



# A tradition of quality in education

# **Dubai College: GCSE Courses for September 2019**

# **Contents**

# **Contents**

ARABIC	2
ART AND DESIGN	3
BIOLOGY	4
CHEMISTRY	5
COMPUTER SCIENCE	6
DESIGN and TECHNOLOGY	7
DRAMA	8
ECONOMICS	9
ENGLISH LANGUAGE and ENGLISH LITERATURE	10
FRENCH AND SPANISH	11
GEOGRAPHY	12
HISTORY	13
LATIN	14
MATHEMATICS	15
MUSIC	16
PHYSICAL EDUCATION	17
PHYSICS	18

# **ARABIC**

For further information, please click on the following link: http://qualifications.pearson.com/en/qualifications/edexcel-gcses/arabic-2017.html

The Pearson GCSE 9-1 in Arabic builds on the language skills and knowledge gained at Key Stage 3 and introduces students to a wider range of language structures and vocabulary. Students will learn to recognise these structures and to apply their knowledge of language using different skills.

### The course aims to:

- Develop students' ability to use Arabic effectively for purposes of practical communication in speech and writing
- Form a sound base for the skills, language and attitudes required for further study of Arabic in higher education or employment
- Offer an insight into, and a greater awareness and appreciation of, the culture and civilisations of the Arabic speaking world
- Encourage positive attitudes to the learning of other languages and to their speakers and cultures

Students will be expected to demonstrate progress in the four key language skills of listening, speaking, reading and writing alongside the skill of translation from, and into, Arabic. Tests in these skills will be set and externally marked with each skill forming 25% of the final mark.

For the listening and reading assessments, the majority of contexts are based on the culture and countries where Arabic is spoken. Students may also refer to the culture of the assessed language countries or communities in the speaking and writing papers. Students are therefore exposed to materials relating to Arabic-speaking countries throughout the course.

Students will be expected to be familiar with the main grammatical and syntactical features of Arabic and have the aptitude to learn it. Love for Arabic and a determination and willingness to work hard are essential if real progress is to be made in the four skill areas. The language of the examination will usually be Modern Standard Arabic; grammatical and syntactical construction specific to dialects will not gain credit.

It must be stressed that GCSE Arabic is a demanding course, which will require a consistently high level of work from both native and non-native speakers. Students are encouraged to consult with their Arabic teacher for advice before choosing to take Arabic for further study in GCSE.

# ART AND DESIGN

For further information, please click on the following link:

 $\underline{http://qualifications.pearson.com/content/demo/en/qualifications/edexcel-gcses/art-and-design-2016.html}$ 

GCSE Art and Design is a progression from the lower school art courses. Students who have enjoyed art and who are prepared to work hard to develop their skills and understanding in this subject will find the GCSE course fulfilling, rewarding and fun. They need not feel that they are exceptionally talented artists already, as ability often reveals itself and develops in Year 10. It is important that students are enthusiastic artists and that they are prepared to work hard independently, as well as in class. They should have a desire to create and engage with aesthetics and ideas in the world around them.

During the Year 10 course, students begin to develop one unit of coursework, based on a theme such as 'Food, Glorious Food' or 'Damaged, Discarded and Decayed'. This is designed to introduce or strengthen the range of students' practical and analytical skills across a wide range of media. These will include drawing, painting, photography, printmaking, textiles and sculpture. It is beneficial that students own their own camera and a list of recommended art materials is also provided at the start of the course. The study of the work of other artists, as it relates to their own work, is built into projects. Students will need to be prepared to read about art in general and to document their findings. We also encourage students to visit art galleries and museums as much as possible. The compilation of sketchbooks or 'Journals' is an essential part of the course. From the experimentation in their journals they develop personal and original artworks, which culminate in a painting, print, sculpture, installation, multi-media, digital or mixed media final piece.

# Assessment

A second unit of coursework with a different theme will be produced throughout Year 11. An 'Externally Set Assignment' – the examination – is set in term 2 of Year 11 and is similar to a coursework unit in content. Preparatory studies are done over an eight-week period and a final piece is produced under examination conditions within a ten-hour time limit. All work is then exhibited by students for internal marking, external moderation and an exciting end of year exhibition.

The range of careers available to students who have studied art is vast and diverse. Working in a creative industry is not only rewarding financially, but is also good for the soul. Students who study Art for GCSE and A Level who do not pursue creative careers still benefit from all of the creative and critical thinking, problem solving and confidence building activities.

# **BIOLOGY**

For further information on the course, please click on the following link: <a href="https://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html#tab-Biology">https://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html#tab-Biology</a>

We start the GCSE Biology course in Year 9 (along with GCSE Chemistry and Physics) and complete it over three years.

The course covers the following main topic areas: cells and control, genetics, natural selection and genetic modification, health, disease and the development of medicines, plant structures and their functions, animal coordination, control and homeostasis, exchange and transport in animals, ecosystems and material cycles.

The key ideas specific to the biology content include:

- Life processes depend on molecules whose structure is related to their function
- The fundamental units of living organisms are cells, which may be part of highly adapted structures, including tissues, organs and organ systems, enabling living processes to be performed effectively
- Living organisms may form populations of single species, communities of many species and ecosystems, interacting with each other, with the environment and with humans in many different ways
- Living organisms are interdependent and show adaptations to their environment
- Life on Earth is dependent on photosynthesis in which green plants and algae trap light from the sun to fix carbon dioxide and combine it with hydrogen from water to make organic compounds and oxygen
- Organic compounds are used as fuels in cellular respiration to allow the other chemical reactions necessary for life
- The chemicals in ecosystems are continually cycling through the natural world
- The characteristics of a living organism are influenced by its genome and its interaction with the environment
- Evolution occurs by a process of natural selection and accounts both for biodiversity and how organisms are all related to varying degrees

# **Practical Work**

Practical work is a key element of the course and students will conduct a wide range of experiments. These experiments include eight mandatory core practicals; students will need to use their knowledge and understanding of these practical techniques and procedures in the written assessments.

### Assessment

There are two written examinations and each paper will feature a mixture of different question styles, including multiple-choice questions, short answer questions, calculations and extended open response questions.

### **CHEMISTRY**

For further information on the course, please click on the following link: <a href="https://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html#tab-Chemistry">https://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html#tab-Chemistry</a>

We start the GCSE Chemistry course in Year 9 (along with GCSE Biology and Physics) and complete it over three years.

The course covers the following main topic areas: states of matter and mixtures, chemical changes, extracting metals and equilibria, transition metals, alloys and corrosion, groups in the Periodic Table, rates of reaction and energy changes, fuels and earth science, analysis and organic chemistry.

The key ideas specific to the chemistry content include:

- Matter is composed of tiny particles called atoms and there are about 100 different naturally occurring types of atoms called elements
- These periodic properties can be explained in terms of the atomic structure of the elements
- Atoms bond by either transferring electrons from one atom to another or by sharing electrons
- The shapes of molecules (groups of atoms bonded together) and the way giant structures are arranged is of great importance in terms of the way they behave
- Chemical reactions take place in only three different ways: proton transfer, electron transfer and electron sharing
- Energy is conserved in chemical reactions so can therefore be neither created nor destroyed

# **Practical Work**

Practical work is a key element of the course and students will conduct a wide range of experiments. Included in these experiments are eight mandatory core practicals; students will need to use their knowledge and understanding of these practical techniques and procedures in the written assessments.

### **Assessment**

There are two written examinations and each paper will feature a mixture of different question styles, including multiple-choice questions, short answer questions, calculations and extended open response questions.

### **COMPUTER SCIENCE**

More information about the course can be found by clicking on the following link: <a href="http://www.aqa.org.uk/subjects/computer-science-and-it/gcse/computer-science-8520">http://www.aqa.org.uk/subjects/computer-science-and-it/gcse/computer-science-8520</a>

A high-quality computer science education equips students to use computational thinking and creativity to understand and change the world. Computer Science has deep links with mathematics, science and design and technology and provides insights into both natural and artificial systems.

# **Aims of the Course**

This specification should enable students to:

- Build on their knowledge, understanding and skills established for computing at Key Stage 3
- Understand and apply the fundamental principles and concepts of computer science, including abstraction, decomposition, logic, algorithms and data representation
- Analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs
- Think creatively, innovatively, analytically, logically and critically
- Understand the components that make up digital systems, how they communicate with one another and with other systems
- Understand the impacts of digital technology to the individual and to wider society.
- Apply mathematical skills relevant to computer science

The subject content includes the following: fundamentals of algorithms, programming, fundamentals of data representation, computer systems, fundamentals of computer networks, fundamentals of cyber security, ethical, legal and environmental impacts of digital technology on wider society, including issues of privacy and aspects of software development.

# **Assessment**

There will be two written examinations assessing the subject content through a mix of multiple choice, short-answer and longer-answer questions. The papers will also assess student's practical problem solving and computational thinking skills.

The non-examination assessment will examine students' ability to use the knowledge and skills gained through the course to solve a practical programming problem. Students will be expected to follow a systematic approach to problem solving. The task involves the development of a computer programme along with the computer programming code itself which has been designed, written and tested by a student to solve a problem. Students will produce an original report outlining this development.

# **DESIGN and TECHNOLOGY**

For further information, please click on the following link: http://www.aga.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552

This course introduces students to the world of product design through the use of resistant materials, emerging technologies and a variety of both traditional and modern manufacturing techniques. The GCSE provides an ideal foundation for A Level as well as related career fields such as mechanical engineering, product design, industrial design, interior design, architecture, graphic design and an array of problem solving and practical skills for everyday living.

In the first two terms, students will acquire a wide range of technical knowledge and skills in the areas of designing and making. During terms four and five of the course, these skills will be applied to the design of an innovative product created by the student. This non-examined assessment task provides an opportunity for students to transform ideas into reality through creative thinking and effective design methodology. The third term in Year 10 provides a practical approach to understanding technological principles in readiness for the internal examination in May, as well as preparing students for the design of their innovative product in Year 11.

# **Designing**

Designing activities deal with a range of manual layout, sketching and drawing techniques as well as extensive use of ICT systems using digital design, a range of desktop publishing software. Modelling and prototyping are achieved through the use of computer aided design (CAD) software programmes, such as Corel Draw and Pro-desktop; these provide a thorough grounding for any future use of professional graphics software in the fields of design, engineering or architecture.

# **Making**

Students acquire and apply a range of knowledge covering materials technology, workshop equipment and manufacturing processes, whilst manufacturing capability is achieved through applying this knowledge in a 'hands on' manner in the workshop. A range of hand tools, electrical equipment and machinery are used to manufacture products, whilst computer aided manufacture (CAM) is achieved through the use of laser cutters, a 3D router and a 3D printer, driven by the array of STL files that the students have generated in their design work.

# **Assessment**

For the NEA task, students are encouraged to invent an original product with innovative features. This challenges students to achieve the highest possible standards within the time available. To facilitate this approach, there is a strong emphasis on creativity, along with careful planning and the use of effective project management systems (e.g. Gantt charting). A number of interim deadlines are set throughout the controlled assessment period to help students manage their time effectively within the allocated 35 hours of assessment.

In addition to the knowledge required for the designing and making elements of the project, students encounter and utilise a number of commercial and environmental issues. Commercial issues include: analysing commercial products, identifying clients and markets, consumer research, costing, packaging and legislation. Environmental issues include: energy sources and conservation, recycling, 'Green design', new materials (composites, smart materials, sustainability).

# **DRAMA**

For further details of the course, click on the following link: http://www.aqa.org.uk/subjects/drama/gcse/drama-8261

### **Course content**

Candidates following this course will study drama and theatre from exploration through to full-scale performance. The focus at all times will be on depth and quality of reflection, analysis and interpretation, with students developing confidence and creativity through becoming active participants and informed audience members.

### Assessment

Component 1, *Understanding Drama*, is a written examination, accounting for 40% of the GCSE.

Students will be assessed on their subject knowledge and understanding. Questions are made up of both short-answer style options and longer essay based analysis. In preparation for the examination, students will practically explore a set text as an actor, director and designer. They will then adopt these roles in the examination, answering questions on their interpretation and approach. Through this, students will develop an understanding and appreciation of the significance of the social, cultural and historical influences on the development of theatre, integrating theory and practice with an understanding of theatrical practitioners and specialist terminology.

Students will also create a written review of a piece of live theatre, analysing their response as an audience member. There will be a minimum of four compulsory local trips during the GCSE course (including seeing work by our A Level students) so that students experience a range of live theatre to support their performance in this examination.

Component 2, *Devising Drama*, is a practical unit where students experience the process of creating and performing their own piece of theatre. This unit is worth 40% of the Drama GCSE with the majority of the mark coming from a written 'Evidence Log' that documents the creative process and encourages students to reflect on their final performance. Through this process, students will develop a reflective understanding of theatre and performance, exploring how meanings are communicated through their acting, design and directorial decisions. This section is internally marked and sent to the examination board to be moderated.

Component 3, *Texts in Practice*, is a performance based unit that is externally assessed and worth 20% of the GCSE. Students work either individually or with a partner, exploring a script and producing two short extracts for performance. They are examined in their presentation of both extracts: in how they use body language, expression, voice and dramatic form to communicate their character and the narrative to the examiner. This unit enables students to blossom in terms of their confidence and independent critical thinking skills, creatively responding to text in a highly detailed and imaginative way.

# **ECONOMICS (International GCSE)**

For further information, please click on the following link: <a href="http://qualifications.pearson.com/content/demo/en/qualifications/edexcel-international-gcse-and-edexcel-certificates/international-gcse-economics-2017.html">http://qualifications.pearson.com/content/demo/en/qualifications/edexcel-international-gcse-and-edexcel-certificates/international-gcse-economics-2017.html</a>

The qualification will enable students to:

- Develop an understanding of economic concepts and apply these concepts to real-life situations
- Interpret and evaluate economic data in order to make reasoned arguments and informed judgements
- Develop an awareness of economic change and its impact on developing and developed economies
- Understand economic issues, problems and possible solutions that affect mixed economies
- Participate effectively in society as citizens, producers and consumers

As students progress through this course, they are introduced to new ideas and concepts while continuing to use and reinforce previously learned concepts and skills. The course is designed to give students a sound understanding of economics and to develop students' ability to use knowledge, skills and understanding appropriately in the context of individual countries, the global economy, as well as providing opportunities to apply the subject content to local economic circumstances.

There are four main areas of subject content and students have to study all four areas:

# The market system

- The economic problem
- Economic assumptions
- Demand, supply and market equilibrium
- Elasticity
- The mixed economy
- Externalities

# **Business economics**

- Production
- Productivity and division of labour
- Business costs, revenues and profit
- Business competition
- The labour market
- Government intervention

# Government and the economy

- Macroeconomic objectives
- Government policies
- Relationships between objectives and policies

# The Global Economy

- Globalisation
- International trade
- Exchange rates

# **ENGLISH LANGUAGE and ENGLISH LITERATURE (International GCSEs)**

For further information, please click on the following links:

http://qualifications.pearson.com/en/qualifications/edexcel-international-gcses-and-edexcel-certificates/international-gcse-english-language-a-2016.html

http://qualifications.pearson.com/en/qualifications/edexcel-international-gcses-and-edexcel-certificates/international-gcse-english-literature-2016.html

All students will work towards Pearson's International GCSE English Language **and** English Literature qualifications. The Language qualification consists of 60% written examination (non-fiction texts) and 40% imaginative writing and response to poetry and prose (examination) component. The Literature qualification consists of 60% poetry and prose examination, and 40% drama and literary heritage texts (coursework) component.

The International GCSE courses are designed for teaching in international schools but are also the preferred choice for many of the UK's top independent schools. The courses are a continuation of students' work at Key Stage 3. Students will write creatively and analytically, discuss prose, poems and plays and they will evaluate, debate and respond to a variety of literary and media texts.

Studying English will develop students' understanding of the spoken word, their ability to convey meaning through written language and their skills in reading, interpreting and responding to material from a variety of sources.

The qualifications will equip students for A Level study and for entry to university, but also for a successful life: the development of English skills relate to our interactions with others and with the world around us.

Year 10 English Language	Year 11 English Literature
60% written examination paper and 40% written examination	60% written examination paper and 40% poetry coursework
Paper 1 (Reading and writing: 60%) An examination with two sections: Section A – Reading: questions related to a nonfiction text from the <i>Edexcel IGCSE Anthology</i> and to one unseen extract. Section B - Transactional writing: one task, from a choice of two.	Paper 1 (Poetry and prose: 60%) A closed book examination with three sections: Section A - Unseen poetry Section B - Anthology poetry Section C - Modern prose
Paper 2 (Poetry and prose: 40%) Section A -one essay response to poetry or prose texts from the <i>Edexcel IGCSE Anthology</i> . Section B – Imaginative writing; one response from a choice of three.	Paper 3: (Coursework: 40%) Assignment A - Modern drama: one essay response to the studied text. Assignment B - Literary heritage texts: one essay response to the studied text.

# FRENCH AND SPANISH

For further information, please click on the following links:

French: http://www.aqa.org.uk/subjects/languages/gcse/french-8658 Spanish: http://www.aqa.org.uk/subjects/languages/gcse/spanish-8698

All students are expected to study **at least one** modern foreign language to GCSE Level. They may continue with their study of Arabic, French or Spanish and/or begin a course in French or Spanish, **subject to sufficient demand from students** and consultation with Head of Modern Foreign Languages.

The GCSE courses in French and Spanish aim to develop students' confidence and linguistic competence in the skills of listening, speaking, reading and writing. The courses are centred on daily life in France and Spain and build upon the communicative approach to language learning established in the lower school.

Whilst it is accepted that a firm grasp of syntax and structure are essential to achieving the highest grades in languages, students are not purely assessed in formal accuracy. Assessment is based upon their ability to communicate in their chosen language and their ability to understand short pieces of written text and spoken dialogue. They are also assessed on their ability to transfer meaning between English and French or Spanish, and vice versa. The format of the examination offers the opportunity for students of all abilities to demonstrate their skills. They will receive credit for what they can do and will be encouraged to develop their potential to the full.

Students beginning French or Spanish in Year 10 are expected to reach GCSE level at the end of the two year course. This is a viable option for the majority of our students as the language acquisition skills that they have consolidated in Key Stage 3 facilitate their ability to learn a new language at a fast pace. A number of students who have chosen this route have successfully continued through to A Level.

# **Course Content**

Students will study the themes of identity and culture, local, national, international and global areas of interest and current and future study and employment. All assessment is through terminal examination and based on the above themes.

# **GEOGRAPHY**

For further information, please click on the following link: <a href="https://filestore.aga.org.uk/resources/geography/specifications/AQA-8035-SP-2016.PDF">https://filestore.aga.org.uk/resources/geography/specifications/AQA-8035-SP-2016.PDF</a>

Studying Geography gives students an understanding of the physical and social world around us, inspiring them to become global citizens who will be able to make informed and responsible decisions about the environment and its sustainable management. Students will gain a breadth of understanding about parts of the world that appear in the news and the conflicting economic and social needs of communities in a complex and rapidly changing world. Practical fieldwork will bring the subject alive.

Learning Geography will provide students with research skills and practical expertise that will be useful if they follow either science or humanities subjects at A Level. Geography also has direct relevance to many careers such as geology, environmental work, resource management, town planning and land management.

"Geography is the subject which holds the key to our future" - Michael Palin.

#### **Course Content**

- Features of the earth, such as mountains, rivers and seas, and how they were formed
- Knowledge and understanding of current events from the local area to the global
- An understanding and appreciation of the cultures and backgrounds of people from all over the world
- Develop a range of useful skills such as map reading, field work techniques, data collection, ICT and problem solving

The syllabus involves the study of three units and these will be assessed at the end of Year 11 with three written papers.

# Paper1: Living with the physical environment

The Challenge of Natural Hazards Physical landscapes in the UK The Living World

# Paper 2: Challenges in the human environment

Urban Issues and Challenges The Changing Economic World The Challenge of Resource Management

# Paper 3: Geographical applications

Issue Evaluation Fieldwork Geographical skills

### **HISTORY**

For further information, please click on the following link: http://qualifications.pearson.com/en/qualifications/edexcel-gcses/history-2016.html

The course is intended to build on the work completed in the lower school and emphasises variety, with the past investigated across wildly varying time scales and national contexts. The course is divided into **four units**, assessed over **three exam papers** sat at the end of year 11.

# Paper 1: Thematic study and historic environment: Medicine c1250 - present

- Medicine in Medieval England
- The medical renaissance in England
- Medicine in 18th and 19th century Britain
- Medicine in modern Britain
- The British sector of the Western Front, World War One, 1914-18: injuries, treatment and the trenches

The thematic study requires students to understand change and continuity across a long sweep of history.

# Paper 2: British Depth Study: Early Elizabethan England, 1558 - 88

- Queen, government and religion, 1558 69
- Challenges to Elizabeth at home and abroad, 1569 88
- Elizabethan society in the Age of Exploration, 1558 88

The British depth study focuses on a short time span and requires students to understand the complexity of a society and the interplay of different aspects within it.

# Paper 2: Period Study - Superpower Relations and the Cold War, 1941 - 91

- The origins of the Cold War, 1941 58
- Cold War crises, 1958 70
- The end of the Cold War, 1970 91

The period studies focus on time span of at least 50 years and requires students to understand the narrative of substantial developments and issues associated with the period.

# Paper 3: Modern Depth Study - Russia and the Soviet Union, 1917 - 41

- The revolutions of 1917
- The Bolsheviks in power, 1917 24
- Stalin's rise to power and dictatorship, 1924 41
- Economic and social changes, 1924 41

The depth study focuses on a short time span and requires students to understand the complexity of a society or historical situation and the interplay of different aspects within it.

There is an emphasis throughout the course on making the subject material as interesting, challenging and stimulating as possible by means of a wide variety of teaching and learning strategies. The department has a large collection of relevant audio-visual materials and makes full use of ICT as a learning, research and presentation tool. The course is an excellent foundation for further study at A Level and it provides students with a good understanding of the contemporary world. The various historical skills developed in the course such as evaluating evidence, analysing interpretations and substantiating judgments is of benefit in a number of other subject areas.

### **LATIN**

For further information, please click on the following link: <a href="https://www.ocr.org.uk/qualifications/gcse/latin-j282-from-2016/">https://www.ocr.org.uk/qualifications/gcse/latin-j282-from-2016/</a>

# This course does require prior knowledge and will only be open to those students who have studied Latin in Year 9.

The qualification will enable students to:

- Develop a knowledge of vocabulary, grammar and syntax in order to read, understand and interpret Latin
- Develop a knowledge and understanding of ancient literature, values and society through the study of original texts
- Develop insights into the relevance of Latin and of ancient literature and civilisation to our understanding of our modern world of diverse cultures
- Deploy knowledge and understanding of Latin to deepen understanding of English and other languages
- Relate knowledge and understanding of the ancient world to other disciplines
- Develop research and analytical skills to become independent learners and enquirers, equipping them for further study in arts, humanities and sciences

There are three examination papers which students will sit at the end of Year 11:

# **Latin Language**

Students will demonstrate their linguistic competence through the translation and comprehension of unseen Latin passages. There is a prescribed vocabulary list for this paper of approximately 450 words.

### **Prose Literature**

Students will demonstrate knowledge and understanding of ancient literature through studying a set text or texts. In the examination, students will be expected to:

- Translate a short passage of the set text into English
- Recognise and analyse aspects of literary style, characterisation, strength of argument and literary meaning as appropriate to the set text studied, and the impact these might have on the reader
- Make a personal response to the literature

For the prose literature examination in June 2021 we will be studying parts of Caesar's account of his invasion of Britain, Livy's account of Hannibal's march through the Alps with elephants, and Pliny's account of a difficult journey to a province that he has been sent to govern.

### **Verse Literature**

Students will demonstrate knowledge and understanding of ancient literature through studying a set text or texts. The examination will assess a student's ability to analyse, evaluate and respond to the ancient literature. Each set text or group of texts will be between 110 and 120 lines in length. In the examination students will be expected to:

- Translate a short passage of the set text into English.
- Recognise and analyse aspects of literary style, characterisation, strength of argument and literary meaning to the set text studied, and the impact these might have on the reader.
- Make a personal response to the literature.

For the verse literature examination in June 2021 we will be studying sections from Virgil, *Aeneid* Book 2, concerning the fall of Troy.

# **MATHEMATICS**

For further information on the course, please click on the following link: http://www.edexcel.com/gcsemaths2015guide

This course aims to develop fluent knowledge, skills and understanding of mathematical concepts. Students will be required to acquire, select and apply mathematical techniques to solve problems. With an emphasis on problem-solving and mathematical reasoning, students will also need to develop their confidence in reasoning mathematically, making deductions and inferences and drawing conclusions. Students will be expected to interpret and effectively communicate their answers in the context of the question which could be either in a mathematical or non-mathematical context.

# **Assessment requirements**

There are three examination papers, each of which has an equal weighting. Paper 1 is a non-calculator examination, whereas paper 2 and 3 allow the use of the calculator. Paper 2 and 3 are intended to be equivalent to one another and the inclusion of a topic area in one paper will not necessary exclude it from the other.

Currently the top 2 sets of Year 10, which are decided upon at the end of Year 9, complete the GCSE course in Year 10 and the OCR Freestanding Mathematics Qualification in Additional Mathematics at the end of Year 11.

# **Calculators**

Pupils are expected to have a set of mathematical instruments (i.e. compass, protractor). They are also expected to own and be able to use an electronic calculator (Casio brands are recommended and specifically the Casio FX 991EX (Classwiz) as this is a minimum requirement for the A-Level course). The use of a Graphic calculator is allowed at GCSE but not recommended or encouraged.

# **Important Information**

Students wishing to continue Mathematics to A Level should have a grade 8 or 9 at GCSE as this demonstrates that they have the pre-required skills; students obtaining a grade 7 *may* be accepted at the discretion of the Head of Mathematics during the sixth form options confirmation day at the start of Year 12. This final decision will be made following a recommendation from their GCSE teacher, together with consideration of whether they have displayed enthusiasm and an interest in Mathematics throughout the GCSE course and will ultimately cope with the significant step up to A Level.

All students who wish to go on to study Mathematics at A Level need to understand that there is a high correlation between performance over the GCSE course and the ability to cope and perform highly at A Level Mathematics.

Students wishing to study Further Mathematics are required to have a grade 9 at GCSE; students obtaining a grade 8 *will not* be accepted onto the course. Additionally, for those students who have taken GCSE in Year 10, we would expect them to have completed an additional course such as the OCR Additional Mathematics gaining a B grade or better.

#### **MUSIC**

For further information, please click on the following link: <a href="https://qualifications.pearson.com/content/dam/pdf/GCSE/Music/2016/specification/Specification">https://qualifications.pearson.com/content/dam/pdf/GCSE/Music/2016/specification/Specification GCSE L1-L2 in Music.pdf</a>

The GCSE Music course is about listening to, analysing, critically appraising as well as making music. It covers performing, composing and listening using a wide variety of musical styles including pop, rock, classical and jazz. There are opportunities to use music technology. If a student has good all-round basic musical skills and enjoys listening to music and performing either as a soloist or in a group, then this is the course to consider.

This course aims to give students opportunities to:

- Develop their understanding and appreciation of a range of different kinds of music
- Extend their own interests and increase their ability to make judgements about musical quality
- Develop broader life-skills and attributes including critical and creative thinking, aesthetic sensitivity and emotional and cultural development.

# **Course Content**

The three aspects of musical knowledge are performing, composing and appraising. These are related to each other through four areas of study:

# Paper 1: Performing

All students must offer both solo and ensemble performing, lasting 4 minutes in total. The ability to play one instrument or to be able to sing is required at this level. For both performances, students will perform one piece which will be recorded and marked by the teacher. The recording and assessing may take place at any time during the course. It is not necessary for students to have completed any practical examinations, but a performance standard of Grade 2 on any instrument or voice is recommended before starting this course.

# Paper 2: Composing

Students will compose, and submit for assessment, two pieces lasting at least one minute each. One composition will be to a set brief provided by the examination board and one will be a free composition. The compositions will be recorded on CD, marked by the teacher and moderated by an external examiner. Use of technology is encouraged in this paper and will be produced using the Sibelius notation software.

# Paper 3: Appraising

This aspect of the course is assessed through a written paper with questions based on recorded extracts of music. There will also be questions based on familiar works which are covered in lessons and also unfamiliar works, where students must recognise the important musical features of the music. Students will study 8 set works, from four areas of study:

- Instrumental Music (1700-1820)
- Vocal Music
- Music for Stage & Screen
- Fusions

Students are required to identify key musical features from each of the set works and discuss the socio-historical background of the music.

All students taking GCSE Music are also required to take part in a minimum of one extracurricular music activity, per week.

### PHYSICAL EDUCATION

For further information, please click on the following link:

http://qualifications.pearson.com/en/qualifications/edexcel-gcses/physical-education-2016.html

### Content and assessment overview

The course consists of two externally examined papers and two non-examined assessment components.

# **Component 1: Fitness and Body Systems**

- Applied anatomy and physiology
- Movement analysis
- Physical training
- Use of data

The written examination will consist of multiple-choice, short-answer and extended writing questions.

# **Component 2: Health and Performance**

- Health, fitness and well-being
- Sport psychology
- Socio-cultural influences
- Use of data

The written examination will consist of multiple-choice, short-answer and extended writing questions.

# **Component 3: Practical Performance**

- Skills during individual and team activities
- General performance skills

The assessment consists of students completing three physical activities from a set list. One must be a **team** activity and one must be an **individual** activity. The final activity can be a **free** choice.

# **Component 4: Personal Exercise Programme (PEP)**

- Aim and planning analysis
- Carrying out and monitoring the PEP
- Evaluation of the PEP

The assessment consists of students producing a Personal Exercise Programme and requires them to analyse and evaluate their performance.

### **PHYSICS**

For further detailed information on the course, please click on the following link: <a href="https://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html#tab-Physics">https://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html#tab-Physics</a>

We start the GCSE Physics course in Year 9 (along with GCSE Biology and Chemistry) and complete it over three years.

GCSE study in the sciences provides the foundation for understanding the material world. Scientific understanding is changing our lives and is vital to the world's future prosperity. All students should learn essential aspects of the knowledge, methods, processes and uses of science. They should gain appreciation of how the complex and diverse phenomena of the natural world can be described in terms of a small number of key ideas that relate to the sciences and that are both inter-linked and of universal application.

The course covers the following main topic areas: motion and forces, conservation of energy, waves, light and the electromagnetic spectrum, radioactivity, astronomy, electricity and circuits, static electricity, magnetism and the motor effect, electromagnetic induction and particle models.

# **Practical Work**

Practical work is a key element of the course and the students will conduct a wide range of experiments during the course. Included in these experiments are eight mandatory core practical activities; students will need to use their knowledge and understanding of these practical techniques and procedures in the written assessments.

#### Assessment

There are two written examinations and each paper will feature a mixture of different question styles, including multiple-choice questions, short answer questions, calculations and extended open response questions.