

# Alford Academy

*An Ambitious School Community  
Enterprising, Engaging, Evolving  
Working Together, Towards Excellence*



*S2 into S3 Subject Choice Booklet*



*March 2019*

# S2 into S3 Subject Choice

This booklet is available to you from March 2019, to assist you in the completion of the 'S2 into S3 Subject Choice' consultation process.

It has been updated in early March 2019, to provide you with the information you require to assist with completion of the final S2 into S3 Subject Choice forms, in preparation for session 2019-20.

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# SECTION 1

## 1. INTRODUCTION

Dear Parents/Carers and Pupils

This 'S2 into S3' Subject Choice Booklet is designed to help pupils make decisions about subject choices for study over the coming year, for session 2019-2020. In doing so, you must also consider progression from the Junior Phase (S1 – S3) into the Senior Phase (S4 – S6) and beyond.

Throughout S1 and S2, pupils have been gaining and applying skills and knowledge across a broad range of subjects from within the 8 main curriculum areas:

Mathematics and Numeracy  
English, Modern Languages and Literacy  
Sciences  
Social Studies  
Technologies  
Expressive Arts  
Health & Wellbeing  
RME

These curriculum areas form the basis of a broad general education in the Junior Phase (S1 to S3).

Curriculum for Excellence (CfE) states that as learners progress in S1-S3 they will:

- Experience a broad general education
- Make and confirm links across all aspects of their learning including across curriculum areas and subjects, as well as personal achievements
- Be secure in their learning through to third level
- Be offered opportunities for specialisation and choice, while ensuring that they have the opportunity to cover experiences and outcomes in all eight curriculum areas, using a variety of approaches including interdisciplinary learning
- Be given opportunities to experience breadth and depth of learning and to apply skills in new and unfamiliar contexts
- Begin to consider whether, and to what extent, they will carry forward their interests in particular subjects into qualifications – and at what levels
- Have their achievements recognised through an S3 profile

Our staff believe that almost all pupils in Alford Academy will be secure in their learning through to third level by the end of S2. For this reason, we have decided to offer some subject choice in S3. This will allow pupils to continue with particular subjects from within these curriculum areas.

In line with National guidelines, the school recommends that pupils and parents keep choices broad. However, we also recognise through our mission statement that...

***...one size does not fit all.***  
***Our young people are born individuals and should leave school as individuals.***  
***Alford Academy is committed to unlocking each youngster's potential, raising their aspirations and helping them be all they can be, in a safe, healthy and caring environment.***

With this in mind, we have consulted with pupils and parents as well as with staff to 'get it right' for our pupils and feedback from the consultation has helped shape our curriculum. The S2 into S3 Subject Choice form reflects the priorities communicated to us through this extensive consultation process. We trust that our pupils are able to look forward to S3 and beyond knowing that they have begun to look at where they would like to be in terms of attainment and achievement by the time they are ready to move on to life beyond school, whether this is planned for at the end of S4, S5 or S6.

We will continue to work in partnership with pupils, staff, parents and education, business and community partners to help pupils to build a clear pathway through learning – one that is right for them.

### **Subjects in S3**

In S3 all pupils will continue to study the core subjects Physical Education (PE), Personal & Social Education (PSE) and Religious & Moral Education (RME).

In addition, pupils will continue to study Mathematics, English and a Modern Language. A further 7 subjects will be chosen by each pupil for study in S3. These seven subjects must include at least one science, one social subject, one technological subject and one expressive arts subject, with the final choices coming from subjects offered across a range of curriculum areas.

The path has therefore been prepared for a smooth transition into S4. Subjects available for study will be familiar and offer direct progression from their learning in S2, through S3 and into S4 and beyond.

Subject choices should be considered carefully. This Subject Choice Booklet describes the subjects on offer and gives some advice about factors to consider when making subject choices. At Alford Academy we recognise how important this time is in your son/daughter's school career and we provide subject choice support through:

- assessments and reports from subject staff which are based on a pupil's academic progress in S1 and S2
- the explanatory S3 Subject Choice meeting for S2 parents/carers on 04 March 2019. As well as providing valuable information this evening will also include a workshop entitled 'My World of Work, led by Skills Development Scotland.
- the programme of work currently being followed by pupils in their weekly Personal and Social Education class which provides them with more details about what is on offer and how to go about making their choices.

- contact with the school's Careers Advisers, who are also involved in the Personal and Social Education Programme mentioned above.
- the pupils' contact with, and the support of, their Guidance Teacher who will see all S2 pupils individually to discuss and monitor course choices, in order to ensure that they follow an appropriate curriculum in S3 to support further choices for study in the Senior Phase (S4-S6).

As a result we hope that you and your son/daughter will be able to make these decisions feeling confident that you have as much information and help as you require. As always, parents/carers should contact their son/daughter's Guidance Teacher at Alford Academy for any additional support required.

Yours sincerely

A handwritten signature in cursive script that reads "Moira Milne".

Moira Milne

**Head Teacher**

## 2. INDIVIDUALISED CURRICULUM

It is important that individual needs of all our pupils are met and for some pupils an individualised curriculum may be more appropriate. For example, pupils may be advised that certain subjects may be overly demanding due to extensive extended writing. For other pupils it may not be in the pupil's best interests to follow a full diet of eight subjects in S3. In such cases we may advise certain subjects or subject combinations.

The parents of pupils whom the school feels could benefit from an individualised curriculum, will be fully consulted on an individual basis to discuss the possible options.

## 3. SUBJECT CHOICE CALENDAR

DATE	ACTIVITY
Ongoing	Curriculum discussions in PSE
Mon 11 March 2019	S2 Course Choice Presentation
Wed 6 March 2019	S2 Course Choice forms issued to pupils
Mon 11 March 2019	S2 Parent Evening
<b>Fri 15 March 2019</b>	<b>Latest date for S2 into S3 Subject Choice form return</b>
Mar/Apr 2019	Subject Choice meetings (with parent/carer, pupil, PTG and DHT Curriculum) where requested / required
May 2019	Subject Choices confirmed and class lists finalised.
Tues 4 June 2019	Change of timetable

## 4. DO's and DON'Ts of SUBJECT CHOICE

### DOs

- Read this subject choice booklet. It contains lots of useful information to help you make sound choices.
- Study your S2 report and identify the subjects you do best in. Teacher comments can guide you – read them carefully. Subject teachers can advise you on subject content. Your Guidance teacher, who knows you well, will be able to give best advice on subject choice. Be sure to discuss your choices with her/him.
- Choose subjects you work hard at and push yourself to do best in. Be honest about how well you work and the progress you are making.
- Choose a subject because you find it to be challenging and enjoyable.
- Consider likely career options. Research these and find out which subjects are most relevant for each.
- Keep choices as broad as possible.

### DON'Ts

- Choose subjects based on what your friends are choosing. There is no guarantee you will end up in the same classes as them.
- Choose a subject just because you like the teacher – there is no guarantee you will have the same teacher next year.
- Avoid a subject because you don't like the teacher.
- Choose subjects based on how easy they are or how little homework there is. All subjects will become more challenging as you progress through school.
- Avoid subjects because they are demanding. Success is only achieved by working hard and doing your best.

## 5. PROGRESSION and CONTINUITY in LEARNING

One consideration when making choices for S3 is course pathways for progression through increased levels of certification in subsequent years. In making subject choices for S3, you are advised to be aware that whilst most subjects are available at all levels, some are not. It is wise to plan for progression from S3 subjects into certification in the Senior Phase (S4 – S6).

Please note that:

- 'Food Technologies' in S3 leads in later years to certification at National 4 and/or National 5 Hospitality but not at Higher.

For all subjects:

- Plan for continuity of learning as far as possible. Under current curriculum plans, this means that, of the 10 subjects you choose to study in S3, you should plan to continue with 6 of these into S4 and 5 or 6 of them into S5. This should allow for maximum attainment and a better sense of achievement.
- We aim to work closely with you and your parents/carers to ensure that the subject choices you make are right for you. Your Principal Teacher of Guidance (PTG) and Mrs Lees, Depute Head Teacher will examine your choices and will arrange to discuss these with you if we feel your choices are insufficiently broad or inappropriate to your individual needs. If you wish to follow a more specialised curriculum than that advised, you should have sound rationale for doing so, based on strengths, likely career aspirations etc.
- If at any stage you feel you need to revisit a choice of subject you are advised to discuss this with your PTG and/or Mr Cookson as soon as possible to minimise the impact of a change of subject.

## 6. CAREER RESOURCES IN THE LIBRARY

The library has a range of resources for parents and pupils to access through our school network computers. We have a range of books giving details of many jobs that can be borrowed. There are also other resources such as:

- Careers in Scotland
- Job seeking Skills
- Apprenticeship Guides
- CVs and Interview materials ... and many more to help you plan career pathways.
- Each university and College publishes a prospectus which will be available online. These give lists of courses for study, as well as general information about the University or College and the town or city in which it is situated.
- Signposts: a box of cards, each outlining the main aspects of the job. These are a good starting point and the information usually includes useful websites, addresses and telephone numbers for you to contact.

If you need assistance using the Careers Section in the library, please ask the Library staff who will be happy to help you.

**In addition, one of the best resources to inform subject choice and career planning is the My World of Work website.**

## SECTION 2

Over the next few pages you will find information on each of the subject options available to you, as well as the core subjects that all pupils will study. The various subject options are arranged in alphabetical order within the eight broad curriculum areas.

**1. CORE SUBJECTS** These subjects are mandatory, in line with our National curriculum.

Curriculum Area	Core Subjects	Page
Numeracy and Mathematics:	Mathematics	11
Literacy and Languages:	English	11
	Modern Languages: French or Spanish	12
Health & Wellbeing:	PSE	12
	Physical Education	13
Religious & Moral Education:	RMPS	13
MEL (Mentoring for Effective Learning)		14
		14
Wider Achievement		

**2. SUBJECT OPTIONS** These options allow our S3 pupils a degree of subject choice. Pupils can opt to continue with the subjects they feel are most relevant to them as individuals and to study these in more depth in order to prepare for qualifications in the senior phase.

Curriculum Areas	Subject Options	Page
Expressive Arts:	Drama and Music	15
	Art & Design	16
Health & Wellbeing:	Physical Education (PE)	16-17
	Food and Health (Hospitality)	17
Literacy & Languages	2 <sup>nd</sup> Modern Language	17-18
Religious & Moral Education:	RMPS	18
Sciences:	Biology	19
	Chemistry	
	Physics	19-20
Social Studies:	Geography	20
	History	20-21
	Modern Studies	
Technologies:	Administration & IT	21
	Business	21-22
	Computing Science	23
	Craft, Design & Technology	23
	Graphic Communication	23-24
	Engineering Science	25-26
		26

**1. CORE SUBJECTS** These subjects are mandatory, in line with our National curriculum.

## **Mathematics**

The course is designed to allow for natural progression from the course followed in S2 to certification in S4 and beyond.

There will be a clear focus on the development of knowledge and skills in many areas, including:

- Numeracy
- Money
- Shape
- Measurement
- Algebra
- Trigonometry and
- Statistics

The course aims to enable pupils to develop the mathematical skills and understanding required for their present needs, and for the future demands of adult life, employment, further study and training.

In addition, the aim is to develop an appreciation and enjoyment of mathematics and an awareness of its importance in society, its historical significance and its role in the development of technology. During S3 pupils undertake a mini-project researching into either the life of a famous mathematician or mathematical topic.

## **English**

In S3 the English Course will provide a broad preparation for National 4 & 5 and provide learners with the opportunity to develop the skills of listening, talking, reading and writing in order to understand and use language. These skills are essential for learning, life and work and the course will offer opportunities to develop the ability to communicate thoughts and feeling, respond to others and use different media effectively for learning and communication.

The course also provides learners with the opportunity to develop an understanding of how language works, and use language to communicate ideas and information. Pupils will also develop skills in creative and critical thinking to help them formulate ideas and arguments as well as personal, interpersonal and team working skills. Additionally, there will be an opportunity to enhance their enjoyment and their understanding of their own and other cultures through a thematic course structure and associated texts.

## **Core Modern Language Experience in French or Spanish**

In S2 we focussed on developing a good working knowledge of the practical 'coping' language pupils will need, in order to successfully manage a variety of common, everyday situations. As pupils progress into S3 they will continue to develop their skills in talking, listening, reading, writing and also knowledge about language, but within the context of more interesting, challenging topics drawn from the broad themes of Society and Culture.

Unit 1 is a transition unit, in which pupils develop the skills to understand and communicate more extended information and sustain conversations about aspects of family life. Thereafter, depending upon the language being studied, pupils will encounter some new and very different themes, such as young citizens of a global community – looking at issues affecting young people today, and studying the lives of some young people in countries of the developing world, where the language being studied is spoken.

Throughout the S3 course, pupils are building on their knowledge of language in general, learning how to use different tense systems, and how to understand, analyse and produce more complex, detailed language. Through the study of another language, pupils gain an increased awareness of the interconnected nature of languages, and an improved understanding of their own native language. Thus, the study of a second language plays an important part in the development of general literacy and communication skills. It also provides pupils with the language tools they will need, should they choose to take up the study of a different language, either in the Senior Phase or in later life, whether in connection with work, travel or cultural interest. In the course of their studies in S3, pupils may also achieve the SQA's Language for Life & Work Award (at SCQF Levels 3 or 4).

## **Core PSE**

The learning and teaching focus in Personal and Social Education (PSE) is on qualities, skills, knowledge and understanding needed for pupils to:

- function effectively as individuals and learners
- form considerate and supportive relationships
- interact effectively with the natural and social environment
- make the transition to adult and working life
- operate effectively within society

PSE helps pupils to get the most out of school and allows them to develop skills useful throughout life.

Topics covered include:

- relationships
- drug awareness
- study skills
- preparation for work, including work experience
- career pathways

## **Core Physical Education (PE)**

This course enables all learners to enjoy and succeed in a range of physical activities.

Learners have the opportunity, through analysing performance, understanding what is required to improve and then applying this to enhance their own effectiveness in performance, to develop, demonstrate and improve practical and performance skills in physical activities.

Learners will experience a range of roles and responsibilities during Physical Education and this allows them to develop interpersonal skills and contributes to their social and emotional development.

The Course also provides an opportunity to support the way that individual attitudes, values and behaviours are formed. By actively participating in physical activities, learners can demonstrate initiative, decision making and problem solving.

Pupils will cover some of the level 4 experiences and outcomes by participating in a range of activities from the following categories: Team Games, Individual, Health & Fitness, Aquatic, Winter sports and Creative & Aesthetic.

## **Core RMPS**

The aim of Core RMPS is to educate pupils about the society in which we live, as well as allowing them the opportunity to consider their own beliefs. Analysis and evaluation skills will be further developed in order to help pupils not only have an opinion, but know why they hold that opinion. We will also investigate the opinions of others (philosophical, faith-based, secular) and examine whether or not they have any merit. Units from the following list will build on knowledge gained, and skills developed in S1 & S2.

Life After Death – an investigation of different beliefs about life after death. Is there life after death? What evidence do we have from our ancient ancestors? We learn about reincarnation, out of body experiences, ideas of heaven and hell and recent scientific discovery. We look at answers from religious, secular, scientific and philosophical standpoints.

Crime & Punishment – a look at the aims of punishment and different viewpoints on the issue from ancient times to the present day. We also investigate the death penalty. Viewpoints include religious, secular and philosophical.

Happiness – a look at different responses to happiness. What is happiness? How important is it? Does it even exist?

Issues of Belief – this unit looks at the relationship between beliefs, actions and consequences. What different types of beliefs are there? What do these beliefs lead people to do? How do my own personal beliefs affect my actions? What can I do to make a difference? Why should I even try?

Bob Marley – the life and beliefs of Rastas are examined and evaluated. What DO they actually believe? Why? How did Bob Marley's beliefs affect his life? What difference did he try to make and why?

Studying RMPS at Core level should enrich pupils and help them to develop their own informed response to the variety of beliefs, values and attitudes that they will find in society, as well as further improving analysis and evaluation skills. They should find it gives them an all round education which better equips them to enter the world of work.

## **Skills Development Academy**

In addition to these core subjects, pupils will be given opportunities to take part in Skills Development Academy. During this period pupils will participate in the Personal Development award SCQF 3-6, developing a range of transferrable skills such as interpersonal, problem solving, employability and learning skills.

Skills Development Academy will take place during one 50 minute period per week. During this time a member of teaching staff (a key adult) will work closely with each group of pupils (previously registration classes) to get to know them as learners and to help the youngsters become more self-aware in terms of their own learning and potential. One focus will be around building the four capacities: To be

- successful learners
- effective contributors
- confident individuals and
- responsible citizens.

House and year group assemblies may take place at this time, supported by our Chaplaincy team. In addition, pupils of varying age groups will have opportunities to work together to reach common goals.

## **Wider Achievement (WA)**

Wider Achievement is also a feature of our curriculum in S1- S6. We are continually building on our Wider Achievement programme and this year we will introduce our Junior Phase programme.

The activities included in Wider Achievement are carefully selected and developed to ensure a range of skills – subject specific, personal and interpersonal, transferrable and life enhancing – are built upon year on year, helping youngsters to meet the challenges that lie ahead as they progress from Junior to Senior phase and beyond.

## 2. SUBJECT OPTIONS

### EXPRESSIVE ARTS

#### Performing Arts

##### S3 courses

**Drama:** Courses progress from the S1/2 experience, allowing pupils to develop in both drama skills and production skills.

Pupils continue to develop an understanding of the social and cultural influences on contemporary theatre. Theatre trips are organised to support pupils understanding and appreciation of texts.

Pupils are encouraged to contribute their ideas to group discussion, rehearsing and performance. Focus is placed on increasing voice and movement techniques to create and sustain characters that are stylised and realistic. A range of dramatic forms are explored through rehearsal and performance. In addition, pupils develop skills in evaluating their own and others' work.

Opportunity is given to pupils to design and implement a range of production skills to enhance the mood and atmosphere in their dramas. Pupils are given choice as to which production areas they would like to explore. Potential career paths are discussed.

Progress is recorded through progress sheets, next steps discussed and targets are set to improve attainment

**Music with Technology:** Courses progress the S1/2 experience, allowing for instrumental training on both instruments and concept exploration.

Pupils continue to develop their skills on two musical instruments and whilst there may be opportunities to play in groups, the focus of developing performing skills in all years remains within the context of solo playing. Pupils are encouraged to develop their performance skills at their own pace, recording progress and setting targets on a weekly basis. Pupils showcase their best work by performing on both instruments in a class concert at the end of each term.

Pupils develop their skills in musical literacy, composition and listening by producing pieces of work using music technology.

The instrumental service, works in close collaboration with the Performing Arts Faculty, allowing for age and stage development whilst preserving the faculty ethos of offering a creative environment for all of our students to develop their creative potential.

'The inspiration and power of the arts play a vital role in enabling our children and young people to enhance their creative talent and develop their artistic skills.'

### **S3 Art and Design**

The course provides opportunities for learners to be inspired and challenged by exploring how they can visually represent their personal thoughts and ideas. Learners will develop their appreciation of art and design work and create original expressive and design ideas. Learners will explore how they can use art and design media, equipment and materials creatively and expressively. They will develop their problem-solving skills and will be encouraged to explore the creative use of technologies when developing and producing art and design work.

As learners develop their practical skills, they will investigate how artists and designers create and develop their ideas. Developing their appreciation of art and design practice helps learners to develop their critical thinking skills. Reflective skills are also developed through the study of art and design practice. This will help learners when developing and refining their creative ideas.

The aims of the course are to enable learners to:

- explore personal thoughts, feelings and ideas using art and design media, materials, techniques and/or technologies
- develop knowledge, understanding and appreciation of art and design practice
- work imaginatively and develop individual creativity developing skills in problem solving, critical thinking and reflective practice
- learn about the social and cultural influences on artists and designers and their work

Due to the practical nature of this course there will be a charge for the materials used. Art and Design offers the keen student an opportunity to develop creativity and nurture personal expression. These demands require dedication to building skills and that requires practice; both in and out of school. Genuine enthusiasm is key, rather than relying on natural talent alone.

***Due to the practical nature of this course there will be a charge for the materials used.***

### **HEALTH & WELLBEING / EXPRESSIVE ARTS**

#### **Physical Education (PE)**

Learners who complete this course will be able to

- Develop and demonstrate knowledge of the principles and factors underpinning and impacting on performance
- Describe factors which impact positively and negatively on engagement and performance in physical activities
- Build capacity to enhance effective performance
- Reflect on, and monitor performance to inform and influence personal improvement

Activities include Football, Swimming, Gymnastics, Basketball, Badminton and Skiing and there are two units within the course:

Performance skills

Factors impacting on performance

Pupils must take part in and come prepared with the appropriate kit for all of the activities highlighted above i.e.

- football boots and shin guards for football and hockey
- goggles for swimming
- padded gloves for Skiing etc.

## **HEALTH & WELLBEING / TECHNOLOGIES**

### **Food, Health and Hospitality**

The Scottish catering and hospitality industries are large, vibrant and growing, collectively employing a significant proportion of the nation's workforce.

In S3, pupils continue to develop knowledge and understanding in Food and Health. They also develop practical cookery skills appropriate to the hospitality industry. Pupils will focus on a wide range of food skills and processes.

Learners will:

- gain a range of basic cookery skills, food preparation techniques and cookery processes
- develop understanding of ingredients and their uses
- develop an awareness of the impact of the choice of ingredients on health and wellbeing
- follow simple recipes to produce simple dishes
- develop an increasing understanding of the importance of food safety and hygiene

This is a practical subject which involves experiential learning, and is supported by related theory. It uses real-life hospitality contexts, which makes it relevant to the world of work. Its uniqueness lies in introducing learners to practical cookery in hospitality-related contexts.

***Due to the practical content there is a charge for the ingredients used in the course.***

## **LITERACY (MODERN LANGUAGES)**

### **S3 Modern Languages: Experience of a Second Modern Language**

**(French, Spanish or German, depending on pupil interest and course viability)**

In addition to pupils continuing to develop their skills in the language studied in S1 and S2, the Modern Languages Faculty is keen to offer pupils the opportunity to gain experience and a basic working knowledge in a second modern foreign language.

This introductory course is available in French, Spanish or German, subject to pupils' interest, staff availability and sufficient uptake.

Since pupils in S2 currently study French or Spanish, this introductory course is being offered in German, subject to sufficient uptake.

This course is intended to be an introduction to a second modern foreign language and as such, no prior knowledge of the language is needed. However, this option may also allow some pupils to revisit and take up a language which they encountered as part of their language learning in primary school.

Pupils will discover for themselves that the experience of learning one foreign language has left them well-equipped to acquire other new languages, and to appreciate that all

language is connected. The study of other languages will also help pupils to appreciate, understand and improve how they use their own native language.

As well as gaining a flavour of another language and its culture, pupils will further develop the transferable skills of language learning and appreciate how all language is connected.

Participation in this course means that pupils will be able to make well-informed choices about which languages(s) they may wish to study in the Senior Phase (S4-S6), based on their own personal experience of two different languages in S1-S3. This experience also means that they will be in a strong position to progress qualifications in either (or both) language(s).

## **RME**

### **RMPS**

RMPS as a subject option will build on experiences and outcomes gained in S1&S2, as well as introducing pupils to a more in depth study of philosophy, morality and religion. We will investigate one moral issue and start to learn more about one of the World Religions.

'Beliefs, Values & Issues' looks at our values and beliefs and how they link to moral issues. What is morality? What makes things right or wrong? What are "values"? Where do they come from? How does all this connect to our beliefs? Pupils are given the opportunity to investigate someone of their choice and explain how their morals, values and beliefs can be seen in their life. Then we move onto looking at how different groups of people make up their minds about moral issues. We apply this knowledge to issues such as abortion, drugs, euthanasia, animal testing, forced marriage, homosexuality, honour killings etc. What different opinions do people hold about these issues? Why do they hold them? Finally, pupils pick a moral issue to do a project on. They find out facts about the issue, and use their knowledge of moral and philosophical stances to investigate different viewpoints.

'How to Argue' is a short unit on how to be a good critical thinker. It will prepare pupils for the philosophy unit "Does God Exist", which is part of the Nat 4/5 curriculum.

This course allows pupils not only to learn about the society in which we live, but also to further develop analysis and evaluation skills. They will gain the ability to think for themselves and be able to justify their opinions with well-thought out arguments.

## SCIENCES

### S3 Biology

Studying Biology in S3 provides pupils with a wide diversity of experiences based on the CfE level 4 outcomes. These provide progression for continued studies at National 4 or National 5 in S4.

The Introductory unit that you will study are cell processes, looking at cell structure and function. This is followed by the properties and uses of enzymes, factors that limit photosynthesis and anaerobic & aerobic respiration. While studying these areas you will also look at therapeutic applications (looking at possible illness cures), as well as how we can use micro-organisms to provide us with useful products.

Systems of the human body are also studied including a basic introduction to inheritance gaining an understanding of DNA, genes, chromosomes and how genetic information is passed from generation to generation.

Life on Earth will give you the opportunity to use biological techniques to look at the distribution of populations and communities within ecosystems, study the features of ecosystems and learn how an organism's behaviour and adaptations help them to survive in different ecosystems, as well as the impact humans can have on these.

Studying biology will not only give you a sound knowledge of biological processes and life on earth, but you will use this knowledge to develop skills to investigate, through experimentation, as well as use your skills to explore moral/ethical implications related to therapeutic applications.

### Chemistry

Chemistry is an essential part of our lives. It is concerned with the food we eat, the fuel we burn and the clothes we wear. Many people find that their understanding and interest in science is enriched by a study of Chemistry which also provides an essential foundation to understanding concepts in other Science subjects – many topics (e.g. electrochemistry and carbohydrates) overlap with Physics and Biology.

This Chemistry course takes a hands-on practical approach and will give you a fascinating insight into the thousands of applications of Chemistry in our lives. In addition, we will cover the basic topics necessary to progress to qualifications in S4.

**Atomic Structure and Bonding:** The course will start with the most basic concepts of atomic structure, and how these atoms join together to make different substances. This leads on to understanding and explaining the properties of these different substances.

There will be some calculations at the end of this topic.

**Fuels and Hydrocarbons:** In this topic, you will study the basics of Nature's chemistry which is based on the element carbon. You will learn about the structure and reactions of hydrocarbons and everyday products obtained from them.

**Metals:** Here, you will learn about the extraction, reactions and alloys of metals and learn about the properties and uses of metals in our everyday lives.

Throughout the course, you will develop other important skills such as practical, investigative and study skills and it allows smooth progression into our National 4 or National 5 course offered in S4.

## **Physics**

Physics is fun, challenging and is the science that ties everything scientific together. It helps us to explain how the world behaves around us, how the laws of nature operate and to understand how things work. The great thing about Physics is that it is constantly unveiling new facts about our universe - from the very small, like sub-atomic particles, to the very large, like black holes and galaxies.

The course will also give you the opportunity to develop the following skills:

- Integration and application of physics knowledge and understanding
- Application of scientific enquiry and analytical thinking skills
- The ability to explain the impact of applications to society and the environment.

In addition, the course offers many opportunities for hands-on practical work and will include the topics outlined below:

**Introduction to waves:** You will begin by learning about the properties of waves, diffraction, refraction, critical angle, optical fibres and the electromagnetic spectrum. You will also do some wave calculations,

**Radioactivity:** This topic looks at atomic structure, the different types of radiation, background radiation, absorption, half-life and radiological protection and safety.

**Motion and application:** Here, you will study how things move, including distance and displacement, speed and velocity, acceleration, forces and their effects.

**Electricity and Electronics:** A look at current, voltage and resistance. You will also study electromagnetism electricity generators and electric motors.

The S3 Physics course is designed to allow a smooth progression into National qualifications in S4, either National 4 or National 5.

## **SOCIAL SUBJECTS**

### **Geography**

In S3 pupils will study topics and complete tasks which correspond to the learning outcomes and experiences outlined in CfE. Learners in Geography will develop an understanding of people, places and environments across the world. There will be an opportunity to develop transferable skills such as mapping, sustainability, citizenship and environmental awareness. Pupils will also learn how to apply literacy, numeracy and graphical skills. Active learning is encouraged. There will be a focus on research skills, including gathering, processing, interpreting and presenting information in preparation for Added Value assignments in S4-6.

The S3 course includes an introduction to mapping and tracking skills (Ordnance Survey mapping, Geographic Information Systems and Global Positioning Systems). Pupils carry out basic fieldwork techniques and put their newly acquired skills to the test around Alford! Pupils study the Aberdeenshire landscape from the mountains to the sea by following the course of the River Don. They study the physical features of the local landscape and how people make use of these different landscapes. In addition, they study local, national and global tourism and learn about weather and climate. Pupils will also compare how we live in Scotland (developed country) with a poorer (developing) country.

The focus for all topics will be on personalisation and choice, culminating in a key task. Homework is set regularly, with plenty of time for completion and includes knowledge and understanding plus skills exercises as well as preparation for the key tasks. Geographical skills are very much sought after and valued by many employers. If you are interested in the future of the planet, the area you live in, working with people, maps or software, or are fascinated by the natural environment, new places, the economy or global issues, then Geography is for you!

## **History**

In S3 pupils will be given the opportunity to study a number of interesting topics that seek to enable learners to develop important transferrable skills that will aid them for the rest of their lives – investigation, evaluation and presentation.

The first unit is an introduction to History under the umbrella of “Mysteries” with a particular focus on events surrounding the Mary Celeste. Here we focus on the use of sources and how information can be interpreted. The use of IT is encouraged as a means of developing how source information can be accessed in a more structured manner.

The second unit focuses on the concept of Revolutions and how they can bring about change in different ways. To enable pupils to learn how the “wheels of change” turn we consider the French Revolution, the American War of Independence and the Industrial Revolution. As well as learning about the human and economic cost of Revolution we will continue to develop the core life skills highlighted in the introduction.

In the third unit we will be learning about the First World War. We will consider Causation, the impact of New Technology and investigate Life on the Western Front. As well as learning about the human cost of conflict Pupils will continue to develop specific Enquiry Skills that will be advantageous in their future studies.

Finally we will do a pupil led project looking at an area of the History course that they found to be of interest to them. This will enable pupils to showcase the skills they have learnt by producing this final piece of work.

Homework will feature throughout the course in order to give pupils a measure of their learning and how this is progressing.

Throughout the year, while learning about history pupils will gain invaluable skills including the ability to develop an argument on paper, analyse information, detect bias and exaggeration and gain confidence in debating and discussing important issues.

## **Modern Studies**

Modern Studies draws on the social sciences of politics and sociology and pupils will gradually build up a framework of social and political knowledge. The Modern Studies Course will encourage learners to develop important attitudes, including an open mind and respect for the values, beliefs and cultures of others: openness to new thinking and ideas, and a sense of responsibility and global citizenship.

## **Unit 1 – USA**

A study of the USA today looking at:

- The political system and ideology
- Immigration
- Inequality
- Gun Control

## **Unit 2 – Who’s in charge?**

A study of the UK and decision making looking at:

- UK political system
- Devolution and Devolved/Reserved powers
- Influence of the Media
- Pressure groups and their influence

## **Unit 3 – Interdependent World**

A study comparing the developed and developing world looking at:

- Poverty – causes & impacts
- Case study comparison of Rwanda & UK
- Aid and the UN
- Arguments For & Against giving AID
- Ebola & Impact

### **Research project**

Pupils will be given the opportunity to carry out a research project on a subject of their choice from Modern Studies. Each pupil will be able to decide how to present their research e.g. make a short documentary, PowerPoint presentation, speech, written report etc.

Pupils will have the opportunity to use a variety of research methods and will be encouraged to; carry out interviews, send emails, visit locations, use the library, watch documentaries, as well as using the variety of resources available on the internet, in order to complete their project.

## **TECHNOLOGIES**

### **Administration and IT**

Administration is a growing sector which cuts across the entire economy and offers wide-ranging employment opportunities. The key purpose of the course is to develop learners' administrative and IT skills and will include: key legislation affecting employees, good customer care, IT skills and organisational skills in the context of organising a small-scale event.

You will build on your experiences in the S2 Enterprise and Enabling Technologies course and the Course will contain a lot of practical work which uses real-life contexts and is relevant to the world of work. The Course will also help your general education as it will develop essential skills which will stand you in good stead for a large number of careers. It will also help your vocational education as it will open up progression to a range of careers in Administration and IT. The Course also supports the wider curriculum through its emphasis on IT.

You will be able to use the following software: word processing, spreadsheets, databases and desktop publishing, internet and email. You will also develop the ability to organise, process and communicate information and be able to organise and support small-scale events such as meetings or fund-raising events.

The Course will also support your personal and social development and will serve you very well in your day-to-day lives.

### **Business**

Business is relevant to everybody, no matter what route their life takes. We all come into contact with businesses on a daily basis - from using public transport, to buying something in a shop to watching TV. Businesses have a powerful influence and impact on us, the economy and the world. The subject area of Business opens up huge opportunities to pupils for life after school, offering a wide range of career paths.

The Course builds on the skills and knowledge obtained in S2 Administration and Business. The Course helps pupil's general education as it will develop essential skills which will stand you in good stead for a large number of careers. It will also build pupil confidence through a range of collaborative tasks and class discussions.

In S3 pupils will study how a business operates and the activities they undertake. The course takes a look at what is a business, why do entrepreneurs start businesses and the different types of businesses in different sectors of the economy. The course also looks at businesses stakeholders, internal and external factors that can affect a business and business ethics. Finally the Course looks at the world of business and personal finance. This course will also develop your employability and enterprise skills..

### **Computing Science**

Computing Science is of vital importance to our global economy and to virtually every aspect of everyday life. Computing science shapes the world we live in and is relevant to a number of areas including science, engineering, medicine, business, education and

games, social media and entertainment. Where would our lives be without Computing Science?

In the S3 course you will build on the skills, knowledge and understanding that you gained in S2 Computing Science by exploring a variety of Computing and Information Systems areas through a number of exploratory and challenging activities.

The S3 course is composed of several units that touch upon many cutting-edge areas of Computing Science and Information Systems.

In software development, you will build upon skills acquired in Scratch programming and continue to explain how code works and to describe what it does. Your skills in using a visual coding language such as Scratch will extend to those skills required to solve problems and to implement your solutions in a textual programming language, such as Visual Basic.

You will learn the basics of Web technologies that are crucial to modern commerce and trade, ranging from banking to shopping for food to buying on Amazon. Web technologies include, HTML, CSS and JavaScript where you will learn how to code in these languages and see how they come together to render the interactive websites that we use around us every day.

The Computer Systems, Networks and Security topic will progress your knowledge and understanding of the cybersecurity threats posed by hackers and you will further learn how to stay safe online, focusing on threats to personal safety and computer security, such as phishing, spyware, hacking, cyberbullying, etc.

A key element of the course is a focus on keeping up-to-date and looking at future trends which includes: artificial intelligence, robots and augmented reality. You will do independent study through using BBC Click materials to gain insights into what is 'hot', where technology is going and the social and environmental implications of these emerging technologies.

You will work independently and in groups to share ideas and outcomes using collaborative, on-line environments such as Glow. There will be many opportunities for you to monitor and to evaluate your progress, through self-assessment questionnaires and to present your work through a range of media such as reports, posters, presentations, animations and games.

Not only will this course teach you valuable computer skills that will help you understand and get the most out of modern technology, it will also provide you with the opportunity to plan, implement and evaluate your work. These are essential skills for successful completion of the added value units in senior phase courses at school and beyond.

Irrespective of the career you are thinking of pursuing, confidence in the use of technology and knowledge of its capability and application is increasingly important in the modern world.

## **Design and Technology**

The course provides a broad practical introduction to design, practical woodwork, practical metal work, materials and manufacturing processes. It provides opportunities for learners to gain skills in both designing and in communicating design proposals as well as following working drawings. It allows learners to explore the properties and uses of materials and to make numerous projects and design folios.

The course combines elements of three N4/5 courses (Practical Woodwork, Practical Metalwork and Design & Manufacture). Whereas the practical metal and woodwork projects focus on reading and following drawings, tools, process and manufacture, the Design and Manufacture project allows learners to explore creativity and designing for aesthetic or visual impact with a requirement to consider a product's function and performance. It helps the learner appreciate the balance that often exists between factors surrounding aesthetics, function, economics and the environment.

The course allows learners to consider the various factors that impact on a product's design. The learner will consider the life cycle of a product and gain opportunities to develop skills that are of general value for learning, life and work:

- reading drawings and diagrams
- following working drawings
- the ability to explain and communicate design ideas and practical details
- the ability to devise and develop practical solutions to design problems developing skills to manufacture their design ideas

The course is of broad general benefit to all learners. It also provides a solid foundation for those considering further study, or a career, in design, manufacturing, trades, marketing, and related disciplines.

***Due to the practical nature of the course there is a charge for materials used.***

## **Graphic Communication**

During the course learners will develop skills in 2D and 3D graphics, as well as pictorial graphics. They will be able to apply these skills in order to produce graphics that require visual impact and graphics that transmit information. Coursework will consist of a combination of engineering drawing (freehand and drawing board), 3D CAD Modelling and production of promotional displays using Desktop Publishing. The CAD and CAG elements to the course will allow pupils to learn the skills needed to create visually effective graphic presentations and use 3D modelling software to create items and generate orthographic and pictorial views.

The course will concentrate on level 4 experiences and outcomes.

Pupils will:

- Develop their creativity and skills within a 2D graphic communication context.
- Develop their creativity and skills within a 3D and pictorial graphic communication context.

- Initiate, develop and communicate ideas using graphic techniques in straightforward and familiar contexts.

The course will develop an understanding of how graphic communication technologies impact on our environment and society.

Pupils who undertake this course can progress on to N4/5 and Higher Graphic Communication and would be particularly suited for pupils who are interested in a career in Art, Architecture, Digital graphics or advertising.

## **Engineering Science**

This course introduces pupils to the world of engineering and the different fields within. We will be looking at the use of Engineering principles in the wider community and how they affect our day to day lives along with learning the techniques to mathematically solve electronic and structural problems and create electronic programmes to control simulations. The course consists of units that cover:

- Applied Electronics- Using numerous equations to work out Voltage, Power and
- Beams (Structures)- Calculating balance and forces
- Introduction to systems- Universal, Open and Closed loop control systems
- Logic- Logic Gates, Circuits and Binary/ Boolean equations
- Energy- Exploring different forms of harnessing and using energy
- Contextual Report (Final Assignment)- Putting learning into practice with an end of year personal project

Each section looks at the basic principles for each area, with focus being on building knowledge for a sound foundation for progression on to N4/5 and Higher.

Pupils who may be particularly suited for this course would be interested in maths and problem solving. Potential careers include Renewable, Civil, Mechanical and Electrical engineering or Electronic programming.



# ALFORD ACADEMY S2 into S3 COURSE CHOICE for SESSION 2018-2019

NAME \_\_\_\_\_

MEL CLASS: \_\_\_\_\_

English & Literacy	Maths & Numeracy	Modern Language (Choose ONE)	Science (Choose ONE)	Social Subjects (Choose ONE)	Technologies (Choose ONE)	Expressive Arts (Choose ONE)	Additional Choices		
							Choose ANY THREE and ONE Reserve		
English	Mathematics	French Spanish	Biology Chemistry Physics	Geography History Modern Studies	Admin Business Computing Craft, Design & Technology (CDT) Graphic Com Food Technologies	Art & Design Drama Music with Technology	Chemistry Geography Admin Art & Design Graphic Communication Engineering Science	Physics History Computing Drama Craft, Design & Technology	RMPS Physical Ed. Business Music 2 <sup>nd</sup> Modern Language
<b>INSTRUCTIONS</b> Put your choice for each Curricular Area in the shaded boxes. Remember to put a reserve too.  Return the signed form to your Guidance Teacher or place in the pupil 'Drop Box'		My current Modern Language is	My choice of Science is	My choice of Social Subject	My choice of Technology is	My choice of Exp Art is	My 1 <sup>st</sup> choice	My 2 <sup>nd</sup> choice	My 3 <sup>rd</sup> choice
		Reserve	Reserve	Reserve	Reserve	My Reserve choice			

<b>CORE SUBJECTS</b>  Personal & Social Ed  Mentoring for Effective Learning  Physical Education  RMPS  Wider Achievement	<b>SIGNATURES</b>  Pupil _____ Date _____  Parent / Carer _____ Date _____  Guidance Teacher _____ Date _____
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