

# Sixth Form



Subject information 2017



## A LEVEL SUBJECTS

## **Art (Fine Art) - GCE A Level – AQA**

### **Course description:**

Students will be introduced to a variety of experiences exploring a range of fine art media, techniques and processes. They will be made aware of both traditional and new technologies, Western and non-Western traditions. Practical work will take on an increasingly personal theme.

Students should be aware of the 4 assessment objectives to be demonstrated in the content and skills presented and of the importance of preparation work as well as final outcome. Students should explore drawing using a variety of methods and media on a variety of scales. Students will use sketchbooks/workbooks/ journals to underpin their work.

**Course level:** A Level

**Course duration:** 2 years

### **What will I learn?**

Traditional and contemporary techniques in ceramics, 3D manipulation, drawing, painting and printmaking.

### **Course assessment:**

Teacher assessment is on-going with all official assessment done at the end of the course and submitted to the board. Students are expected to put up a display of their work prior to it being assessed.

### **Coursework**

**Component 1:** Personal Investigation (60% of A Level)

A body of personal work including a written element of 1000-3000 word essay to be included in a practical unit of work.

**Component 2:** Externally set assignment (40% of A Level)

Students will choose a question set by the exam board to respond to. They will produce a body of prep work concluding with a series of final pieces produced in a 15hr exam.

### **Study commitment outside taught time:**

Students will be expected to complete regular extension activities, spending some time visiting galleries, collecting visual information, drawing, painting and taking photographs outside of the timetabled lessons. Extra-curricular workshops are available for students to attend for extra support and advice.

### **Additional information:**

An exciting, creative and enjoyable course. Useful and essential for art based future courses or careers, including product design, interior design, advertising, fashion, graphics, architecture, textiles or fine art. Essential for the 1 year Art Foundation Course.

## **Computer Science – GCE A Level - AQA**

### **Course description:**

This qualification is designed to support learners who are interested in learning about the computing sector alongside other fields of study, with a view to progressing to a wide range of higher education courses.

**Course Level:** A Level

**Course duration:** 2 years

### **What will I learn?**

This course covers a range of theory topics together with the development of a practical application of computing. The programming language that will be used will be python. The course has 14 units:

1. Fundamentals of programming
2. Fundamentals of data structures
3. Fundamentals of algorithms
4. Theory of computation
5. Fundamentals of data representation
6. Fundamentals of computer systems
7. Fundamentals of computer organisation and architecture
8. Consequences of uses of computing
9. Fundamentals of communication and networking
10. Fundamentals of databases
11. Big Data
12. Fundamentals of functional programming
13. Systematic approach to problem solving
14. Computing, the practical project.

### **Course assessment:**

Paper 1 – On screen exam: 2 hours 30 minutes (40% of A level)

Paper 2 – Written exam: 2 hours 30 minutes (40% of A level)

Non Exam Assessment – Practical Project (20% of A level)

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and practice amounting to at least 3 hours per week.

## **Economics – GCE A Level – Edexcel**

### **Course description**

The Edexcel GCE in Economics is structured into 4 themes and consists of 3 externally examined papers.

Students are introduced to economics through building knowledge of core microeconomic and macroeconomic concepts, and by investigating economic theory through real-world businesses and the environments in which they operate. Breadth and depth of knowledge and understanding with applications to more complex concepts and models are developed in the second year of study.

Students will need to apply their knowledge and understanding to both familiar and unfamiliar contexts in the assessment and demonstrate an awareness of current economic events and policies.

**Course level:** A Level

**Course duration:** 2 years

### **What will I learn?**

**Theme 1** – Markets, Consumers and Firms (scarcity, choice and potential conflicts; enterprise, business and the economy; introducing the market; the role of credit in the economy; market failure and government intervention; revenue, costs, profits and cash)

**Theme 2** – The Wider Economics Environment (business growth and competitive advantage; firms, consumers and elasticities of demand; productive efficiency; life in a global economy; the economic cycle; introduction to macroeconomic policy)

**Theme 3** – The Global Economy (globalisation; economic factors in business expansion; impact of globalisation on global companies; impact of globalisation on local and national economies; global labour markets; inequality and redistribution).

**Theme 4** – Making Markets Work (competition and market power; market power and market failure; market failure across the economy; macroeconomic policies and impact on firms and individuals; risk and the financial sector)

### **Course assessment**

All units are assessed through 3 external examinations (35%; 35%; and 30%).

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and practice amounting to at least 2 hours per week.

### **Additional information**

Students can progress from this qualification to higher education courses such as economics or business degrees. Alternatively, students may choose to enter a wide range of careers ranging from finance, banking, insurance, accountancy, marketing, management and consultancy, to becoming professional economists.

## **English Language - GCE A Level – AQA**

### **Course description:**

English Language is a broad ranging course, covering both an analytical approach to language and a sociological consideration of language too. Additionally, there are opportunities for individual creative writing and independent language research.

**Course level:** A Level

**Course duration:** 2 years

### **What will I learn?**

- Exploring and understanding spoken and written language in use.
- The impact of audience, purpose and context on language use.
- Language use in specific social contexts.
- How to write for a specific audience and purpose.
- How to reflect critically on your own writing and the decisions made in the writing process.
- Independent research skills to pursue your own interests in language study.
- Language variation & change in modern Britain, covering issues concerning attitudes to language.
- Child language acquisition, learning about the key stages in the development of a child's language capabilities.

### **Course assessment:**

Coursework 20%; Exam 80%

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and practice amounting to at least 3 hours per week.

## English Literature - GCE A Level – AQA –Specification B

### Course description:

English Literature A Level aims to give you:

- the skills required to analyse literary texts
- the ability to reflect on what literature can tell us about people, places and societies
- an understanding of the power and possibilities of language
- a life-long appreciation of novels, poems and plays and a love of reading.

**Course level:** A Level

**Course duration:** 2 years

### What will I learn?

#### **Paper 1: Literary Genres**

40% of A Level mark

Three texts studied: one Shakespeare; a second drama text; and one further text written pre-1900. Students study either the tragedy or comedy genre.

#### **Paper 2: Texts and Genres**

40% of A Level mark

Three texts studied: one post-2000 prose text; one poetry; and one further text written pre-1900. Students study either Elements of Crime Writing or Political Writing.

#### **Non-exam assessment:**

20% of total A Level mark

Study of two texts: one poetry and one prose, informed by study of a Critical Anthology.

Two essays at 1250-1500 words, each responding to a different text. One essay can be a re-creative piece with commentary.

#### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and practice amounting to at least 3 hours per week.

## **Geography – GCE A LEVEL - Edexcel**

### **Course description:**

Your GCE Geography course gives you a strong foundation for understanding the two main themes of the subject: human Geography and physical Geography. Between them, they're what makes our planet tick.

Human Geography deals with how people and the environment interact and the way we both exist. For example, you'll learn about stuff you see in the papers and on the news every day, including issues of sustainability. Physical Geography on the other hand, is all about the scientific aspects of our world, with an emphasis on how we can manage them.

**Course level:** A Level

**Course duration:** 2 years

### **What will I learn?**

In the classroom during the first year you'll get a solid grounding in Geography. Human and Physical Geography are studied with physical subjects such as **coastal systems and landscapes** or **water and carbon cycles** and human subjects of **hazards** or **contemporary urban landscapes**. There will also be geographic investigative work and **fieldwork**.

Geography will help you develop a number of essential skills:

- Undertaking research and analysis
- Teamwork on practical projects
- Investigating global issues
- An ability to interpret natural phenomena

### **Course assessment:**

The course is assessed at the end of Year 13 with two written papers (one human and one physical) worth 40% of the qualification each. The final 20% of the qualification is based on a 3000 –4000 word fieldwork investigation based on a topic studied over the two years. This gives you the chance to develop your understanding of an issue you feel passionate about and collect primary data that will support your hypothesis.

### **Study commitment outside taught time (hours per week):**

You will complete approximately 1 hour of homework for every hour in the classroom. This will be supplemented by additional reading.

### **Coursework:**

Students undertake their own independent investigation that is worth 20% of the A Level qualification.

## History – GCE A Level – AQA

### Course description:

The best reason for studying a History course is that the past fascinates you and you enjoy studying it. The course is designed to develop your interest in and enthusiasm for the subject. Historians are trained in clear thinking and the ability to understand people and situations in the world at large. History equips you with a range of skills and is a well-respected subject. It complements many other subjects and provides skills and understanding that will always be valuable in any career. It is worth noting that universities and employers value the skills developed in History.

**Course level:** A Level

**Course duration:** 2 years

### What will I learn?

#### **Component 1 – Breadth Study – The Tudors 1485-1603**

This involves the study of significant historical developments over a period of around **100 years**. The monarchs to be studied are Henry VII, Henry VIII, Edward VI, Mary I and Elizabeth I. Themes to be studied include religious change, how the country was governed, relations with foreign powers, rebellion and plots.

#### **Component 2 – Depth Study – The Cold War 1945-1991**

This involves the study in depth of a major historical change or development. The course begins at the end of World War 2 and looks at relations between America and the Soviet Union. The course finishes with the fall of the Berlin Wall and the subsequent collapse of communism.

In addition, the A Level includes **Component 3 – Historical Investigation (Personal Study)**.

### Course assessment

- Two exams, 1 for each component, both of 2½ hours, consisting of 3 questions. Each exam is worth 40% of the A Level.
- **Coursework** - You also complete a Historical Enquiry based on a topic of your choice of 3000-3500 words, worth 20% of the A Level.

### Study commitment outside taught time (hours per week):

Students will be expected to complete regular homework and spend some time on revision and practice of exam-style questions amounting to at least 3 hours per week. Additional reading is very important for success in this subject. It is so true that the more you put in, the more you get out!

## Law – GCE A Level – AQA

### Law – GCE A Level – AQA

#### Course Description :

A Level Law is a varied and interesting course. Studying Law gives students an understanding of the role of Law in today's society and raises their awareness of the rights and responsibilities of individuals.

By learning about legal rules and how and why they apply to real life, students also develop their analytical ability, decision making, critical thinking and problem-solving skills. All these skills are highly sought after by higher education institutions and employers.

**Course Level :** A Level

**Course Duration :** 2 years

#### What Will I Learn?

**The Nature of Law and the English Legal System** – law and morality, law and justice, the rule of law, parliamentary law making, delegated legislation, statutory interpretation, judicial precedent, law reform, the EU, the legal system, civil courts, criminal courts, lay people, legal personnel, the judiciary, access to justice and funding.

**Criminal Law** – rules and theory in criminal law, liability, fatal offences, non-fatal offences against the person, property offences, preliminary offences, defences

**Tort** – rules and theory of tort law, liability in negligence for physical injury and damage to property, liability for economic loss and psychiatric injury, occupier's liability nuisance, vicarious liability, defences, remedies

**Law of Contract** – rules and theory of contract law, essential requirements, contract terms, discharge of a contract, remedies

**Human Rights** – rules and theory in human rights, human rights in international law, human rights in the UK prior to HR Act, European Conventions, restrictions, enforcement, HR and English law

#### Course Assessment :

Students will sit three written examination papers at the end of Year 13. Each paper is 2 hours in length, and worth 100 marks.

#### Study commitment outside taught time (hours per week) :

Students will be expected to complete regular homework and spend time on their assignments, amounting to at least 3 hours per week.

## Mathematics - GCE A Level - AQA

### Course description:

The course forms an essential area of study for those wishing to pursue degrees in mathematical or engineering-based subjects and is also useful for the applied sciences. It builds on the work covered in the GCSE syllabus and consists of 3 units covering Pure Mathematics and Statistics in Year 12 and 3 more units in Pure and Mechanics in Year 13. It is a highly sought-after qualification, much valued by employers and universities.

**Course level:** A Level

**Course duration:** 2 years

### What will I learn?

#### Year 12:

**Pure Core 1 (MPC1):** Algebra, Coordinate Geometry, Differentiation, Integration.

**Pure Core 2 (MPC2):** Algebra and Functions, Sequences and Series, Trigonometry, Exponential and Logarithms, Differentiation, Integration.

**Statistics 1 (MS1B):** Collection of data, Numerical measures, Representation of data, Probability, Binomial distribution, Poisson Distribution, Normal Distribution, Correlation, Regression.

#### Year 13:

**Pure Core 3 (MPC3):** Algebra and Functions, Trigonometry, Exponential and Logarithms, Differentiation, Integration, Numerical Methods.

**Pure Core 4 (MPC4):** Algebra and Functions, Coordinate Geometry in (x,y) plane, Sequences and Series, Trigonometry, Exponential and Logarithms, Differentiation and Integration, Vectors.

**Mechanics 1 (MM1B):** Mathematical Modelling, Kinematics in 1 and 2 Dimensions, Statics and Forces, Momentum, Newton's Laws of Motion, Connected Particles, Projectiles.

### Course assessment:

All modules are assessed through written examinations set by AQA exam board, each module contributing 16.6% of total marks. There is a written exam paper of 1½ hours for each module, all of which will be assessed at the end of Year 13.

### Study commitment outside taught time:

Students will be expected to complete regular homework and spend some time on revision and practice amounting to at least 3 hours per week.

**Additional information:** for further information contact Mr Parkinson (Head of Mathematics) or Mr Touil (KS5 coordinator for Mathematics).

## **Media Studies – GCE A Level - WJEC**

### **Course description:**

The media play a central role in contemporary culture and society. They shape our perceptions of the world through the representations, ideas and points of view they offer. The media have real relevance and importance in our lives today, as we are constantly surrounded by it. This course offers students the opportunity to develop a thorough and in depth understanding of key issues, using theories to support critical exploration, analysis and debate. Students will study a variety of media forms such as TV, music videos, video games, advertising, film marketing, news and radio offering opportunities for detailed analysis of how the media communicate meanings. Students will have exciting opportunities to develop media production skills through practical coursework applying their knowledge and understanding their selected media forms and become creators of meaning themselves. Students will be offered a choice of briefs and forms within which to work, enabling them to explore and pursue their own media interests.

**Course level:** A Level

**Course duration:** 2 years

### **What will I learn?**

Component 1 (Meanings and Representations in the Media) introduces students to the knowledge, understanding and skills required to analyse media products through the study of key areas - media language and representation. These areas are studied through music videos, video game, advertising, film marketing, newspapers and radio.

In Component 2 (Media Forms and Products In Depth), students build on the knowledge and understanding developed in Component 1 by studying four areas of the theoretical framework - media language, representation, audiences and media industries in relation to television, magazine, blogs and websites which are set by the exam board.

Component 3 (Cross-Media Production) is the practical part of the course and allows students to create an individual cross-media production in two different forms for an intended audience in response to a choice of briefs set by the exam board. The forms that learners can work in include television, magazines, film marketing, music marketing and online options. The intended audience and industry context are specified in the brief.

### **Course assessment:**

**Component 1** (2 hour exam), **Component 2** (3 hour exam) **Component 3** (coursework)

### **Study commitment outside taught time (hours per week):**

Approximately 1-2 hours written homework and 1-2 hours reading around the subject from a range of core texts and general sources. You will be expected to use the facilities (mac suite) after school to complete practical coursework too.

## **Photography – GCE A Level - AQA**

### **Course description:**

This is an A Level practical photography art course. Students will learn technical photographic skills such as viewpoint, composition, aperture, depth of field, shutter speed and movement and then apply them to increasingly personal themes over the duration of the course. They will learn appropriate use of the camera and lighting.

**Course level:** A Level

**Course duration:** 2 years

### **What will I learn?**

The course includes the study of photographic techniques; experimental art based skills; and digital photography. High levels of skills and expertise will be developed. You will learn how to study the work of photographers and artists critically and use this to help develop your own ideas with increasing independence. The course is 100% practical with a written element included within this work. Students will work in sketchbooks and on electronic portfolios to develop ideas and will produce final photographic pieces.

### **Course assessment:**

Teacher assessment is on-going with all official assessment done at the end of the course and submitted to the board. Students are expected to put up a display of their work prior to it being assessed.

### **Coursework**

#### **Component 1: Personal Investigation; 60% of A Level**

A body of personal work including a written element of 1000-3000 word essay to be included in a practical unit of work.

#### **Component 2: Externally set assignment; 40% of A Level**

Students will choose a question set by the exam board to respond to. They will produce a body of prep work concluding with a series of final pieces produced in a 15hr exam.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and extension activities spending some time on revision and practice amounting to at least 3 hours per week. Extra-curricular workshops are available for students to attend for extra support and advice.

### **Additional information:**

Useful and essential for art based future courses or careers, including product design, interior design, advertising, fashion, graphics, architecture, textiles or fine art. Essential for the one year Art Foundation course.

## Physical Education - GCE A-level – AQA

### Course description:

The course is varied in nature but sport is the underlying common denominator in all areas. Physiology and anatomy is explored as the human body is analysed in motion together with the effect of exercise on the heart and lungs. Information processing is an area that looks at how the brain co-ordinates the body to complete complex actions in sport. Sport Psychology investigates aspects of the elite performer's influences and aspects. All the lessons are theoretically based, but lessons are sometimes conducted practically to help reinforce the theoretical work. In addition, students also have to either perform or coach, in one sport to a high level.

**Course level:** Level 3

**Course duration:** 2 years

### What will I learn?

- Applied physiology and anatomy of human performance
- Exercise physiology – how our bodies react to exercise
- Skill acquisition – how we learn skills and measure performance
- Sport and society – technology in sport, and other aspects
- Biomechanics of human motion; how the body moves in time and space
- Sport Psychology

**Practically:** Students perform, analyse and evaluate the execution of core skills/techniques in a full sided version of one activity as either a performer or a coach

### Course assessment:

2 written exams (35% each); 2 hours each and practical coursework (30%); internal assessment with external moderation.

### Study commitment outside taught time (hours per week):

It is expected that students are a member of an external sporting club with weekly commitments to training and competition. 2 hours minimum plus 2 hours of homework a week.

### Coursework:

The practical performance or coaching is assessed for 15% and then 15% written analysis of their performance

### Additional information

PE A-level is considered a science A-level by many of the top universities. It leads into university courses in Sport Science, Physiotherapy and Occupational therapy.

## **Product Design – GCE A Level - AQA**

### **Course description:**

AQA Design and Technology: Product Design (3D) helps students take a broad view of design and technology, develop their capacity to design and make products and appreciate the complex relations between design, materials, manufacture and marketing.

**Course level:** A Level

**Course duration:** 2 years

### **What will I learn?**

This qualification focuses on the design and manufacture of products - how products are made and why. Materials technology; design and market influences; sustainability; processes and manufacture; and finishing processes will all be covered in a practical, problem solving environment.

### **Course assessment:**

PROD1 (2 hour exam); PROD2 (Coursework - currently design and manufacture lighting); PROD3 (2 hour exam); PROD 4 (Coursework - currently design and manufacture furniture).

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend time on revision and coursework amounting to at least 3 hours per week.

### **Additional information:**

Students will develop designing skills and manufacturing skills using wood, metal and plastic. A wide range of tools and technologies will be used including Computer Aided Design and Manufacture on the Denford Laser Cutter.

## Psychology – GCE A Level – AQA

### Course description:

The word 'Psychology' is derived from the Greek words *psyche* (mind) and *logos* (knowledge / study). Psychology is often referred to as 'the science of mind and behaviour.'

**Course level:** A Level

**Course duration:** 2 years

### What will I learn?

**Social influence:** You will study social influence, including why people obey and conform.

**Memory:** You will study how the memory works and the implications this has for Eye Witness Testimonies and court cases.

**Attachment:** You will study how infants and animals develop attachments and learn about case studies where children have not made an attachment.

**Psychopathology:** You will learn about explanations for and treatments for mental illnesses, including phobias and OCD from a variety of Psychological Approaches.

**Approaches in Psychology:** You will consider the origins of Psychology and the basic assumptions of different approaches in Psychology.

**Biopsychology:** You will learn about divisions of the nervous system, synaptic transmission, the endocrine system, hemispheric lateralisation and brain scanning techniques.

**Research methods:** You will learn how Psychologists design and analyse psychological investigations.

**Issues and debates in psychology:** You will learn how to apply psychological issues and debates, including freewill vs determinism, nature vs nurture and holism vs reductionism.

**Gender:** You will learn about the role of chromosomes and hormones in determining sex and gender. Different explanations of gender identity and gender identity disorder.

**Stress:** You will learn how the body responds to stress and how this can result in stress-related illnesses. You will also learn how to manage stress.

**Aggression:** You will study different explanations of aggression, including evolutionary and social factors. Institutional effects of aggression in prisons and whether computer games make us more violent.

### Course assessment:

3 x 2 hour exams, each is worth 33.3% of the total A Level.

**Study commitment outside taught time (hours per week):** 5 hours per week. You will be expected to read over your notes after every lesson and complete regular homework.

### Additional information:

Psychology is considered a science when applying to university. In addition to the wide range of careers in Psychology and the mental health services, other careers include: personnel and human resources; caring professions; banking, commerce and industry; career guidance and counselling; public relations; advertising and marketing.

## Science – Biology - GCE A Level – AQA

### Course description:

The course builds on concepts and skills that will have been developed in the GCSE Science specifications and has been re-written to reduce the overlap with GCSE so that students encounter new, challenging content. Bio-technology is currently having the biggest impact of any field of Science on our day to day lives. It has the potential to solve the world's man-made problems and take us into a better future for all life, on Earth and beyond. There are potential areas of employment being developed in Bio-technology at a rapid rate and students in Britain are well placed to move into these new and exciting fields, along with the more well-established careers such as Bio-medical science. A Level Biology will nurture a passion for Biology and give students the skills and knowledge to lay the foundations for further study and careers in Biological Sciences and medicine.

**Course level:** A Level

**Course duration:** 2 years

### What will I learn?

Topic 1: Biological Molecules

Topic 2: Cells

Topic 3: Organisms exchange substances with their environment

Topic 4: Genetic information, variation and relationships between organisms

Topic 5: Energy transfers in and between organisms

Topic 6: Organisms respond to changes in their internal and external environment

Topic 7: Genetics, populations, evolution and ecosystems

Topic 8: The control of gene expression

### Course assessment:

Paper 1:

Any content from topics 1-4, including relevant practical skills, 2 hours = 35% of A Level

Paper 2:

Any content from topics 5-8 including relevant practical skills, 2 hours = 35% of A Level

Paper 3:

Any content from topics 1-8, including relevant practical skills, 2 hours = 30% A Level.

### Study commitment outside taught time (hours per week):

Students will be expected to complete about 1 hour of homework per hour taught in class including preparatory reading.

### Coursework:

No coursework component, but practical work will be assessed in the written papers and competency will be internally assessed throughout the two year course. If the required standard is met an endorsement of practical skills will be included on the final certificate. 15% of the total A Level marks will be for practical knowledge and understanding.

## Science – Chemistry – GCE A Level – AQA

### Course description:

The AQA Chemistry course builds upon many of the areas encountered at GCSE. Ideas around the structure of the atom are extended and used to explain trends seen in the periodic table. Inorganic and organic chemistry are greatly extended and ideas in physical chemistry are given additional depth by treating them in a more mathematical and quantitative manner. Practical skills are also developed through the use of new equipment and techniques.

**Course level:** A Level

**Course duration:** 2 years

### What will I learn?

#### *Physical chemistry*

Atomic structure; Amount of substance; Bonding; Energetics; Kinetics; Chemical equilibria and Le Chatelier's principle; Oxidation; reduction and redox equations; Thermodynamics; Rate equations; Equilibrium constant  $K_c$  for homogeneous systems; Electrode potentials and electrochemical cells; Acids and bases.

#### *Inorganic chemistry*

Periodicity; Group 2; Group 7; Properties of Period 3 elements and their oxides; Transition metals; Reactions of ions in aqueous solution.

#### *Organic chemistry*

Introduction to organic chemistry; Alkanes; Halogenoalkanes; Alkenes; Alcohols; Organic analysis; Optical isomerism; Aldehydes and ketones; Carboxylic acids and derivatives; Aromatic chemistry; Amines; Polymers; Amino acids; proteins and DNA; Organic synthesis; Nuclear magnetic resonance spectroscopy; Chromatography.

### Course assessment:

Three 2 hour exams assessing all of the above material including relevant practical knowledge and skills.

### Study commitment outside taught time (hours per week):

Students will be expected to complete about 1 hour of homework per hour taught in class including preparatory reading.

### Practical skills:

These will be assessed internally throughout the course and, if the required standard is met, an endorsement of practical skills will be included on the final certificate.

## Science – Physics – GCE A Level – AQA

### Course description:

Physics is a challenging and exciting subject which aims to explain how things work from the very small to the very big including even the universe itself. The qualification will open doors to many careers which are in great demand nationally. As a discipline, physics is used by many industries professionally for example, engineering, health and biomedicine, public services and utilities, finance, environmental services, education, gaming and computing to name a few.

The Physics course builds upon previous GCSE subject knowledge and provides a deeper understanding of the way the world around us works. The course will develop interest and enthusiasm for other science subjects and also mathematics, although neither are required to undertake physics full time.

**Course level:** A Level

**Course duration:** 2 years

### What will I learn?

The specification introduces new topics as well as building on previous studies in physics.

- |                               |                                       |
|-------------------------------|---------------------------------------|
| 1 Measurements & their errors | 5 Electricity                         |
| 2 Particles and radiation     | 6 Further mechanics & thermal physics |
| 3 Waves                       | 7 Fields and their consequences       |
| 4 Mechanics and materials     | 8 Nuclear physics                     |

There are also a selection of optional units, from which one must be chosen. These are Astrophysics, Medical physics, Engineering physics, Turning points in Physics and Electronics.

### Course assessment:

Three exam papers each 2 hours assessing 1-8 above and the option unit.

### Study commitment outside taught time (hours per week):

Students will be expected to complete about 1 hour of homework per hour taught in class including preparatory reading.

### Practical skills:

These will be assessed internally throughout the course and, if the required standard is met, an endorsement of practical skills will be included on the final certificate. The practical skills will not count towards the overall A Level grade.

## BTEC LEVEL 3 SUBJECTS

## **Applied Science – BTEC Level 3 National Extended Cert & BTEC Level 3 National Diploma - Edexcel**

### **Course description:**

The course builds on concepts and skills that will have been developed in the GCSE Science specifications. The Extended Certificate is Equivalent to 1 A Level & the National Diploma to 2 A Levels.

**Course level:** BTEC Level 3

**Course duration:** 2 years

### **What will I learn?**

#### **Extended Certificate**

**Unit 1** Principle & Applications of Science I

**Unit 2** Practical Scientific Procedures & Techniques

**Unit 3** Scientific Investigation Skills

**Optional Unit** – this will depend on the interests and career aspiration of the class

**Diploma** – as for Ex.Cert., plus:

**Unit 4** Lab Techniques and their Application

**Unit 5** Principle & Applications of Science II

**Unit 6** Investigative Project

**Two Optional Units** – as for Extended Cert.

### **Course assessment:**

- **Assignments** – are set & marked by teachers and verified by BTEC

Students complete a series of tasks set in a work related environment following formal related teaching in school.

- **Tasks**

Practical Science tasks taken under controlled conditions with tasks based on pre-released information from BTEC.

- **Written exams**

Formal exams based on the practical and applied science studied in school and related to the task set in the Assignments.

- **External assessment** - combining Tasks & Written Exams - will make up **40%** of course assessment.

**Study commitment outside taught time** Students will be expected to complete about 1 hour of homework per hour taught in class including preparatory reading and will be expected to attend a series of work related visits which may be outside normal school hours.

### **Additional information**

Students who are successful with Level 3 BTEC Applied Science courses may progress to employment or HE courses in Science related disciplines such as Pharmacy, Nursing and Forensic Science.

**Business – BTEC Level 3 National Extended Certificate – Pearson**

## **Course Description :**

The BTEC Level 3 Extended Certificate is broadly equivalent to one GCE A Level. The programme aims to provide students with an understanding of the operations and structures of businesses and also to equip students with the skills required to succeed in employment or at university. The course will involve businesses in the public, private and voluntary sectors.

This course is designed to be taken as part of a programme of study that includes other appropriate BTEC Nationals or A Levels.

**Course Level :** BTEC Level 3

**Course Duration :** 2 years

## **What Will I Learn?**

The learning programme covers the following content areas:

- business environments
- finance
- marketing

The optional units have been designed to support choices in progression to business courses in

higher education and to link with relevant occupational areas:

- human resources
- accounting
- marketing
- law

## **Course Assessment :**

**Mandatory units :** There are 3 mandatory units that learners must complete, 1 internal and 2 external. Of the external units, one is a written examination, and one is a Controlled Assessment. Learners must complete and achieve at pass grade or above for all these units.

**Optional units :** Learners must complete 1 optional unit.

## **Study commitment outside taught time (hours per week) :**

Students will be expected to complete regular homework and spend time on their assignments, amounting to at least 3 hours per week.

## **Coursework :**

Two pieces of coursework will be completed, which together account for 42% of the final grade.

## **Engineering – BTEC Level 3 Subsidiary Diploma - Edexcel**

### **Course description:**

Our Engineering course allows students to prepare themselves for university and employment. Students will learn how to apply maths and physics in an engineering environment.

**Course level:** BTEC Level 3

**Course duration:** 2 years

### **What will I learn?**

1. Unit 1: Engineering Principles - External Exam
2. Unit 2: Delivery of Engineering Processes Safely as a Team – Internal Coursework
3. Unit 3: Engineering Product Design and Manufacture - External Exam
4. Unit 10: Computer Aided Design in Engineering – Internal coursework

### **Course assessment:**

There will be written, calculated work and practical investigation.

Some assessments will take the form of a presentation. Some units will involve the fabrication of a product or the creation of a drawing.

Some units are assessed through an externally set examination.

The majority of these units are delivered within the classroom environment with several opportunities for practical learning and links to real life industrial situations.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and coursework amounting to at least 3 hours per week.

### **Coursework:**

**Year 1:** Health and Safety in Engineering – iPod stand, toast rack and keyring projects  
Engineering Drawings for Technicians – SolidWorks project  
Fabrication Technology – Various mini projects.

**Year 2:** Properties and Applications of Engineering Materials - Sandcasting project  
Electrical and Electronic Principles – FM radio PCB  
Mathematics for Technicians – various mini projects.

### **Additional information:**

Engineering underpins many areas of employment – from transport to medicine; from the car industry to space exploration. Therefore, this course provides future opportunities in a variety of fields. Demand for engineers is high and our students will gain an excellent grounding in the fundamental areas of the subject. Successful completion of the course could lead to university or a wide range of employment opportunities. You need English, maths and Science at grade C or above to start the course.

## **Health & Social Care – BTEC Level 3 National Extended Certificate & BTEC Level 3 National Diploma – Edexcel**

### **Course description:**

The BTEC qualifications in this specification have been developed in the health and social care sector to: provide education and training for health and social care employees; give health and social care employees opportunities to achieve a nationally recognised Level 3 vocationally-specific qualification; give full-time learners the opportunity to enter employment in the health and social care sector or to progress to vocational qualifications such as the Edexcel BTEC Higher Nationals in Health and Social Care; and to give learners the opportunity to develop a range of skills and techniques, personal skills and attributes essential for successful performance in working life.

The National Extended Certificate in Health and Social Care is equivalent to 1 GCE A Level; the National Diploma is equivalent to 2 GCE A Levels.

**Course level:** BTEC Level 3

**Course duration:** 2 years

### **What will I learn?**

#### **The National Extended Certificate**

This consists of 3 mandatory units and 1 optional unit. Examples of units are: Human Lifespan Development; Working in Health and Social Care; Sociological Perspectives; and Psychological Perspectives.

#### **The National Diploma**

This consists of 6 mandatory units - 3 internal and 3 external units. These include: Enquiries into Current Research in Health and Social Care; Human Lifespan Development; Working in Health and Social Care; and Work Experience in Health and Social Care.

### **Course assessment:**

There are 2 exams for this subject - units 1 and 2, which are 1.5 hrs long and are worth 58% for the Extended Certificate and 46% of the final mark for the Diploma. Other units are internally assessed coursework or externally set and assessed tasks.

Assessment is specifically designed to fit the purpose and objective of the qualification. It includes a range of assessment types and styles suited to vocational qualifications in the sector. There are three main forms of assessment that you need to be aware of: external, internal and synoptic.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on assignment work amounting to at least 5 hours per week.

### **Additional information:**

With the international recognition of BTEC courses, this course enables students to progress directly into the workplace, onto more vocational programmes or on to higher education.

## **Information Technology - BTEC Level 3 Subsidiary Diploma – Edexcel**

### **Course description:**

The BTEC Level 3 in IT course is ideal for those students with a strong interest in ICT who want to develop and extend a wide range of ICT skills. This course will enable you to develop into an independent and effective user of ICT, arming you with the ICT tools and skills that a modern workplace demands. This qualification is the equivalent of 1 A Level.

**Course level:** BTEC Level 3

**Course duration:** 2 years

### **What will I learn?**

The work that you cover will provide you with a range of opportunities to develop analytical and problem solving skills and others such as planning and conducting a research project, all of which are excellent preparation for higher education. This course is designed to give a broad introduction to ICT and aims to prepare candidates for further study in higher education or further training which might be whilst in employment. This may be in ICT or in a business environment.

### **Course assessment:**

The course is assessed via coursework portfolios of evidence, 1 per unit of work, these are graded at Pass, Merit and Distinction – 3 units are studied per year.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and practice amounting to at least 3 hours per week.

## **Sport - BTEC Level 3 National Extended Certificate in Sport (NCF) & BTEC Level 3 National Diploma in Sport (NCF) – Edexcel**

### **Course description:**

BTEC Level 3 Nationals are specialist vocational qualifications in the sports sector. Two courses are available for study:

- National Extended Certificate in Sport - Equivalent to 1 GCE A Level; 360 guided learning hours.
- National Diploma in Sport - Equivalent to 2 GCE A Levels; 720 guided learning hours.

**Course level:** BTEC Level 3

**Course duration:** 2 years

### **What will I learn?**

National Extended Certificate in Sport: Throughout the two year programme of study students will undertake four units of work. Three of these units are mandatory; Anatomy & Physiology, Fitness Training & Programming and Professional Development in the Sports Industry, with one optional additional unit to be selected from a wide range.

National Diploma in Sport: Students will undertake the same three mandatory units detailed above, along with another seven units, some mandatory and some optional. Examples include Sports Psychology, Coaching for Performance and The Athletes Lifestyle.

### **Course assessment:**

National Extended Certificate in Sport: Externally assessed coursework and examinations: 67% of the qualification. Internally set and assessed coursework: 33% of the qualification.

National Diploma in Sport: Externally assessed coursework and examinations: 44% of the qualification. Internally set and assessed coursework: 56% of the qualification.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on assignment work amounting to at least 3 hours per week.

### **Additional information:**

The course primarily consists of the theoretical study of sport. There is therefore no specific practical element to the course. However, many topics throughout the course involve practical work to highlight and reinforce key areas of study – a willingness to get involved in practical work is therefore essential!

The course is ideal for anyone looking to pursue careers in the fitness and leisure industry, coaching, or working with children. It is also relevant for those looking to follow a degree course in Sport & Exercise Science, Teaching, or an HND in Sport.

## BTEC LEVEL 2 SUBJECTS

## **Business – BTEC Level 2 First Award in Business - Edexcel**

### **Course description**

The BTEC Level 2 First Award in Business has been designed to provide an engaging and stimulating introduction to the world of business, and provides a good introduction to business for learners in post-16 education. This is a practical, work related course. Students learn by completing assignments that are based on realistic workplace situations and activities. It introduces students to particular areas of business and employment.

**Course level:** BTEC Level 2

**Course duration:** 1 year

### **What will I learn?**

Students will complete 2 compulsory units, which are :

**Unit 1** - Enterprise in the Business World (appreciate how trends and the current business environment may impact on a business; plan an idea for a new business; present a business model for a business start-up)

**Unit 2** - Finance for Business (understand the costs involved in business and how businesses make a profit; understand how businesses plan for success; understand how businesses measure success and identify areas for improvement)

Pupils will also study 2 optional units. These optional units include: Promoting a Brand, Principles of Customer Service, Sales and Personal Selling, Introducing Retail Business, Providing Business Support, Recruitment, Selection and Employment.

### **Course assessment**

All units (apart from Unit 2) are internally assessed and graded by teachers. Unit 2 is an externally assessed unit, comprising of an on-line test which is set and marked by Edexcel. Investigative work forms the basis of this course. Students will complete an assignment for each of the units studied. Grades awarded are Pass, Merit, and Distinction.

### **Study commitment outside taught time (hours per week)**

Students will be expected to complete regular homework and spend time on their assignments, amounting to at least 3 hours per week.

### **Coursework**

Three assignments, which are all internally assessed.

### **Additional information**

This qualification provides a good foundation for learners in post-16 education. It could also prove beneficial in securing entry level job roles within related careers (e.g. accounting, administration, customer service, IT, personnel, marketing or sales), or in securing an Apprenticeship. Achievement at Level 2 provides a suitable foundation for further progression on to other vocational qualifications at Level 3, such as the BTEC Level 3 Nationals in Business.

## **Engineering – BTEC Level 2 Award in Engineering - Edexcel**

### **Course description:**

The aim of the course is to develop a theoretical and practical understanding of engineering skills and is equivalent to a GCSE qualification. The pathway allows students to gain both a practical and academic understanding of the types of information, materials, skills and processes that are used by those working in the engineering sector. This includes developing their background knowledge and gaining expertise in mechanical engineering, electrical engineering and CAD software.

**Course level:** BTEC Level 2

**Course duration:** 1 year

### **What will I learn?**

BTEC Level 2 award is a 1 year qualification consisting of 4 modules. Students will learn about: Health and Safety in the Engineering Workshop; Computer – aided Engineering, Investigating an Engineered product and the engineered world.

### **Course assessment:**

Computer-aided engineering and Working Safely and Effectively in Engineering are internally assessed through coursework. Investigating an Engineered Product is an externally assessed unit and The Engineered World is an external exam which is worth 25% of the overall mark.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and coursework amounting to at least 2-3 hours per week.

### **Coursework:**

- Working Safely and Effectively in Engineering – IPod stand, toast rack, egg cup and keyring projects
- Computer-aided Engineering – LED lamp and F1 project
- Investigating an Engineered Product – Ipod speaker

### **Additional information:**

Engineering underpins many areas of employment – from transport to medicine; from the car industry to space exploration. Therefore, this course provides future opportunities in a variety of fields. Demand for engineers is high and our students will gain an excellent grounding in the fundamental areas of the subject.

## **Health & Social Care – BTEC Level 2 First Award – Edexcel**

### **Course description:**

The Edexcel BTEC Level 2 First Award in Health and Social Care has been developed to provide an engaging introduction to the sector for learners. It has been designed primarily for young learners who want a vocationally focused introduction to this area of study.

**Course level:** BTEC Level 2

**Course duration:** 1 year

### **What will I learn?**

The course consists of 2 mandatory units which are:

- Human Lifespan Development
- Health and Social Care Values

A further 2 optional units will be selected from the following:

- Effective Communication in Health and Social Care
- Social Influences on Health and Wellbeing
- Promoting Health and Wellbeing
- The Impact of Nutrition on Health and Wellbeing
- Equality and Diversity in Health and Social Care
- Individual Rights in Health and Social Care

The choice of units which will be delivered will take account of the educational needs and career aspirations of learners.

### **Course assessment:**

There is one exam (1 hour) for this subject worth 25% of the final grade. Other units are internally assessed coursework or externally set and assessed tasks which make up 75% of final grade.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on assignment work amounting to at least 5 hours per week.

### **Coursework:**

The assessment approach taken in internally assessed units of the Edexcel BTEC Level 2 First Award in Health and Social Care allows learners to receive feedback on their progress throughout the course as they provide evidence towards the assessment criteria. Evidence for assessment may be generated through a range of diverse activities, including assignment and project work, case studies, workplace assessment, role play and presentations.

### **Additional information:**

The skills learnt in studying a BTEC First will aid progression to further study and prepare learners to enter the workplace in due course. In the health and social care sector, typical employment opportunities may be as an apprentice or in a supervised entry role, depending on specific job requirements and age restrictions. This qualification provides learners with a taste of what the health and social care sector is like, enabling them to make informed choices about their future career.

## **Science – BTEC Level 2 First Award in Principles and Applied Science – Edexcel (2GCSE)**

### **Course description**

**The Principles of Applied Science Award** is a Level 2 qualification teaching key scientific principles vital for both scientists and citizens. The qualification is appropriate for students of all abilities who will benefit from a practical approach to learning in a vocational context. It has been developed to:

- give learners the opportunity to gain a broad understanding of science principles and practice
- give learners the opportunity to develop a range of related skills that are essential for successful performance in working life
- give opportunities for learners to achieve a nationally recognised Level 2 science qualification
- support progression into a more specialised Level 3 vocational or academic course or into an apprenticeship.

**Course level:** BTEC Level 2

**Course duration:** 1 year

### **What will I learn?**

The course has 4 mandatory units which learners must complete. These are:

**Unit 1 - Principles of Science** (External Assessment 25%)

**Unit 2 - Chemistry and Our Earth** (Internal Assessment 25%)

**Unit 3 - Energy and Our Universe** (Internal Assessment 25%)

**Unit 4 - Biology and Our Environment** (Internal Assessment 25%)

### **Course assessment**

Units 2, 3 and 4 are internally assessed and graded by teachers. Unit 1 is a written exam set and marked by Edexcel. Investigative work set in a work based setting forms the basis of this course. Students will complete assignments for each of the units studied. Grades awarded are **Pass, Merit, and Distinction**.

### **Study commitment outside taught time (hours per week)**

Students will be expected to complete regular homework and spend time on their assignments, amounting to at least 3 hours per week.

### **Coursework**

Three assignments, which are all internally assessed.

### **Additional information**

Vocational learning in science is critical to enabling technical roles in the STEM sector to be supported. From the knowledge and skills developed in this qualification you may expect to seek employment at a junior level working in companies that manufacture pharmaceuticals, computer-chip technology materials and food products; or in companies that investigate the causes of disease and help to combat pollution; or with energy companies.

## **BTEC FIRST AWARD IN SPORT – EDEXCEL**

### **Course description:**

The BTEC First Award in Sport is an exciting specialist vocational qualification in the sports sector. It is equivalent to 1 GCSE and consists of a number of units that accumulate to a total of 120 guided learning hours.

**Course level:** Level 2

**Course duration:** 1 year

### **What will I learn?**

A number of different units will be studied over 2 years. These include:

- Fitness for sport & exercise: What are the different components of fitness and how do we plan to improve these?
- Practical sport performance: Students develop their techniques in a range of sports and apply them in competitive scenarios.
- The sports performer in action: What makes a successful sportsman? This unit focuses on the anatomy and physiology of the human body in action.
- Leading sports activities: An introduction to sports leadership and coaching.

### **Course Assessment**

The 'Fitness for sport and exercise' unit is assessed via an external exam worth 25% of the course. All other units are assessed internally through coursework (75%).

### **Coursework:**

The Practical sport performance, Leading sports activities and The sports performer in action units are assessed through the production of written reports, both inside and outside the classroom.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and coursework amounting to at least 3 hours per week.

### **Additional information**

This course can provide a good grounding for anyone wishing to work in the fitness and leisure industry, coaching, working with children. It also allows for progression onto BTEC level 3 sport courses / A Level Physical Education at Beckfoot Thornton sixth form.

A willingness to get involved in both practical and theoretical aspects of study is essential!

## **ICT – GCSE - Edexcel**

### **Course description:**

GCSE in ICT is a 1 year course which will give students an understanding of how ICT and digital technology are vital in the modern world. Students will explore what it is to be a responsible digital citizen and, through independent coursework, will build skills and experience of a wide range of professional software packages.

For many students, GCSE ICT will enable the refinement of creative abilities and support the development of independent thinking, as well as prepare them for the many ways in which they will use technology in their future beyond education.

**Course level:** GCSE Level 2

**Course duration:** 1 year

### **What will I learn?**

There are 2 Units to the GCSE Course:

#### **Unit 1 – Living In a Digital World**

This is a theory unit which is assessed through external examination and is worth up to 40% of the final grade. The exam is taken at the end of the course. The topics we cover include 'Let's communicate', 'On the move', 'Entertain me - what to buy', 'Smart working', 'Shopping experience!' and 'Health and well-being'. These topics include areas such as what games console to buy and how networks should be set up and how businesses use ICT to aid their day to day life. The skills and understanding that you will develop are real life skills that will help you develop in any future career!

#### **Unit 2 – Using Digital Tools**

The Controlled Assessment takes place with assessment of gathering information, developing digital products and spreadsheet modelling. In recent years, the themes have been based around producing digital products for a company that organises school proms such as digital posters, websites and promos that you may hear on the radio – A real life, fully developed ICT solution to a given problem!

### **Course assessment:**

Unit 1: Written examination (Living in a digital world) worth 40%.

Unit 2: Controlled assessment (Using digital tools) worth 60%.

### **Study commitment outside taught time (hours per week):**

Students will be expected to complete regular homework and spend some time on revision and practice amounting to at least 3 hours per week.

