

St David's College

— Est. 1965 —

Key Stage 4

2023-2024

Introduction

This booklet contains descriptions of the subjects offered at St David's College at Key Stage 4. It is always difficult to make such an important decision, especially which subjects to give up. To ensure that pupils have the maximum support and flexibility in choosing their subjects, we start our process early in the year. At this stage pupils are asked to start thinking about their choices for September and early within the spring term, they will be asked to make their provisional choices about which Key Stage 4 subjects they wish to take. The results of these will then be used to form the four option blocks from which pupils will make their final decisions later in the spring term. If a pupil changes their mind after making their final decision, they should speak to Mr. Turner (Assistant Head – Academic) directly to discuss the potential move. On return to school in September the pupils will then start their chosen subjects.

The new government education initiatives provide learning pathways for children aged 14 to 19. This has introduced options other than Key Stage 4 into our curriculum. The intention is to offer optional vocational routes to further education, which may suit the learning styles of some pupils. These are predominantly Level 2 BTEC qualifications, which are equivalent to a GCSE and full descriptions of these can be found under the subject headings.

English Language, Mathematics and Science are compulsory at Level 2 and English Literature is recommended to the majority of pupils. There are pathways within Science, Coordinated Science (pupils study all three sciences, this is the equivalent to two GCSE's) and the BTEC Level 2 in Science, which is assessed in a variety of ways including portfolio work and practical assessments.

The other subjects that pupils will also study but will not be formally assessed on include RSE (Relationship Social Education), Physical Education, Outdoor Education and Entrepreneurship.

Pupils should spend the next couple of weeks considering which subjects they would like to take in readiness for selecting their provisional choices that will form the option blocks. When the blocks are published, pupils will then make their final decisions later within the spring term. Additionally, those who have three or more specialist support lessons may need to leave one block empty to provide time for these lessons to be timetabled.

Recommendations

We will always do our best to accommodate pupil choices, although it is not always possible for every pupil's first choices to fit into the option blocks. Therefore, it is recommended the pupils have a reserve choice listed also.

Pupils should:

- Choose a course they will enjoy.
- Choose a course they are interested in.
- Review the subject information on the next few pages carefully.
- Ask the advice of their subject teachers and personal tutors.
- Discuss the process with their family.

Pupils should not:

- Choose a course because their friends have.
- Choose a course because they think it might be easy.
- Make a decision hastily.
- Drop any subject they may want to study in Sixth Form.
- Drop any subject they may require for entry into a particular occupation or course of further study.

Mathematics

Exam Body

Edexcel

Head of Department

Jillian Dolder

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Mathematics is the means of looking at the patterns that make up our world and the intricate and beautiful ways in which they are constructed and realised. Numeracy is the means of making that knowledge useful.

Mathematics contributes to the school curriculum by developing pupils' abilities to calculate; to reason logically, algebraically, and geometrically; to solve problems and to handle data. Mathematics is important for pupils in many other areas of study, particularly Science and Technology.

It is also important in everyday living, in many forms of employment, and in public decision-making. As a subject in its own right, Mathematics presents frequent opportunities for creativity, and can stimulate moments of pleasure and wonder. When a problem is solved for the first time or a more elegant solution to a problem is discovered or when hidden connections suddenly manifest.

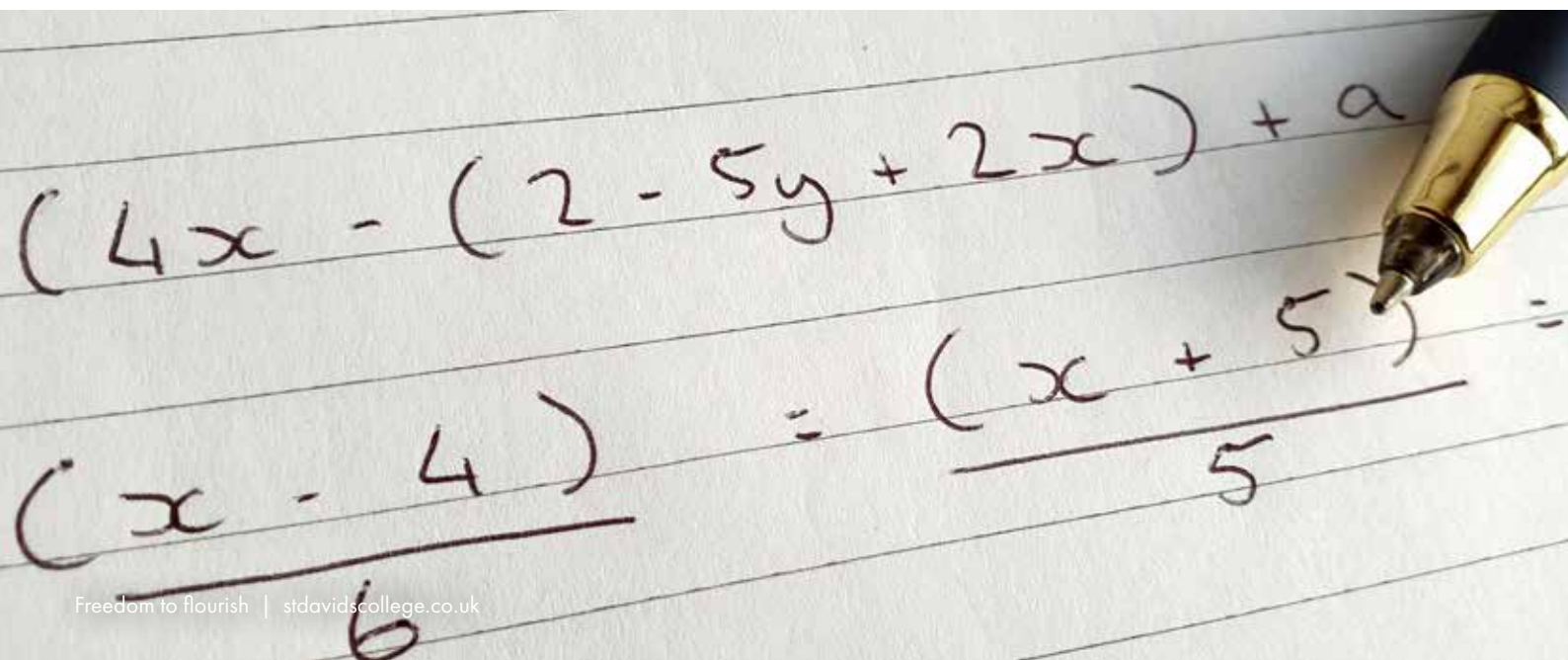
It enables pupils to build a secure framework of mathematical reasoning, which they can use and apply with confidence. The power of mathematical reasoning lies in its use of precise and concise forms of language, symbolism and representation to reveal and explore general relationships. These mathematical forms are widely used for modelling situations, a trend accelerated by computational technologies.

Course Content

The specification we follow consists of three separate units to be sat in the summer of Year 11.

Each paper is offered at either Foundation level (Grades 1 - 5) or Higher (4 - 9)

- All papers are 1 hour 30 minutes in length.
- Calculators are allowed on two of the papers and not allowed on the third.



Business Studies

Exam Body

Pearson (GCSE)

Head of Department

Mark Turner

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The Business Studies syllabus allows pupils to develop their understanding of business activity in the public and private sectors, and the importance of innovation and change. Pupils find out how the major types of business organisation are established, financed and run, and how their activities are regulated. Factors influencing business decision-making are also considered, as are the essential values of cooperation and interdependence.

Entrepreneurship

There are also opportunities to get out of the classroom and into real business environments, to run a mini-business in school and to take part in business competitions such as The Student Investor Challenge and The Tenner Challenge. This is an excellent area of study for cementing skills and complementing research and evaluation techniques in other subject areas. It also provides a platform in developing a sound business understanding to improve employability and prepare for further study within the subject.

Areas of study

- Enterprise and entrepreneurship.
- Spotting a business opportunity.
- Putting a business idea into practice.
- Making the business effective.
- Understanding external influences on business.
- Growing the business.
- Making marketing decisions.
- Making operational decisions.
- Making financial decisions.
- Making human resource decisions.

Assessment

- Written Paper 1 - 50% (1 hour 30 minutes)
- Written Paper 2 - 50% (1 hour 30 minutes)

Both papers are divided into three sections and consist of calculations, multiple-choice, short-answer and extended-writing questions. Calculators may also be used in the examination and each paper has a total of 90 marks available.



Sport

Exam Body

Pearson (BTEC level 2)

Head of Department

Dan Lycett

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Course Outline: A two-year course assessed by both internal assignments (3 units) and external examinations via an online test (1 unit).

What will be covered?

Unit 1: External examination unit (On-screen) taken June Year 10 1-hour test; 50 marks in total; mixture of objective and short mark questions.

Unit 2: Practical sports performance (internally assessed)

- Pupils take part in a variety of activities of which two will be selected.
- Produce a log book to demonstrate knowledge of rules and areas they have improved on in those sports.

Unit 3: The Mind and Sports Performance

- Investigate personality and its effects on sports performance.
- Explore the influence that motivation and self-confidence have on sports performance.
- Know about arousal and anxiety, and the effects they have on sports performance.

Unit 5: Training for personal fitness (internally assessed)

- Design and take part in a personal fitness plan.
- Pupils will need to improve their fitness over the course.
- Be able to safely exercise and advise others on how to do this.

Assessment

Pupils will be assessed continually for the internally assessed units through a mixture of written reports, video evidencing and presentations that the pupil gives. Year 10 Options pupils will be assessed against are level 1 Pass, level 2 Merit, level 2 Distinction and level 2 Distinction* (all equivalent to GCSE grading).

Unit 6: Leading Sports Activities (internally assessed)

- Understand about the specific roles and responsibilities of a sports leader.
- Plan and deliver their own sports session.
- Be able to review and look to develop their leading ability.



Music

Exam Body

Pearson (GCSE)

Head of Department

Mrs. Jennifer Appleton

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This is a practically based course for pupils keen on continuing their musical studies, and leads on to the BTEC level 3 qualifications in Music. The successful candidate will achieve the BTEC Level 2 First Award in Music, which is equivalent to 1 GCSE, grades A*-C. This is essentially a practical course, and pupils will make extensive use of the Recording Studio, and will be required to perform in front of others. Pupils must be able to play an instrument or sing, and be prepared to take lessons.

Qualification aims and objectives

- engage actively in the process of music study
- develop performing skills individually & in groups
- communicate musically with fluency and control of the resources used
- develop composing skills to organise musical ideas and make use of appropriate resources
- recognise links between the integrated activities of performing, composing and appraising and how this informs the development of music
- broaden musical experience and interests, develop imagination and foster creativity
- develop knowledge, understanding and skills needed to communicate effectively as musicians
- develop awareness of a variety of instruments, styles and approaches to performing and composing
- develop awareness of music technologies and their use in the creation and presentation of music
- recognise contrasting genres, styles and traditions of music, and develop some awareness of musical chronology
- develop as effective and independent learners with enquiring minds
- reflect on and evaluate their own and others' music
- engage with and appreciate the diverse heritage of music, in order to promote personal, social, intellectual and cultural development.



Performing Arts

Exam Body

Pearson (BTEC Level 2)

Head of Department

Jenny Appleton

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The Pearson BTEC Level 1/Level 2 First Award in Performing Arts is designed to provide an engaging and stimulating introduction to the world of performing arts. The qualification builds on learning from Key Stage 3 for those who wish to explore a vocational route throughout Key Stage 4.

It has been developed to:

- encourage personal development through practical participation and performance in a range of performing arts disciplines.
- give pupils a wider understanding and appreciation of performing arts through defined pathways.
- give pupils the opportunity to develop a range of skills, techniques and personal attributes essential for successful performance in working life.

The qualification also provides opportunities for pupils to focus on the development of personal, learning and thinking skills, within a performing arts context.

Employers value employees who can communicate effectively both verbally and using electronic communication methods. This qualification provides opportunities for pupils to develop their communication skills as they progress through the course.

Course content

Pupils will study three units over the two years. Two units are compulsory core units and the third is chosen from one of the optional specialist units, as seen in the chart below.

This award, therefore, offers a choice of pathways, which provide programmes of study to suit individual needs.

Pathways that are available here at St. David's are:

- Acting
- Dance
- Production
- Musical Theatre

Unit	Core units	Assessment method	GLH
1	Individual Showcase	External	30
2	Preparation, Performance and Productions	Internal	30
3	Acting Skills	Internal	60
4	Dance Skills	Internal	60
5	Musical Theatre Skills	Internal	60
6	Music Performance Skills	Internal	60
7	Production Skills for Performance	Internal	60





Assessment approach

The Pearson BTEC Level 1/Level 2 First Award in Performing Arts includes one externally assessed unit in the core to introduce externality into vocational programmes of study.

The assessment approach for the internally assessed units in the qualification structure enables pupils to receive feedback on their progress throughout the course as they provide evidence towards meeting the unit assessment criteria.

Evidence for assessment may be generated through a range of activities, including practical performance; such as the school musical production. As this is performed at one of our local theatres the assignment experience provides for a more realistic and motivating basis for learning and can start to ensure learning serves the needs of local areas.

Pupils will be encouraged to take responsibility for their own learning and achievement, taking account of the industry standards for behaviour and performance.

What Next?

The Pearson BTEC Level 1/Level 2 First Award in Performing Arts provides a good foundation for further study within the sector through progression on to qualifications, such as BTEC Nationals, specifically the Pearson BTEC Level 3 in Performing Arts.

From the knowledge and skills developed in this qualification pupils may also expect to seek employment at a junior level working with companies in the performing arts and related sectors in a range of roles, including; stage management, production and set design; and related administration and technical roles.



English Language

Exam Body

Edexcel

Head of Department

Jennifer Turner

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English Language is a compulsory subject which aims to improve speaking, listening, reading and writing. There is a single tier entry which leads to iGCSE grades 9 to 1.

There is one unit for examination and two written coursework units which examine pupils' ability to write analytically and creatively. It is anticipated that the majority of coursework will be completed in Year 10.

Assessment

Exam (60%)

One 2-hour 15-minute paper divided as follows:

Reading:

- Unprepared passage
- Section A of the Edexcel Anthology
- One comparison question

Writing:

- Transactional writing
- To inform, explain, describe

Coursework (60%)

Two coursework assignments:

1. Analytical essay exploring a topic in two texts and a short commentary
2. Personal and imaginative writing piece.



English Literature

Exam Body

Edexcel

Head of Department

Jennifer Turner

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English Literature is an integral part of the English Language course, but many pupils may take the English Literature exam as well, leading to an additional iGCSE award. There is a single tier of entry which leads to grades 9-1. The English Literature iGCSE is 60% exam and 40% coursework, with pupils sitting one paper at the end of Year 11.

The course is an excellent taster for English Literature A Level and for anyone with an interest in reading, the theatre and films.

Assessment

Exam (60%)

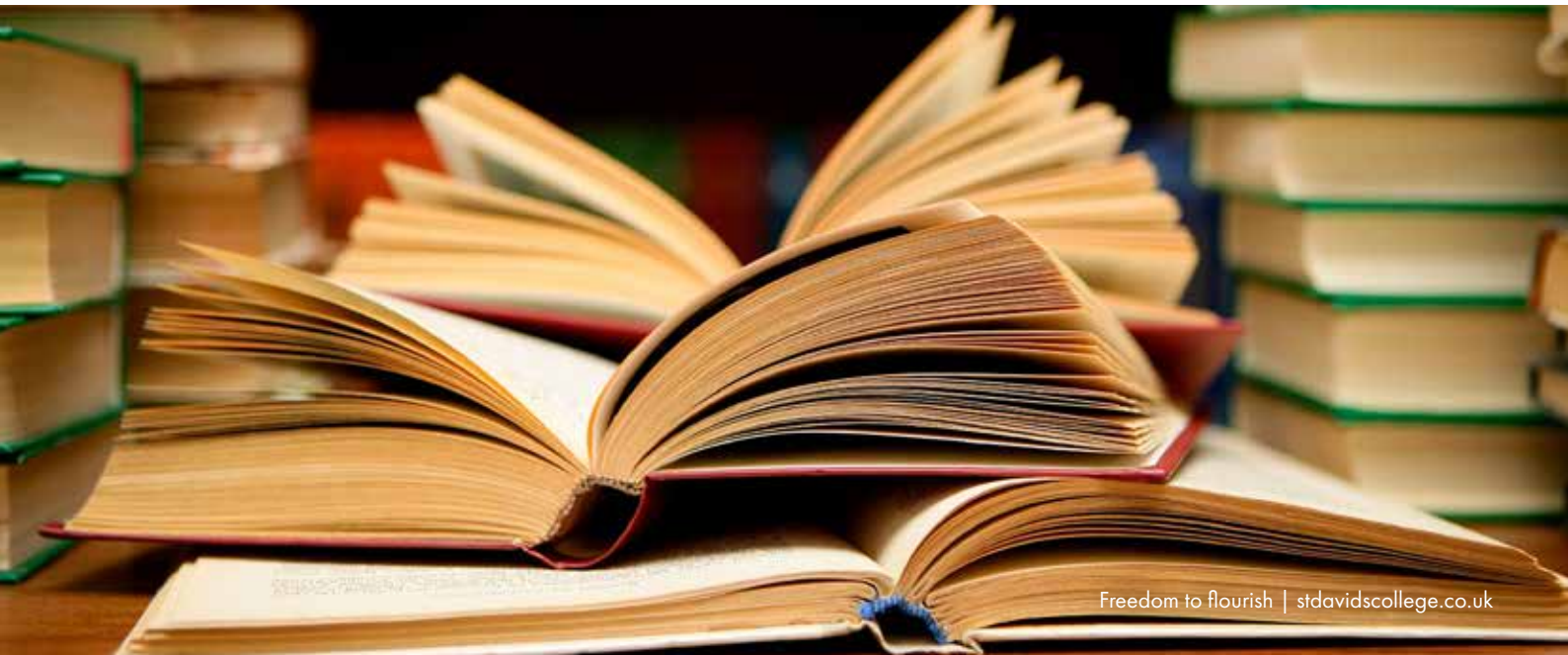
Section A: Poetry

- Question on an unprepared poem
- One comparative question on texts previously studied in class from Part 3 of the Edexcel Anthology (Choice of two questions.)

Coursework (40%)

Modern Drama

- One essay on a drama text studied in class (An Inspector Calls)Prose
- One essay on a Literary Heritage text studied in class (Romeo and Juliet).



Spanish

Exam Body

Edexcel (IGCSE)

Head of Department

Paula Roberts

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Second languages are extremely useful. It well known that young people who have studied a language are among the most employable. Not only for their language knowledge but also for the communication skills and cultural knowledge they have acquired. Linguists also develop many transferable skills such as logic, reasoning and creative thinking.

Why take a language?

- It's a multilingual world - not everyone speaks English. 75% of the world does not speak English at all.
- A little language can make a lot of difference. More jobs than you can imagine need language skills. A language will give you the edge in the job market. In fact, many businesses are choosing to employ graduates from other European countries over British graduates due to their enhanced language skills.
- Languages improve the quality of your life and your understanding of how other people live and think.
- You can travel more and meet new people. Travelling and meeting people from other countries is made easier by showing your understanding of a second European language.

Course Content

St David's College offers Spanish as a second language for International GCSE.

What does an iGCSE consist of?

- 25% Listening paper (35-45 minutes)
- 50% Reading and Writing paper (90 minutes)
- 25% Speaking exam (10 minutes with your teacher) Non-exam

assessment: Approx 60 hours



Welsh (2nd language)

Exam Body

WJEC

Head of Department

Glenys Milner-Hughes

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GCSE Welsh Second Language is a qualification that will develop candidates' interest and knowledge of Wales and promote an enthusiasm for the Welsh language. The aim is to instil confidence and the ability to communicate effectively in Welsh.

In addition, pupils will develop essential skills by undertaking practical tasks, which fulfil the needs of candidates, employers and further education centres. Our aims are to use the language practically in its spoken form and in reading and writing; equipping pupils for life in our bilingual society of the twenty first century.

It should be noted that many professions and courses in Wales require a certain level of Welsh which can be demonstrated by the successful completion of this course.

Please note that this course cannot be taken for those students for whom Welsh is their first language (i.e. the language spoken predominantly at home).

Assessment

Unit 1 (25%)

Oracy response to visual stimulus

- Non-examination assessment :
6 – 8 minutes (pair)
8 – 10 minutes (group of three)

Unit 2 (25%)

Communicating with other people

- Non-examination assessment :
6 – 8 minutes (pair)
8 – 10 minutes (group of three)

Unit 3 (25%)

Narrative, specific and instructional

- Written examination: 1 hour 30 minutes

Unit 4 (25%)

Descriptive, creative and imaginative

- Written examination: 1 hour 30 minutes



Geography

Exam Body

Eduqas

Head of Department

Matthew Roberts

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The GCSE Geography specification ensures pupils achieve the following objectives; they will develop the ability to think:

- creatively, for example, by posing questions that relate to geographical processes and concepts;
- scientifically by collecting and recording appropriate evidence from a range of sources, including fieldwork;
- independently by applying geographical knowledge, understanding, skills and approaches appropriately and creatively to real world contexts.

The specification will allow for pupils to broaden their general Geographical knowledge whilst gaining a solid grasp of local, national and international issues. It will also prepare all pupils to continue with this successful subject into A level.

Assessment

Paper 1

In Paper 1 which contributes 35% and is 1 hr 30mins in length, the contents and themes will be:

- A. Landscape and physical processes
- B. Rural-Urban links
- C. Tectonic landscapes and hazards

Paper 2

In Paper 2, where the contents will be studied during year 11, again this contributes 35% and is 1 hr 30mins in length, the contents and themes will be:

- A. Weather, climate and ecosystems
- B. Development and resource issues
- C. Social development

Paper 3

Paper 3 will contribute 30% and is 1 hr 30mins in length. The paper will assess the pupils' knowledge and use of fieldwork data and will be in three parts.



History

Exam Body

AQA

Head of Department

Sian Mulvihill

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Paper 1:

America 1840-1895: Expansion and consolidation

Pupils will study the development of America during a turbulent half century of change. It was a period of expansion in the West and consolidation of the United States as a nation. The course will cover the political, economic, social, and cultural aspects of these developments and the role ideas played in bringing about change. They will also look at key individuals and groups in shaping change and the impact developments had on them.

Conflict and tension 1894-1918

This wider world depth study enables pupils to understand the complex and diverse interests of the Great Powers and other states. It focuses on the causes, nature, and conclusion of the First World War. Pupils will study how and why conflict occurred, and why it proved difficult to bring the war to a conclusion. Pupils will study the role of key individuals and groups in shaping change and how they were affected by and influenced international relations.

Course Content

Paper 1: Understanding the modern world

Paper 2: Shaping the nation

Paper 2:

Britain: Health and the people: c1000 to the present day

This thematic study will enable pupils to gain an understanding of how medicine and public health developed in Britain over a long period of time. It considers the causes, scale, nature and consequences of short and long-term developments, their impact on British society and how they were related to the key features and characteristics of the periods during which they took place. Although the focus of this study is the development of medicine and public health in Britain, it will draw on wider world developments that impacted on the core themes. Pupils will have the opportunity to see how some ideas and events in the wider world affected Britain and will promote the idea that key themes did not develop in isolation, but these ideas and events should be referenced in terms of their effects on the core theme for Britain and British people.

Elizabethan England, c1568-1603

This option allows pupils to study a specified period, the last 35 years of Elizabeth I's reign. The study will focus on major events of Elizabeth I's reign considered from economic, religious, political, social and cultural standpoints, and arising contemporary and historical controversies.

The historic environment of Elizabethan England the historic environment is 10% of the overall course, which equates to approximately 12 hours out of 120 guided learning hours. Pupils will be examined on a specific site in depth. This site will be as specified and will be changed annually. The site will relate to the content of the rest of this depth study. It is intended that study of different historic environments will enrich pupils' understanding of Elizabethan England.



Art & Design

Exam Body

Eduqas

Head of Department

Simon Scarff

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The GCSE course in Art and Design gives our pupils opportunities to express themselves in a myriad of creative ways. The emphasis is upon inspiring personal approaches that develop both the conceptual and technical skills of our pupils. The specification offers a primarily practical course with maximum opportunities for a stimulating experience of creativity and art, craft and design making activities. Pupils will also be encouraged to monitor their own individual progress through self-assessment and there are opportunities too for pupils to study the works of other artists, craftsmen and designers.

Course Structure

In the first two terms of the course, candidates will pursue a general creative approach covering all the syllabus areas (i.e. a Foundation year). In the Summer Term, candidates may continue to pursue a broad multi-disciplinary approach, in either 3D or 2D areas within the department.

Areas of study

- Art, Craft & Design (general/multi-disciplinary).

Assessment

The content is divided into two parts: Coursework and Controlled Test.

1. Coursework Portfolio (60%)

A portfolio of works exploring a range of creative approaches, culminating in a selection of finished works, supported by sketchbooks. Candidates will be encouraged to assess their own performance, effort, attainment, etc. on completion of each aspect of their portfolio.

2. Controlled Test (40%)

A number of themes and tasks will be presented as starting points for a sustained focus study culminating in a ten-hour test. Typically, there will be approximately 6 weeks preparation time to enable this.



Design & Technology - Product Design

Exam Body

WJEC

Head of Department

Martin O'Leary

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The specification enables learners to work creatively when designing and making and apply technical and practical expertise, in order to:

- develop an appreciation of the importance of creativity and innovation to good design practice
- actively engage in the processes of design and technology to develop as effective and independent learners
- understand the key principles of designing and making
- use their knowledge, skills and understanding to make design decisions in order to make a quality prototype
- analyse existing products and produce practical solutions to meet needs, wants and opportunities, recognising their impact on quality of life
- critically analyse links between the principles of good design, existing solutions and technological knowledge
- understand the underlying technical principles within design and technology within their chosen endorsed area, with emphasis on emerging technologies, materials and practices. This specification also gives learners an opportunity to produce extended written responses and demonstrate the quality of their written communication, including appropriate use of punctuation and grammar.

Assessment

Unit 1:

Design and Technology in the 21st Century

Written examination:

2 hours, 50% of qualification

This WJEC GCSE in Design and Technology offers a unique opportunity in the curriculum for learners to identify and solve real problems by designing and making products or systems. Learners will be prepared to participate confidently and successfully in an increasingly technological world; and be aware of, and learn from, wider influences on design and technology, including historical, social/cultural, environmental and economic factors.

Component 2:

Design and make task

Non-exam assessment:

Approximately 35 hours, 50% of qualification

A sustained design and make task, based on contextual challenge set by WJEC, assessing candidates' ability to:

- identify, investigate, analyse and outline design possibilities
- design and make prototypes and evaluate their fitness for purpose.



Engineering -

WJEC Level 1/2 Vocational Award in Engineering

Exam Body

WJEC

Head of Department

Martin O'Leary

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Engineers can have a major impact on our world. Their achievements have improved the quality of our everyday life from buildings and transport to how we enjoy our leisure time. Our society needs products and solutions that work but also meet a wide range of different needs.

What makes an MP3 player work? Can you use computers in engineering? What materials can be used to go into space? These are the types of questions that manufacturers, sales teams, technical teams will often ask engineers to find answers for. This course is a gateway to a career in Engineering. It will provide a grounding in the engineering design process, machinist skills, engineering maintenance, information interpretation, as well as a wide range of other engineering processes and principles.

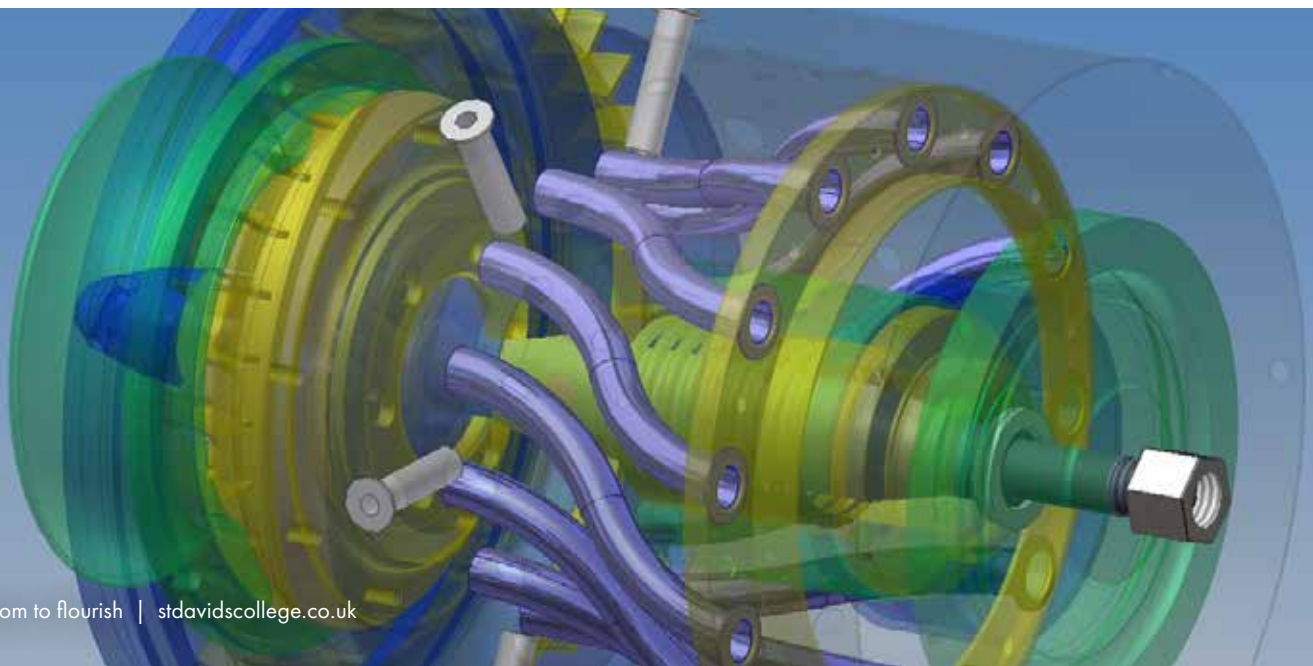
Qualification Structure

Unit Number	Unit Title	Assessment	GLH
1	Engineering design	Internal	30
2	Producing engineering products	Internal	60
3	Solving engineering problems	External	30

Learners will be encouraged to:

- appreciate the importance of creativity and innovation to good design practice
- actively engage in the processes of design and technology to develop as effective and independent learners
- understand the key principles of engineering and engineering processes
- use their knowledge, skills, and understanding to make design decisions
- analyse existing products and produce practical solutions to meet needs, wants and opportunities, recognising their impact on quality of life
- critically analyse links between the principles of good design, existing solutions, and technological knowledge
- understand the underlying technical principles within design and technology within their chosen endorsed area, with emphasis on emerging technologies, materials and practices.

This specification also gives learners an opportunity to produce extended written responses and demonstrate the quality of their written communication, including appropriate use of punctuation and grammar.



Summary of Assessment

Unit 1: Engineering Design

The purpose of this unit is for learners to analyse engineered products in order to propose design solutions to meet requirements. In this unit, you will learn about the design process and how to analyse a product so you can see what features make it work and how it meets certain requirements. You will learn how to take ideas from different products in order to produce a design specification for a product.

Guided Learning Hours: 30
Internal Assessment

Unit 2: Producing Engineering Products

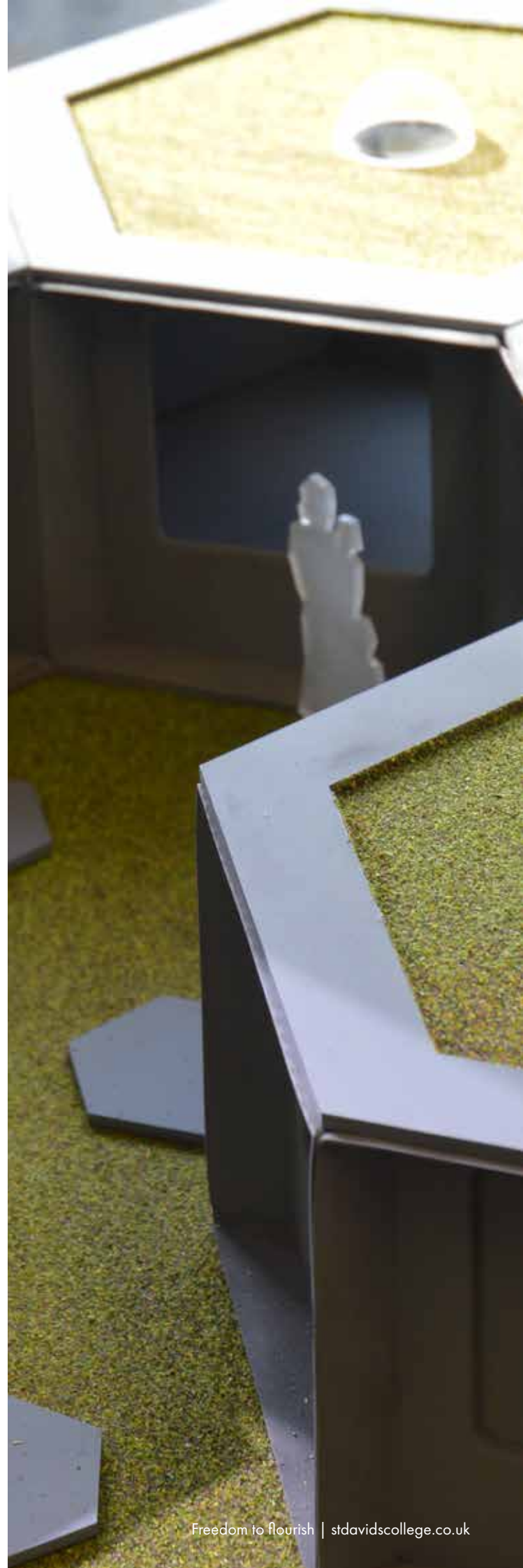
The purpose of this unit is for learners to use skills developed to produce an engineered product. Through this unit, you will learn to interpret different types of engineering information in order to plan how to make engineered products. You will develop the skills needed to work safely with a range of engineering processes, equipment and tools.

Guided Learning Hours: 60
Internal Assessment

Unit 3: Solving Engineering Problems

The purpose of this unit is for learners to use their knowledge and understanding of engineering processes and material properties to solve problems. You will learn about materials, processes and maths that engineers use and how they are used to solve problems. In solving problems, you will learn to follow a process and develop drawing skills to communicate your solutions.

Guided Learning Hours: 30
External Examination: 90 minute Exam



Science (Double Award 9-1)

Exam Body

Edexcel (iGCSE)

Head of Department

Andrew Goodwin

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Pupils on this course will study general science Double award IGCSE worth two GCSE's. They will study aspects of each of the three sciences; Biology, Chemistry and Physics. This course is most commonly chosen and provides pupils with a broad understanding of science and the requirements to study at a higher level. The course allows pupils to learn how science is studied and practiced and become aware that the results of scientific research can have both good and bad effects on individuals, communities and the environment. As well as focusing on the individual sciences, the syllabus enables candidates to better understand the technological world they live in and take an informed interest in science and scientific developments.

By following the course pupils will:

- better understand the technological world, with an informed interest in scientific matters.
- learn to recognise the usefulness (and limitations) of the scientific method and how to apply this to other disciplines in everyday life.
- develop relevant attitudes, such as concern for accuracy and precision, objectivity, integrity, enquiry initiative, and inventiveness.

Assessment

Students will complete one exam paper for each subject composing of a mixture of multichoice, short answer questions and extended open response questions.

Paper 1

Biology 33.3% - 2hr

Paper 2

Chemistry 33.3% - 2hr

Paper 3

Physics 33.3% - 2hr

Students are awarded 2 GCSE's (9-1)

- gain further interest and care for the environment
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community, and the environment
- develop an understanding of the scientific skills essential for both further study at A level and everyday life.

	Biology	Chemistry	Physics
Content: Single and Double Award	<ol style="list-style-type: none">1. The nature and variety of living organisms2. Structure and functions in living organisms3. Reproduction and inheritance4. Ecology and the environment5. Use of biological resources	<ol style="list-style-type: none">1. Principles of chemistry2. Inorganic chemistry3. Physical chemistry4. Organic chemistry	<ol style="list-style-type: none">1. Forces and motion2. Electricity3. Waves4. Energy resources and energy transfer5. Solids, liquids and gases6. Magnetism and electromagnetism7. Radioactivity and particles8. Astrophysics



Triple Award Science

Exam Body

Edexcel (iGCSE)

Head of Department

Andrew Goodwin

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Biology, Chemistry and Physics

This is a demanding course for pupils who have a real interest and motivation towards science. It is best suited for pupils with high target grades. There is a significant volume of content covered over the two years which requires pupils to keep up to date with their classwork and prep work each week. Outstanding attendance, behaviour and effort are also requirements for the course.

The course enables pupils to:

- learn about the basic principles of Biology, Chemistry and Physics through a mix of theoretical and practical work
- develop an understanding of the scientific skills essential for further study at A Level, skills which are useful in everyday life
- better understand the technological world, with an informed interest in scientific matters
- learn to recognise the usefulness (and limitations) of the scientific method and how to apply this to other disciplines in everyday life
- develop relevant attitudes, such as concern for accuracy, objectivity, enquiry initiative and inventiveness
- better understand the influence and limitations placed on

Assessment

Core

Paper 1 – 30% multiple choice

Paper 3 – 50% Theory

Paper 5 or 6 – 20% Practical test or question-based paper

Extended

Paper 2 – 30% multiple choice

Paper 4 – 50% Theory

Paper 5 or 6 – 20% Practical test or question-based paper

scientific study by society, economy, technology, ethics, the community and the environment

	Biology	Chemistry	Physics
Content: Single and Double Award	<ol style="list-style-type: none">1. The nature and variety of living organisms2. Structure and functions in living organisms3. Reproduction and inheritance4. Ecology and the environment5. Use of biological resources	<ol style="list-style-type: none">1. Principles of chemistry2. Inorganic chemistry3. Physical chemistry4. Organic chemistry	<ol style="list-style-type: none">1. Forces and motion2. Electricity3. Waves4. Energy resources and energy transfer5. Solids, liquids, and gases6. Magnetism and electromagnetism7. Radioactivity and particles8. Astrophysics

Applied Science

Exam Body

Pearson (BTEC level 2)

Head of Department

Andrew Goodwin

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The Principles of Applied Science Award has been designed to deliver the Key Stage 4 Programme of Study for science by covering the key scientific principles vital for both scientists and citizens of the future. The qualification is appropriate for learners of all abilities who will benefit from a practical and applied approach to learning in a vocational context. It has been developed to:

- Exemplify scientific principles in vocational contexts, leading to an understanding of how those principles are applied in practice.
- Give learners the opportunity to gain a broad understanding and knowledge of science
- Give learners the opportunity to develop a range of related skills and techniques that are essential for successful performance in working life
- Give opportunities for learners to achieve a nationally recognised level 1 or level 2 science qualification and support progression into a more specialised level 3 vocational or academic course or into an apprenticeship
- Give full-time learners the opportunity to enter potential employment within a wide range of science sectors such as process, industrial, medical, or forensic.

Vocational learning in science is critical to enabling technical roles in the STEM sector to be supported. The qualification is appropriate for learners of all abilities who benefit from a practical and applied approach to learning in a vocational context. From the knowledge and skills developed in this

Assessment

- 1 Principles of Science
External examination
- 2 Chemistry and Our Earth
Internal Assessment
- 3 Energy and Our Universe
Internal Assessment
- 4 Biology and Our Environment
Internal Assessment

qualification, a pupil may expect to seek employment at a junior level working in companies that manufacture pharmaceuticals, computerchip technology materials and food products; or in companies that investigate the causes of disease and help to combat pollution; or with energy companies and those that manufacture products reliant upon energy.



GCSE Computer Science

Exam Body

Pearson Edexcel

Head of Department

Nick Cogger

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This course has been developed in conjunction with the exam board and the computer science community to create an engaging qualification that equips students with the knowledge and practical skills to thrive in the fast-changing world of computer science.

The GCSE Computer Science qualification provides a practical approach to developing computational skills.

This includes innovative, practical on-screen assessment to ensure all students develop the computational skills they need for an exciting digital future beyond the classroom.

Clear and simple structure

This qualification has a straightforward structure with six comprehensive topic areas, assessed through two externally examined papers. One of these is a written paper focused on computational thinking, data, computers, networks, and issues and impact of computing in the world today. The other is a practical on-screen assessment, which focuses on the ability to analyse and solve problems by designing, writing, testing and refining programs.

The qualification's combination of written and practical elements balances theory and practical application, providing students with a rounded experience of computer science.

Assessment

Paper 1:

Principles of Computer Science

(*Paper code: 1CP2/01)

Written examination: 1 hour and 30 minutes

50% of the qualification

75 marks

Paper 2:

Application of Computational Thinking (*Paper

code: 1CP2/02)

Onscreen examination: 2 hours

50% of the qualification

75 marks





St David's College

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