



St David's College

— Est. 1965 —



Key Stage 4
2024-2025

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.

Year 10 Options 2024-2025

Block 1	Block 2	Block 3	Block 4
Art and Design	Geography	Geography	Design Technology
Business Studies	Photography	Business Studies	Sport
History	History	Design Technology	Engineering
Computer Science	Sport	Performing Arts	Economics
		BTEC Sweet	Music

iGCSE 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.

Recommendations

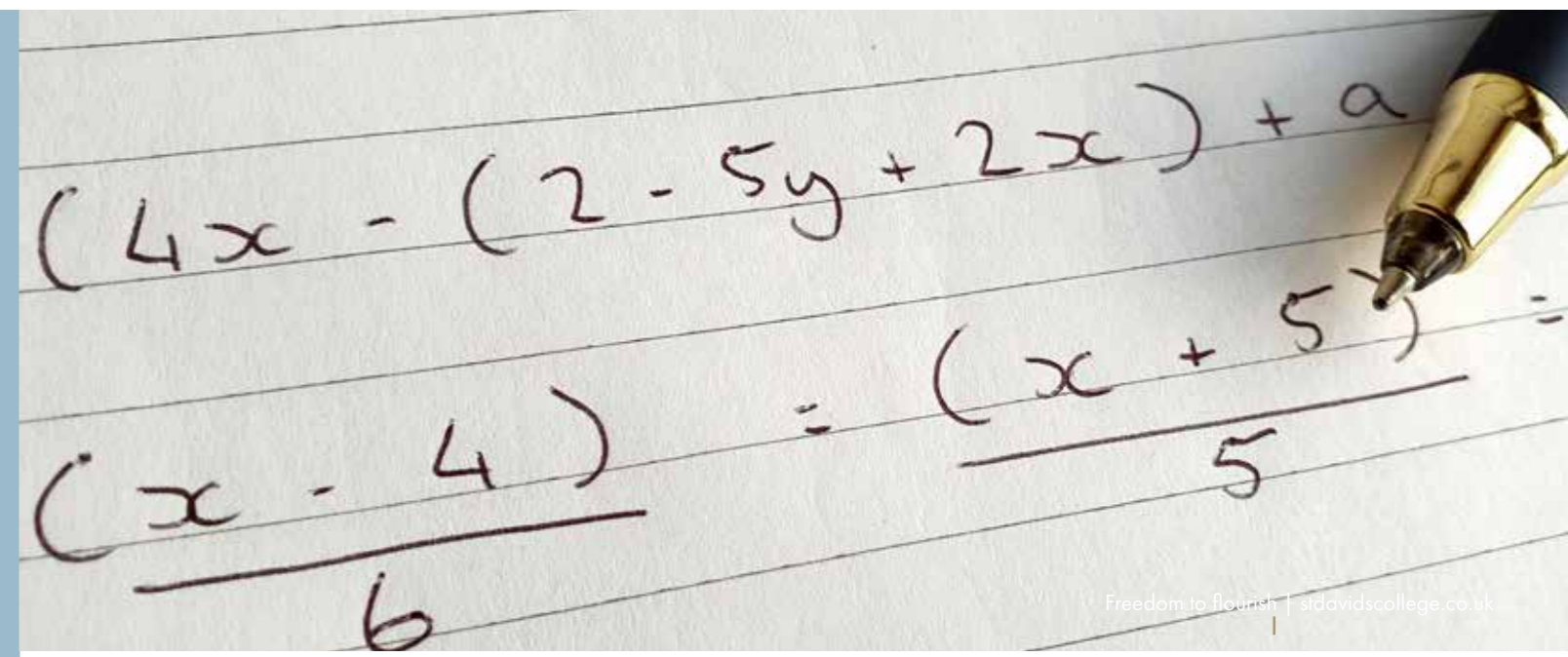
We will always do our best to accommodate pupil choices, although it is not always possible for every pupil's first choices to fit into the option blocks. Therefore, it is recommended that pupils have a reserve choice listed also.

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.



GCSE 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.

GCSE Economics

Exam Body

AQA

Head of Department

Mark Turner

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The GCSE Economics course at St David's College gives pupils the opportunity to develop an understanding of how markets and economies work, giving them an overall awareness and benefit them personally and professionally for years to come.

In our lessons, pupils will have a chance to engage in discussions about current economic issues and, through various tasks and activities, they can nurture their communication, critical thinking, and analytical skills.

By the end of the course, pupils will possess the necessary skills, knowledge, and confidence to pursue further studies or embark on their chosen careers. They will be well-prepared to tackle any future challenges that come their way.

Pupils will look at economic activity through the lens of consumers, producers, government, and the workings of the global economy. Pupils will be given opportunities to focus on real-world issues and reflect on moral, ethical, and sustainable issues that arise as a result of the impact of economic activity.

By applying their economic knowledge and skills, pupils will investigate both national and global economic situations and issues that have emerged in the past 15 years. Additionally, they will gain an understanding of the policies governments have employed in their attempts to address these situations and issues.

Throughout the course, pupils will enhance their quantitative skills, enabling them to analyse economic data and interpret graphs and charts. They will also learn to recognise the potential limitations of both quantitative and qualitative data, fostering a well-rounded perspective.

Assessment

Paper 1: How markets work

Exam 50%

pupils will be expected to draw on knowledge and understanding of the entire course of study to show a deeper understanding of these topics.

- Written exam: 1 hour 45 minutes
- 80 marks

Paper 2: How the economy works

Exam 50%

Students will be expected to draw on knowledge and understanding of the entire course of study to show a deeper understanding of these topics.

- Written exam: 1 hour 45 minutes
- 80 marks



Sports Coaching, Health and Personal Development

Exam Body

Internal, Level 2

Head of Department

Dan Lycett

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What will be covered?

This course aims to explore the possibilities of sport and exercise in modern society, as a vehicle for positive social change, career opportunities, personal and social skills, understanding learning and human development.

This course will be made up of three layers:

Layer one will be undertaken in collaboration with the Open University's free learning platform, OpenLearn. Pupils will be able to choose from a minimum of two Open University level 2 courses per half-term that will support their development of understanding and key skills in relation to the that topic.

Layer two will be an external National Governing Body (NGB) certification. This will be a collection of level 1 and 2 professional certifications that will provide pupils with employability skills and qualification to work with others in a paid and voluntary capacity.

Layer three will be the 'learning to learn' skills module developed by Physical Education staff at St David's College through a combination of learning meetings, self-directed learning and reflection, as well as half-termly learning presentations to industry experts, staff and peers.

Course content

Component 1: performing

Unit 1 - Healthy Body

Unit 2 - Mental Health

Unit 3 - Sports coaching

Unit 4 - Leadership skills

Unit 5 - Analysis and reflection

Unit 6 - Applied Anatomy and physiology in training

Unit 7 - School Action Project

GCSE Music

Exam Body

Pearson (GCSE)

Head of Department

Peter Williams

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This qualification supports pupils in forming personal and meaningful relationships with music through the development of musical knowledge, understanding and skills including performing, composing and appraising. The qualification encourages pupils to engage critically and creatively with a wide range of music and musical contexts, develop an understanding of the place of music in different cultures and contexts, and reflect on how music is used in the expression of personal and collective identities.

This qualification also supports the development of musical fluency and provides access to further study of music at AS and A Level.

Qualification aims and objectives

The aims and objectives of this qualification are to enable pupils to:

- engage actively in the process of music study
- develop performing skills individually and in groups to 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 pupils 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.

Course content

Component 1: performing

- Solo performing
- Ensemble performing
- Approaches to performing

Component 2: Composing

- Developing musical ideas
- Compositional techniques and strategies
- Ensuring technical control and coherence
- Methods of notating composition scores

Component 3: Appraising

- Musical elements, musical contexts and musical language.
- Areas of study:
 - Instrumental Music 1700–1820
 - Vocal Music
 - Music for Stage and Screen
 - Fusions.



BTEC 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 College 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.



iGCSE English Language

Exam Body

Edexcel

Head of Department

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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 examination paper worth 60% of the qualification, as well as two written coursework pieces, which amount to the final 40%.

The qualification aims to enable pupils to:

- read a wide range of texts fluently and with good understanding;
- read critically and use knowledge gained from wide reading to inform and improve their own writing;
- write effectively and coherently using Standard English appropriately;
- use grammar correctly, punctuate and spell accurately;
- acquire and apply a wide vocabulary alongside knowledge and understanding of grammatical terminology, and linguistic conventions for reading and writing;
- listen to and understand spoken language, and use spoken Standard English effectively.

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 (40%)

Two coursework assignments:

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

iGCSE 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 examination 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.

Both the English Language and English Literature iGCSE courses are excellent preparation for anyone interested in pursuing an A Level in English Language and Literature, as well as those with an interest in reading, theatre and film.

Assessment

Exam (60%)

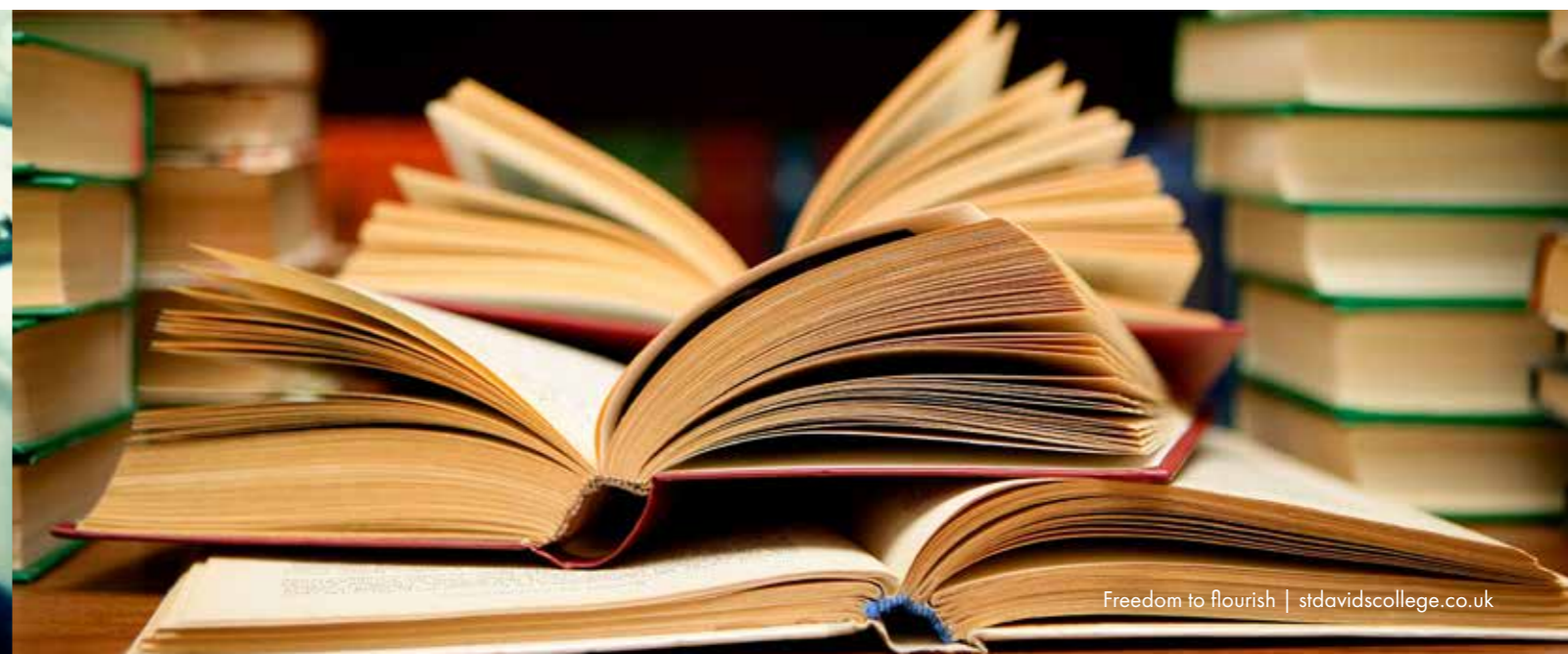
Section A: Poetry

- 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).



GCSE 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 pupils 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

GCSE 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, 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

Matthew Roberts

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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 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.

GCSE Art & Design

Exam Body

WJEC

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.



GCSE Design & Technology

- Product Design

Exam Body

WJEC

Head of Department

Sion Jones

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The specification enables pupils 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 pupils;
- 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 in their chosen endorsed area, with emphasis on emerging technologies, materials and practices. This specification also gives pupils 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 pupils to identify and solve real problems by designing and making products or systems. Pupils 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

Sion Jones

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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.

Pupils will be encouraged to:

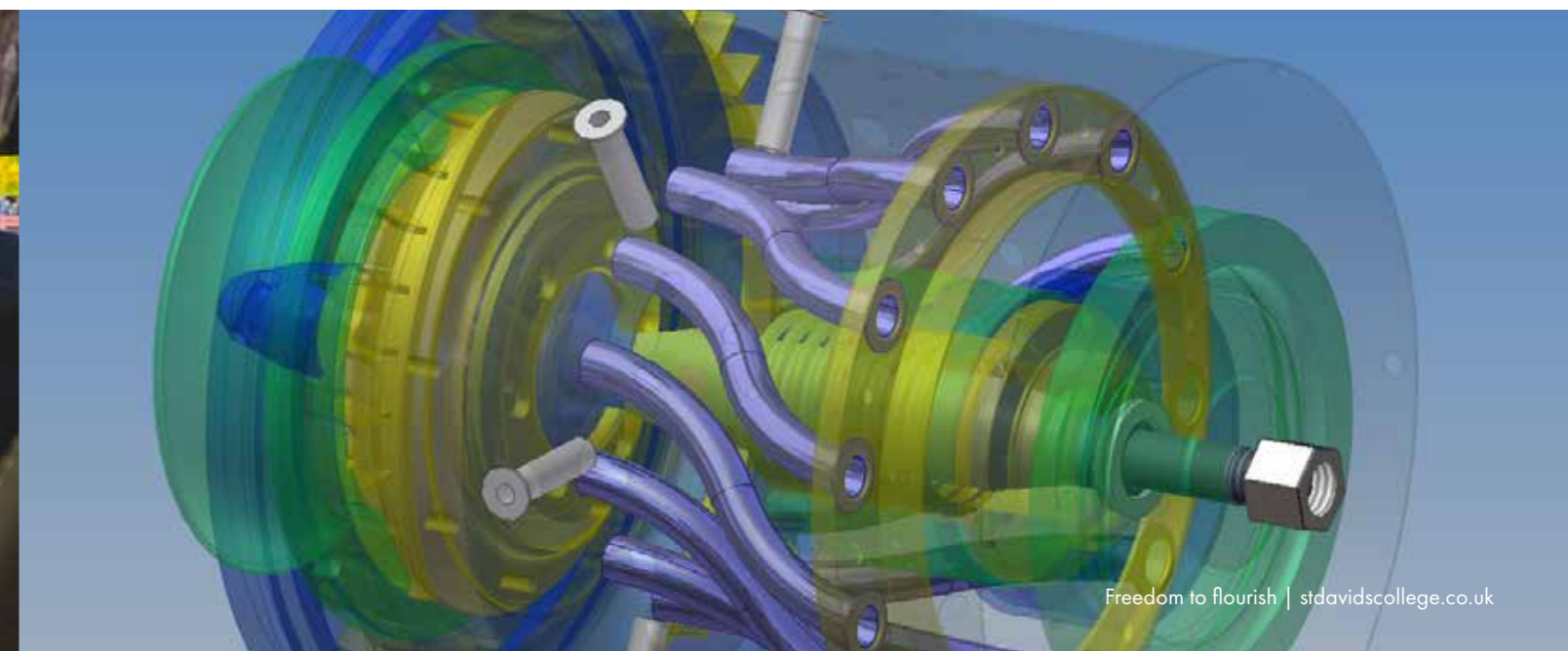
- appreciate the importance of creativity and innovation to good design practice;
- actively engage in the processes of design and technology to develop as effective and independent pupils;
- understand the key principles of engineering and engineering processes;
- use their knowledge, skills, and understanding 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 pupils an opportunity to produce extended written responses and demonstrate the quality of their written communication, including appropriate use of punctuation and grammar.

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

*not available for 2024/25



GCSE Science (Double Award 9-1)

Exam Body

WJEC

Head of Department

Andrew Goodwin

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This WJEC GCSE Science (Double Award) specification provides a broad, coherent, satisfying and worthwhile course of study. It encourages pupils to develop confidence in, and a positive attitude towards, science and to recognise its importance in their own lives and to society.

Studying GCSE Science (Double Award) provides the foundations for understanding the material world. Scientific understanding is changing our lives and is vital to the world's future prosperity, and all pupils will be taught essential aspects of the knowledge, methods, processes and uses of science.

Pupils will learn to appreciate how the complex and diverse phenomena of the natural world can be described in terms of a small number of key ideas relating to the sciences which are both inter-linked, and are of universal application. These key ideas include:

- the use of conceptual models and theories to make sense of the observed diversity of natural phenomena;
- the assumption that every effect has one or more cause;
- that change is driven by differences between different objects and systems when they interact;
- that many such interactions occur over a distance without direct contact;
- that science progresses through a cycle of hypothesis, practical experimentation, observation, theory development and review;
- that quantitative analysis is a central element both of many theories and of scientific methods of inquiry.

Course content

Unit 1 – Biology 1

Cells and movement across membranes
Respiration and the respiratory system in humans
Digestion and the digestive system in humans
Circulatory system in humans
Plants and photosynthesis
Ecosystems and human impact on the environment

Unit 2 – Chemistry 1

The nature of substances and chemical reactions
Atomic structure and the Periodic Table
Water
The ever-changing Earth
Rate of chemical change

Unit 3 – Physics 1

Electric circuits
Generating electricity
Making use of energy
Domestic electricity
Features of waves

Unit 4 – Biology 2

Classification and biodiversity
Cell division and stem cells
DNA and inheritance
Variation and evolution
Response and regulation
Disease, defence and treatment

Unit 5 – Chemistry 2

Bonding, structure and properties
Acids, bases and salts
Metals and their extraction
Chemical reactions and energy
Crude oil, fuels and carbon compounds

Unit 6 – Physics 2

Distance, speed and acceleration
Newton's laws
Work and energy
Stars and planets
Types of radiation
Half-life

Summary of Assessment

Unit 1: Engineering Design

The purpose of this unit is for pupils 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 pupils 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

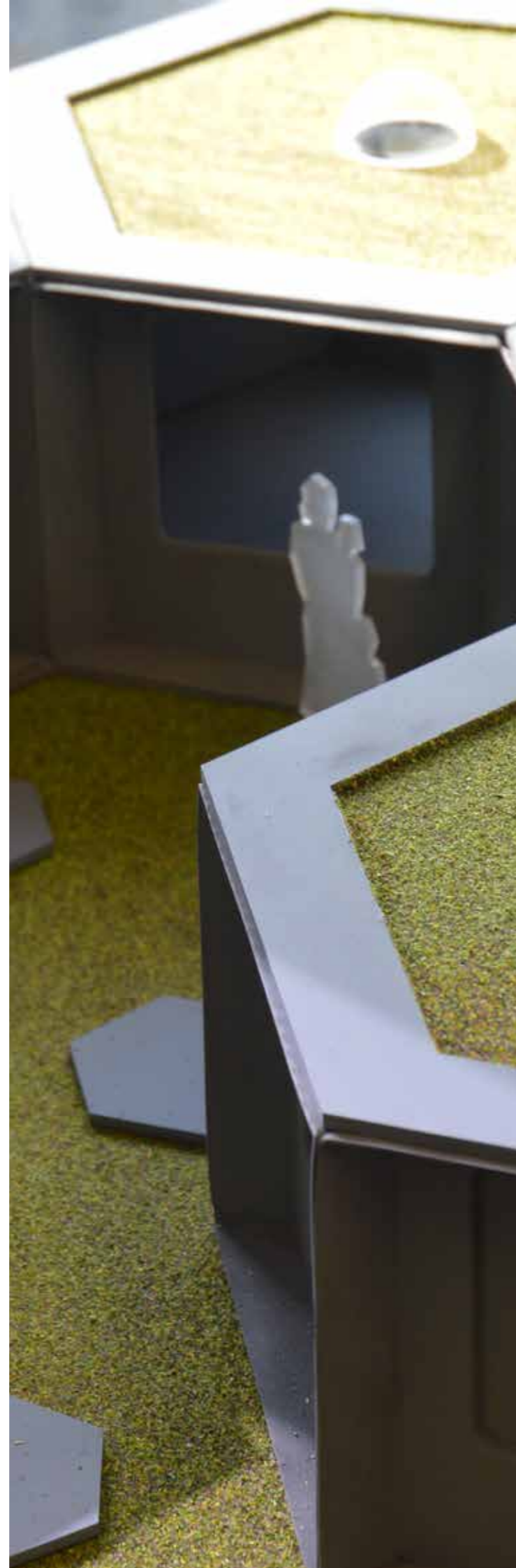
Internal Assessment

Unit 3: Solving Engineering Problems

The purpose of this unit is for pupils 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



GCSE Triple Award Science

Exam Body

WJEC

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

Assessment

Biology

- Unit 1: Cells, Organ Systems and Ecosystems (45%)
- Unit 2: Variation, Homeostasis and Micro-organisms (45%)
- Unit 3: Practical Assessment (10%)

Chemistry

- Unit 1: Chemical Substances, Reactions and Essential Resources (45%)
- Unit 2: Chemical Bonding, Application of Chemical Reactions and Organic Chemistry (45%)
- Unit 3: Practical Assessment (10%)

Physics

- Unit 1: Electricity, Energy and Waves (45%)
- Unit 2: Forces, Space and Radioactivity (45%)
- Unit 3: Practical Assessment (10%)

GCSE Photography

Exam Body

WJEC

Head of Department

Simon Scarff

sscarff@stdavidscollege.co.uk

Photography is defined as the art of capturing still or moving images using light-sensitive materials like photographic film or modern image sensors. It involves a vast array of lens-based media and offers pupils an incredible avenue for personal and professional growth.

Pupils will explore practical, critical, and contextual sources that shape the work of historical and contemporary photographers. These sources will inspire and inform our pupils' own creative responses.

Pupils at St David's College will have access to school equipment and will be able to borrow cameras and other pieces of equipment. They will also have access to some of the more traditional darkroom processes and chemical techniques as well as the "digital darkroom" with the latest software and printers to bring their visions to life.

Pupils studying photography at St David's College will develop a knowledge and skill set that will give them a grounding to prepare them for further study or life as a photographer. Areas of study include:

- Documentary photography
- Photo-journalism
- Studio photography
- Location photography
- Experimental imagery
- Installation
- Moving image: film, video, and animation

Work is not limited to one area of study.

Assessment

Unit 1: Portfolio

60% of the qualification

Unit 1 is internally assessed and externally moderated. It will be marked out of 120: each of the four assessment objectives will be marked out of 30.

Unit 2: Externally Set Assignment

40% of the qualification

Unit 2 is internally assessed and externally moderated. It will be marked out of 80: each of the four assessment objectives will be marked out of 20.

	Biology	Chemistry	Physics
Content: Single and Double Award	1.1 Cells and movement across membranes	1.1 The nature of substances and chemical reactions	1.1 Electric circuits
	1.2 Respiration and the respiratory system in humans	1.2 Atomic structure and the Periodic Table	1.2 Generating electricity
	1.3 Digestion and the digestive system in humans	1.3 Water	1.3 Making use of energy
	1.4 Circulatory system in humans	1.4 The ever-changing Earth	1.4 Domestic electricity
	1.5 Plants and photosynthesis	1.5 Rate of chemical change	1.5 Features of waves
	1.6 Ecosystems, nutrient cycles and human impact on the environment	1.6 Limestone	1.6 The total internal reflection of waves
	2.1 Classification and biodiversity	2.1 Bonding, structure and properties	1.7 Seismic waves
	2.2 Cell division and stem cells	2.2 Acids, bases and salts	1.8 Kinetic theory
	2.3 DNA and inheritance	2.3 Metals and their extraction	1.9 Electromagnetism
	2.4 Variation and evolution	2.4 Chemical reactions and energy	2.1 Distance, speed and acceleration
	2.5 Response and regulation	2.5 Crude oil, fuels and organic chemistry	2.2 Newton's laws
	2.6 Kidneys and homeostasis	2.6 Reversible reactions, industrial processes and important chemicals	2.3 Work and energy
	2.7 Micro-organisms and their applications	3A Obtaining Results	2.4 Further motion concepts
	2.8 Disease, defence and treatment	3B Analysing and Evaluating Results	2.5 Stars and planets
	3A Obtaining Results		2.6 The Universe
	3B Analysing and Evaluating Results		2.7 Types of radiation
		2.8 Half-life	
		2.9 Nuclear decay and nuclear energy	
		3A Obtaining Results	
		3B Analysing and Evaluating Results	



GCSE Computer Science

Exam Body

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 pupils 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 pupils 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 pupils 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

BTEC Sweet

Succeeding With Education, Employment and Training

Head of Department

Gabriella Murphy
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Modules and Structure

Physical Health and Wellbeing

Physical health, nutrition, body shaming and body positivity, the importance of sleep, alcohol, drugs and dealing with medical emergencies.

Emotional Wellbeing

Mental health, wellbeing, and the impact of social media (including discussions around photo editing and apps such as Instagram, Snapchat and TikTok).

Social Health & Wellbeing

Peer pressure, bullying, online relationships, protected characteristics, discrimination and hate crime (including discussions around gender, sexuality, age, race and ethnicity).

Sexual Health & Wellbeing

Sexual health, consent, exploitation, victim blaming, contraception, STIs, pregnancy, LGBT+ issues and violence against women (including an in-depth look into the Sarah Everard case and the 2021 Ofsted review of sexual harassment in schools).

Personal Identity

How our personal identity is shaped and influenced, what makes us unique, how to increase self-esteem, attitudes, beliefs, values and learning how to empathise with others.

Environmental Awareness

Climate change, biodiversity, pollution, carbon footprints, environmental organisations and campaigns, recycling and going plastic free.

Financial Awareness

Financial education, saving money, paying bills, managing a budget, reading payslips, understanding deductions and the dangers of gambling.

Personal Progress

Progression plans, careers, short and long-term goals, SWOT analysis, job applications, CVs, personal statements and interviews.





St David's College

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