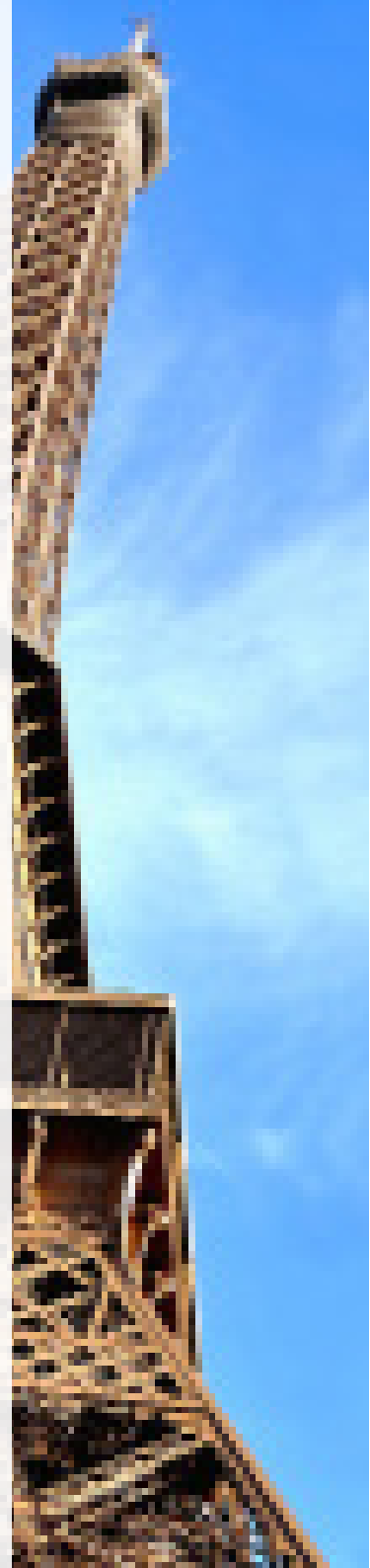
Modern Languages can be combined with almost any degree, making graduates more attractive to employers. Degrees partnered successfully with languages include, but are not limited to, Medicine, Dentistry, Veterinary Medicine, Law, Accountancy, Business, Music, International Relations, Finance, Engineering, Psychology, and Biomedical Sciences. At least two languages are required for unique courses such as the triple language degree at the University of St Andrews or one of the Interpreting and Translating degrees offered by Heriot Watt University.

French

On the world stage, French is a major language of communication, second only to English. Language learning is a transferable skill and learning one language can make it easier to learn others later on. Pupils may also choose to continue their German/Spanish studies. In a world where the workforce is becoming increasingly mobile, many of our pupils can expect to live, work or study abroad in the future.

The course covers four contexts which are subdivided into themes and topics. These are: Society (lifestyles, environment); Learning (school, college, lifelong learning, future plans); Employability (job skills, world of work); Culture (customs and celebrations, holidays, literature, film and television). Studio for National 5 will be the course textbook.

There are also opportunities to go on exchange visits to the Institut Saint-Dominique, Mortefontaine.



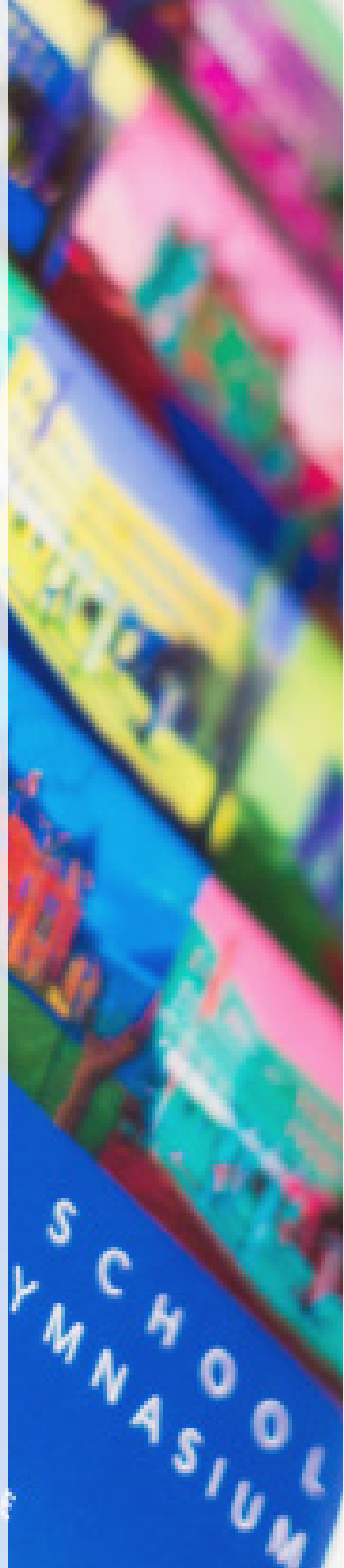
German

German is the most widely spoken language in Europe and has been identified as the language in greatest demand among employers, according to the CBI. In a world where the workforce is becoming increasingly mobile, many of our pupils can expect to live, work or study abroad in the future. Language learning is a transferable skill and learning one language can make it easier to learn others later on. Pupils may also choose to continue their French and Spanish studies.

The course covers four contexts which are subdivided into themes and topics. These are: Society (lifestyles, environment); Learning (school, college, lifelong learning, future plans); Employability (job skills, world of work); Culture (customs and celebrations, holidays, literature, film and television).

Stimmt! for National 5 will be the core textbook.

There are opportunities to go on exchange visits to the Mallinckrodt-Gymnasium, Dortmund.



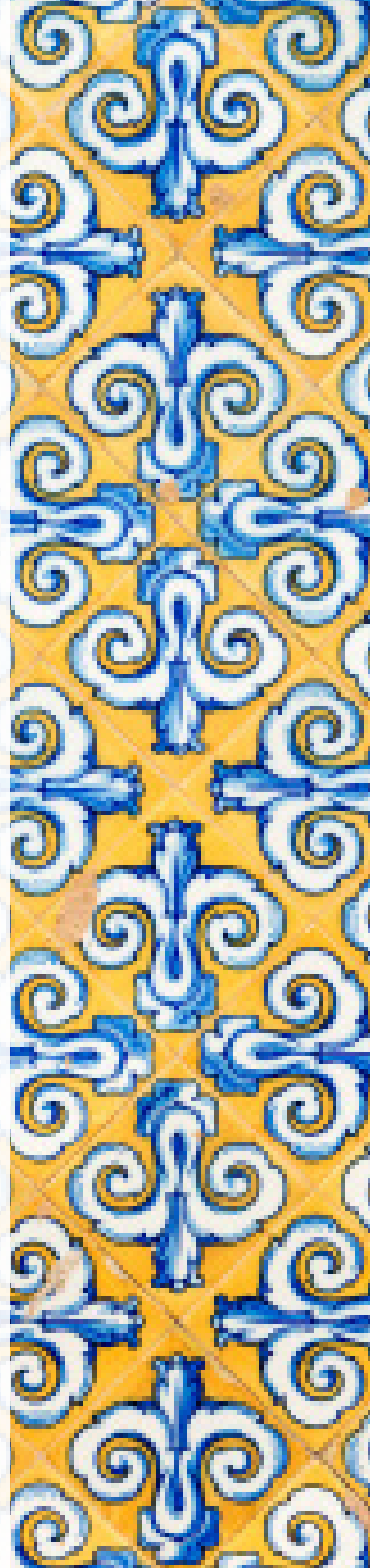
Spanish

Spanish is widely used in Latin America as well as in Spain. Language learning is a transferable skill and learning one language can make it easier to learn others later on. Pupils who take Spanish may also choose to continue their French and German studies.

The course covers four contexts which are subdivided into themes and topics. These are: Society (lifestyles, environment); Learning (school, college, lifelong learning, future plans); Employability (job skills, world of work); Culture (customs and celebrations, holidays, literature, film and television).

¡Viva! will be the core text used for National 5.

There may also be an opportunity to go on an exchange visit to the CCE Virgen de Pasico, Torre Pacheco.





Modern Studies

Modern Studies is the subject where we examine the big issues in an ever-changing world. The units studied will inform pupils about current affairs and give them the ability to understand the world around them - at both a local, national and international level. It will teach them the ability to question and think critically, to construct detailed, persuasive arguments and is truly 'modern' in that pupils will learn about events happening right now, and the content is constantly being updated as a result. The courses on offer are designed to interest pupils and challenge them to think differently about the society they live in and are shaped around key themes of rights, participation, representation and power.

The National 5 course consists of 3 areas of study:

Democracy in the United Kingdom

- Students will study the UK Parliament, power and influence of Pressure Groups and Trade Unions, how people can participate across the country and media involvement in politics. They will also examine in-depth the work of MPs, how they are

elected and whether changes need to be made to 're-engage' voters. They will have the chance to meet their MP and visit the House of Commons in S4.

- Students will develop evaluation skills by answering source based questions. In this unit there will be a focus on detecting and explaining bias and exaggeration.

Social Issues in the United Kingdom: Crime and the Law

Students will study the following areas:

- Types of crime, including youth crime.
- Impact of crime on victims, offenders and communities.
- Social & economic reasons why people commit crime.
- The role of the Police.
- The Criminal Justice System - Courts and Penal System.
- Students will develop evaluation skills through decision making tasks concerning the social issues raised by crime and law in the UK.

International Issues: Brazil

As one of the G20 world powers, students will examine Brazil's role internationally and its

influence over other countries, including the UK.

Students will also look at the people of Brazil, their rights and ways in which they can participate.

There will also be an in-depth study of the political system and on social and economic issues such as income, housing, health, crime and education, and government attempts to address these issues.

Students will develop evaluation skills by answering source based questions. In this unit there will be a focus on drawing and justifying conclusions based on sources about the country's political, social or economic issues.

Assignment

At National 5, all pupils must complete an assignment. This will involve researching a sub-topic from one of the three units and writing an assignment under exam conditions featuring research content and applying evaluation skills.



Music & Music Technology

At Wellington, all music courses are practical in nature and flexible in structure so that you develop confidence in progressing your skills at a rate that suits you.

Opportunities for pupils who study music are ever-increasing, especially as new technology develops. Courses that require an SQA qualification in Music or Music Technology for entry may include Music Performance (Classical, Popular, Musical Theatre), Production Technology & Management, Teaching and Music Technology. Careers may include teaching (music at junior, senior, further and higher level or specialist instrumental teaching), music therapy or sound engineering. Many of our pupils go on to pursue careers as professional musicians.

Summary of Course Content

The course focuses on three



Music

main areas:

- Performing Skills is designed to consolidate and further develop pupils' group/solo instrumental and singing skills. To this end, pupils are given the opportunity to perform in front of their peers and offer constructive feedback during class discussion.
- Understanding Music involves listening to a range of musical styles and identifying features and musical concepts. Pupils will also develop their music notation and literacy skills.
- Composing Skills allows pupils to experiment with and use music concepts in creative ways as they compose original music and self-reflect on their creative choices.

As part of National 5, you will prepare a performance on two instruments that will be assessed by an external examiner in S4. Compositions are also assessed in S4, however, sent to the SQA for external marking.



Music Technology

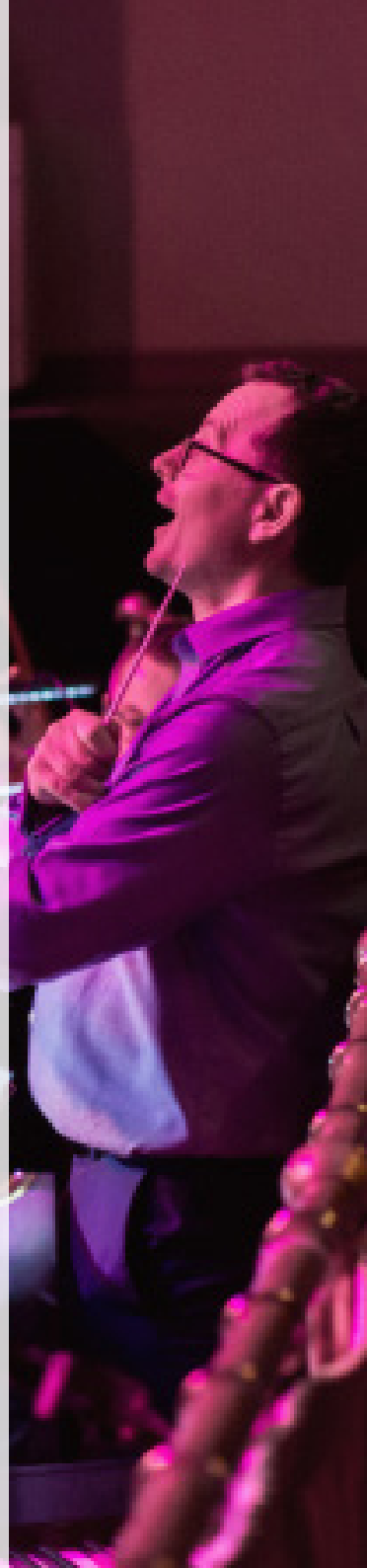
Summary of Course Content

The course focuses on 3 areas:

- Music Technology Skills
- Understanding Music in the 20th and 21st Century
- Music Technology in Context

Practical knowledge and skills of sound engineering are assessed through an assignment, which is marked by an external examiner in S4. The other elements of the course focus on developing skills in understanding musical and technological concepts. Pupils develop a range of techniques to capture and manipulate audio using music technology hardware and software.

Understanding 20th and 21st Century Music involves acquiring a broad understanding of the music industry. Work is done on planning, implementing and evaluating a creative production using technology. Pupils are encouraged to practice in the Studio during lunchtime or after school with our industry standard equipment including Pro-tools and Sounds Active software.



Physical Education



In National 5 PE you will learn about your own performance and how it can be improved. The course has two units: Performance Skills and a Portfolio.

collection is a major part of the process and evidence will be continually assessed throughout the course.

Summary of Course Content

The main group activities covered in the course will be Basketball, Badminton, Football, Gymnastics and Fitness. Pupils may select two different activities that they would like to be assessed in for their one-off performances. The performance comprises two single performances that showcase different activities. Each activity will be internally assessed and will be subject to external verification from SQA.

Pupils will also produce a Portfolio, a collection of evidence showing your learning throughout the course and will include the skills of planning and evaluation. The portfolio will be subject to external marking by SQA.

You will also cover the mental, emotional, social and physical factors of performance. Data



The Sciences



Biology

Biology affects everyone and aims to find solutions to many of the world's problems. It explores the use of genetic modification to produce new plants and drugs, devising fertility treatments, curing genetic diseases, and developing new sources of food. The Course will be of interest and value to students wishing to develop skills, knowledge and understanding of biology.

The Course develops scientific understanding of biological issues and aims to develop learners' interest in and enthusiasm for biology, by using a variety of approaches, with an emphasis on practical activities. Biology plays a crucial role in our everyday existence, and is an increasingly important subject in the modern world. Advances in technologies have made this varied subject more exciting and relevant than ever.

Summary of Course Content

Cell Biology

This area of study examines cell structure, transport across cell membranes, DNA and the production of proteins, proteins, genetic engineering and respiration.

Multicellular Organisms

This unit will study producing new cells, control & communication, reproduction, variation & inheritance, transport systems and absorption of materials in animals and plants.

Biology: Life on Earth

This unit studies ecosystems, distribution of organisms, photosynthesis, energy in ecosystems, food production and the evolution of species.

Chemistry



National 5 Chemistry allows pupils to develop their interest and understanding of the world in an engaging and enjoyable way. They will engage in a wide range of investigative tasks which, while fostering an enjoyment of Chemistry and learning, allow them to develop important skills to become creative, inventive and enterprising, in a world where the skills and knowledge developed in Chemistry are needed across all sectors of society.

Chemistry provides an excellent training for many careers, both scientific and non-scientific. The study of Chemistry promotes the development of transferable skills such as: problem solving, analytical thinking, numeracy, practical skills and co-operation with others. These skills are much sought after in many occupations and fields of employment.

Chemistry courses in S3 & 4 consist of 3 mandatory units. Chemical Changes & Structure
The main topics under study are Rates of Reaction, Atomic Structure, Formulae & Reaction

Quantities, Bonding and Acids.

Nature's Chemistry

The main topics under study are Hydrocarbons, Alcohols, Carboxylic Acids and Energy from Fuels.

Chemistry in Society

The main topics under study are Metals, Plastics, Fertilisers, Nuclear Chemistry and the techniques involved in chemical analysis. Candidates will take tests in each unit to enable progress to be monitored.

Assignment

All pupils will undertake a practical investigation which will assess the application of skills of scientific investigation and research, data handling and report writing. The assignment is worth 20% and is marked by the SQA.

The National 5 Physics course deals with much of the theory and technology that enables the modern world to function. This involves asking questions about the world around us and trying to answer them through observing and experimenting. The study of physics is of benefit, not only to those intending to pursue a career in science, but also to those intending to work in areas such as the health, energy, leisure, finance and computing industries.

The course content includes the following areas of physics:

Dynamics

In this area, the topics covered are: vectors and scalars; velocity-time graphs; acceleration; Newton's laws; energy; projectile motion.

Space

In this area, the topics covered are: space exploration; cosmology.

Electricity

In this area, the topics covered

are: electrical charge carriers; potential difference (voltage); Ohm's law; practical electrical and electronic circuits; electrical power.

Properties of matter

In this area, the topics covered are: specific heat capacity; specific latent heat; gas laws and the kinetic model.

Waves

In this area, the topics covered are: wave parameters and behaviours; electromagnetic spectrum; refraction of light.

Radiation

In this area, the topic covered is nuclear radiation.

Extracurricular & Curricular Opportunities

Art & Design

The Department hosts art exhibitions to reflect the breadth of skills and abilities of pupils and art, meanwhile, pupil work is regularly displayed throughout the school, promoting inclusion at all levels.

Visiting artists and designers are an enriching aspect of creative studies and form part of the department's reoccurring annual activities. These visits have taken place both during class time and externally. Developing pupils' creativity has also been delivered through ERASMUS projects with workshops in graphic design, architecture, textiles, printmaking and photography.

The Art & Design department makes effective use of competitions in order to augment pupil experience. Pupils have participated in a number of competitions including national fashion competition, Junk Kouture, the Royal Scottish Academy Art Award and the John

Byrne Drawing Competition. Wellington pupils have been successful both locally and nationally. For example, in 2019, a pupil won the coveted and prestigious Royal Scottish Academy Art Competition.

The department is open throughout the lunch hour and pupils are encouraged to use the facilities to develop their skills.

Business Enterprise

Business skills are encouraged and teamwork is valued and actively nurtured in Business Education pupils of all levels. They are encouraged to participate fully in a wide range of



challenges and competitions, both in school and in extracurricular activities including S2 Fair Trade Day; Subway Challenge, Fiver Challenge, Lions' Laircontest; Foreign Exchange Programme Enterprise Days.

Trips and visits are organised to local businesses and we arrange for local business owners to come and speak to pupils on business and entrepreneurship. Recent trips have included the Caledonian Paper Mill, Ardagh Glass and Tesco.

Computing

There are a number of activities offered by the Computing Science Department including the weekly Computing Science Club. A highlight for S1 to S3 pupils is chance to take part the annual Beaver Computing Challenge, an international computational thinking competition.

Debating

The Debating Club continues to be very popular. Weekly coaching sessions take place in Room 5 at lunchtimes.

The school participates in a wide range of competitions including the Rotary Public Speaking Competition; English Speaking

Union (ESU) Junior and Mace Debating competitions; the ESU Public Speaking Competition; the Law Society Debate; the Mock Court Case Project. The McKinstry Debate is held every June.

Duke of Edinburgh's Award

Wellington School has been delivering the Duke of Edinburgh's Award or DofE since 1987. The DofE is the world's leading achievement award for young people. It is a balanced programme of activities which develop the mind, body and soul in an environment of social interaction and team working. It encourages young people to live life as an adventure!

There are three progressive levels of DofE programmes which, when successfully completed, lead to a Bronze, Silver or Gold Duke of Edinburgh's Award. There are four areas of the Award: Volunteering, Skills, Physical Recreation and Expeditions. Involvement in the Award requires commitment and initiative, and develops independence and confidence. In S3, you will be encouraged to sign up for Bronze level meanwhile, in S4, you will progress to Silver. Pupils aged 16 or over are offered the possibility of attaining their Gold Award.

Geography

Each June, National 5 pupils undertake a field trip to Loch Lomond to collect data for use in their assessment assignment, focusing on the impact of tourism in the National Park. There is an urban field trip in S4 to supplement the course learning and a biannual residential trip to Iceland for S3/S4 pupils. S3 pupils are also invited to take part in the department's Geography Quiz team as they represent the school in national competitions.

History

In S3, pupils have visited various sites such as Craigmillar Castle, Holyrood Palace and the Mary Queen of Scots Exhibition at the National Museum of Scotland (all in Edinburgh). In S4, pupils attend a joint trip to London to the Museum of Docklands and Westminster Parliament.

Mathematics

Pupils from every year group part in the Scottish Mathematical Challenge, a problem-solving competition for individual pupils in Scottish secondary schools and upper primary schools.

Music

We offer many opportunities for students to develop their musical ability. Opportunities exist within the academic curriculum, performing at one of the frequent concerts or external engagements, one to one instrumental and/or voice lessons and participation in the wide and varied extra-curricular provision offered.

Instrumental and Vocal Tuition

It has been accepted worldwide that learning to play an instrument or studying voice can improve academic performance and also develop social, emotional and cognitive skills. We are proud that Wellington School can attract instrumental instructors of the highest calibre. We currently have 17 specialist tutors teaching a wide variety of instruments. Individual Instrumental Tuition is available for all pupils from Primary and Senior School.



Groups and Ensembles

We encourage all pupils to fully and actively take part in the vast array of extra-curricular groups available in the department. This not only fosters great camaraderie but also encourages pupils to work as part of a team. They would also be key contributors to promoting the ethos of the school through their music.

International Trips

The music department regularly provides International platforms for pupils to experience and develop as musicians. Successful trips in the past have included New York, Dortmund and Salzburg. There are future plans for a concert tour of Tuscany in 2020 with the Choir and Orchestra.

Modern Languages

Pupils have a wide range of opportunities to use their language skills at home and abroad. We offer classic exchanges, theme-based exchanges, trips, conferences and international projects. The Modern Languages Department works closely with other departments in the school on developing cross-curricular activities, and through these, pupils can gain



evidence of core skills, which universities and employers are looking for, including enhanced communication skills, working with others, flexibility, an international outlook and sensitivity towards other cultures and speakers of other languages. Pupils have the opportunity to work on European-funded Erasmus+ projects and to attend UCAPE conferences where they meet young people from across Europe.

Wellington School has European Commission funding to lead Erasmus+ projects, working with partner schools in eight European countries.

Physical Education

Dance

The Dance club is extremely popular. Each year, there is a Dance Showcase where pupils choreograph and perform their own pieces

Hockey

The school fields teams from P6 to S6. There are practices held throughout the week and matches against other school on Saturday mornings.

Rugby

The Ayr Wellington side is the product of a successful partnership between Wellington School and Ayr Rugby Football Club. Ayr Wellington players have greatly benefitted from the amalgamation of facilities and expertise that both institutions have to offer. Player development is a key focus and includes work on tactics, strength and conditioning, and nutrition.

In 2016, the Ayr Wellington U18 and U16 teams both competed in the National Youth League Cup Finals at Murrayfield, and the U16 side emerged as National Youth Champions.

Sports Tours

National and international tours (visiting countries such as Holland, Spain, France and Italy) take place throughout the year.

Science

Two Science Captains are elected each academic year from the S6 class. As part of their remits, the

Captains assist younger pupils in class and un a supported study group for S3 to S5 pupils.

Science has strong links with Modern Languages and has been involved with many Comenius, UCAPE and Erasmus projects over the years.

Writing

Pupils have been fortunate to receive visits from authors including Allan Bissett, Catherine MacPhail and Lisa Ballantyne to talk about their writing or run writing workshops.

The English Department has recently launched a new Creative Writing Club, run every second Friday lunchtime by Mr Smith.

