



HECKMONDWIKE
GRAMMAR SCHOOL

Nil Sine Labore
Nothing Without
Work



SUBJECTS
BOOKLET

Art & Design

Exam Board: AQA

COURSE CONTENT

YEAR 12

Practical Skills Foundation

At the start of your A Level course, you will undergo an initial programme of tasks designed to develop your practical skills to give you the knowledge and understanding that you need for independent project work later on in the course.

The Study of Other Artists

Integrated within the practical skills will be the study of the work of relevant artists, depending upon the skill being explored at the time. This will involve both practical and written analysis to develop both your practical skills and conceptual understanding of the subject.

Themed Project

Later on in Year 12 you will be asked to demonstrate what you have learnt through undertaking a themed project that covers all of the A Level Assessment Objectives (AOs). This project is intended to prepare you for the demands of the 'Personal Investigation' module in Year 13.

CAREER OPPORTUNITIES

Whether you're designing ships as a naval architect or creating cutting edge art as a fine artist, the one thing that all jobs in this family have in common is creativity. Here are just some of the careers that the study of Art & Design can lead to – animator, architect, ceramic designer, costume designer, fashion designer, fine artist, footwear designer, glassmaker, video-games designer, graphic designer, illustrator, interior designer, jewellery designer, landscape architect, motor vehicle designer, photographer, set designer, web designer.

COURSE CONTENT

YEAR 13

Personal Investigation

This is a 'self-set', independent, personal investigation into an aspect of Art & Design, a technique, a common theme, 'artist' or group of artists. The investigation has its main base in developing your practical understanding but it must also be supported by some accompanying extended writing of between 1000 and 3000 words. The quality of your writing is assessed alongside your practical work.

Externally Set Assignment

This is a project chosen from several titles provided on a question paper from the AQA and is a form of final examination for the A Level. This begins in February in Year 13 and has to be completed by May. You need to build a project around your chosen title that meets the requirements of all of the four AOs. Your project final outcome will be made under examination conditions and within a time limit of 15 hours.

ASSESSMENT

There are four Assessment Objectives. All work falls into one or more of these objectives for assessment purposes.

AO1

Develop ideas through sustained and focussed investigations informed by contextual and other sources, demonstrating analytical and critical understanding.

AO2

Explore and select appropriate resources, media, materials, techniques and processes, reviewing and refining ideas as the work develops.

AO3

Record ideas, observations and insights relevant to intentions, reflecting critically on work and progress.

AO4

Present a personal and meaningful response that realises intentions and where appropriate, makes connections between visual and other elements.

Biology

Exam Board: EDEXCEL

COURSE CONTENT

YEAR 12

Unit 1

Biochemistry

Water, carbohydrates, lipids, proteins, enzymes, DNA, genes, mutations, viruses.

Unit 2

Cells

Eukaryotes, prokaryotes, microscopes, membranes and transport.

Unit 3

Reproduction

Cell cycle, mitosis, meiosis, chromosome mutations, sexual reproduction in mammals, sexual reproduction in plants.

Unit 4

Transport

Gas exchange, circulatory system, heart, blood vessels, haemoglobin, blood clotting, cardiovascular disease, water transport in plants, sugar transport in plants.

Unit 5

Biodiversity

Classification, natural selection, speciation, biodiversity, conservation.

CAREER OPPORTUNITIES

Most of our Biology students go on to study medical-related degrees such as medicine, dentistry, veterinary science, radiography, pharmacology, pharmacy, optometry and various biomedical science courses. Many others follow biology-related degrees such as natural sciences, biology, biochemistry, genetics, ecology, microbiology and zoology. Our students go to universities all over the country and even abroad, and each year we send students to Oxford or Cambridge.

COURSE CONTENT

YEAR 13

Unit 6

Ecology

Fieldwork, statistics, food chains, populations, matter cycles, energy transfer, succession, human effects.

Unit 7

Metabolism

Aerobic and anaerobic respiration, photosynthesis

Unit 8

Microbes and Disease

Microbiological techniques, growth curves, pathogens, antibiotics, malaria, immune system, vaccination.

Unit 9

Control Systems

The nervous system, synapses, drugs, eye, brain, the endocrine system, homeostasis, the kidney, plant responses.

Unit 10

Genetics and Biotechnology

Variation, genetic crosses, genetic drift, Hardy-Weinberg, control of gene expression, stem cells, biotechnology, gene sequencing, GM crops.

ASSESSMENT

Paper 1

1hr 45min written exam on units: 1, 2, 3, 4, 5, 7, 9, 10

90 marks (30% of total A Level)

Paper 2

1hr 45min written exam on units: 1, 2, 3, 4, 5, 6, 8, 10

90 marks (30% of total A Level)

Paper 3

2hr 30min written exam on all 10 units.

120 marks (40% of total A Level)

Business

Exam Board: AQA

COURSE CONTENT

YEAR 12

This is a linear course, and includes the study of a range of businesses from new small start-ups to larger, multinational organisations, as well as considering the external environment and stakeholder perspectives.

Topics in the first year include:

What is business?

- Managers, leadership and decision making
- Decision making to improve marketing performance
- Decision making to improve operational performance
- Decision making to improve financial performance
- Decision making to improve human resource performance.

CAREER OPPORTUNITIES

Business is an absorbing subject with real-life relevance. The subject relates well to the workplace.

Career opportunities include: Accountancy, Banking, Business Management, Business Law, Human Resource Management, the Civil Service and Marketing.

COURSE CONTENT

YEAR 13

The study of strategic decision making should build on the study of decision making in the functional areas covered in year one.

- Analysing the strategic position of a business
- Choosing strategic direction
- Strategic methods: how to pursue strategies
- Managing strategic change.

ASSESSMENT

Paper 1

2hr written exam – Fifteen multiple choice questions, short answer questions and one essay question from a choice of two.

100 marks (33.3% of total A Level)

Paper 2

2hr written exam – Three data response questions, each consisting of three or four part questions.

100 marks (33.3% of total A Level)

Paper 3

2hr written exam – Six questions on one case study.

100 marks (33.3% of total A Level)

Extended Learning

- Stock Market Challenges
- Marketing Competition.

Chemistry

Exam Board: AQA

COURSE CONTENT

YEAR 12

Physical Chemistry

In this section you will study atomic structure, mole calculations, structure and bonding, energetics, kinetics, chemical equilibrium and redox chemistry, together with many key practical skills.

Inorganic Chemistry

This section comprises periodicity alongside trends in Group 2 and Group 7 of the periodic table.

Organic Chemistry

This introduces you to organic chemistry and in particular Alkanes, Alkenes, Alcohols, Halogenoalkanes and organic synthesis.

CAREER OPPORTUNITIES

Chemists are employed in industry, the scientific civil service or in education. Chemistry also provides an opportunity for careers in medicine, veterinary science, dentistry, geology, environmental science and engineering, as well as pharmacy, pharmacology, forensic science, environment and health, dietetics and food science.

Apprenticeships with companies such as EDF are also a future option.

COURSE CONTENT

YEAR 13

Physical Chemistry

Building on the solid foundation in Year 12 you will study rate equations, thermodynamics and equilibrium constants as well as acids and bases and electrochemical cells.

Inorganic Chemistry

This further extends your study of periodicity to include transition metals and the properties of period 3 elements, together with reactions of ions in aqueous solution and catalysis.

Organic Chemistry

This extends your knowledge and understanding of organic chemistry to include optical isomerism, and a range of organic substances including amino acids, polymers, and aromatic compounds, together with more detailed analytical techniques of Nuclear Magnetic Resonance (NMR) and Chromatography.

ASSESSMENT

Paper 1

2hr written exam on Physical and Inorganic Chemistry plus practical skills.

105 marks (35% of total A Level)

Paper 2

2hr written exam on Physical and Organic Chemistry topics plus practical skills.

105 marks (35% of total A Level)

Paper 3

2hr written exam
Any content from the specification and practical skills.

90 marks (30% of total A Level)

Extended Learning

- Cambridge Chemistry Challenge
- Royal Society of Chemistry
- Chemistry Olympiad
- HE+ Extension Activities
- Royal Society of Chemistry
- Young Analyst's Competition.

Computer Science

Exam Board: AQA

COURSE CONTENT

YEAR 12

Data Structures and Algorithms

This section looks at how computers store and use data and how instructions can be written in their most basic form to carry out tasks within the computer.

Computational Theory and Hardware

This section looks at what is happening within the computer including within the circuits when instructions are being processed.

Programming and Problem Solving

This introduction to programming and programming theory, looking at how to structure a program to solve specific tasks and also the importance of problem solving in the process of creating a programmed solution to a problem.

CAREER OPPORTUNITIES

All areas of industry use computers and it is becoming more and more desirable to have the skills that a qualification in Computer Science brings. Computer Science careers include game design, software development, system designs, database administration, encryption specialist. Other careers that you can use Computer Science include scientific research, medicine, engineering, police and security services and many more.

COURSE CONTENT

YEAR 13

Databases and SQL

Databases are a major part of Computer Science and in this you will look at how data is stored and manipulated in large databases.

Data Structures and Algorithms

This further extends your study of data structures and looks at more complex data structures and algorithms used to solve more complex problems.

Programming

This extends your programming from Year 12 and looks at advanced techniques such as object oriented and functional programming. You will be able to demonstrate your problem solving and programming skills in the Non-Exam Assessment unit.

Communications and Networks

This looks at how networks, including the Internet work and how devices communicate with each other.

ASSESSMENT

Paper 1

2hr 30min on screen exam on the fundamentals of programming, data structures and algorithms as well as the theory of computation.

(40% of total A Level)

Paper 2

2hr 30min written exam on computational theory, databases and functional programming.

(40% of total A Level)

Non-Exam Assessment

Assesses student's ability to use the knowledge and skills gained through the course to solve or investigate a practical problem.

(20% of total A Level)

Extended Learning

- British Informatics Olympiad
- Projecteuler.net
- Hackerrank.

Core Mathematics

Exam Board: AQA

Level 3 Mathematical Studies (also known as Core Maths) focuses on using mainly familiar maths in a range of contexts to help prepare students to be competent and confident in using maths in their studies, careers and lives. It provides useful maths skills for students studying courses such as A-level Psychology, Sciences and Geography. Students will learn and apply real-world maths skills.

The qualification will receive UCAS points equivalent to AS level values.

COURSE CONTENT

Compulsory Content

- Analysis of data
- Maths for personal finance
- Estimation
- Critical analysis of given data and models

Optional Content

(we do statistical techniques)

The normal distribution

Probabilities and estimation

Correlation and regression

Exams

Students will sit two 90 minute exams at the end of their course in May of Year 12.

Design Technology

Exam Board: OCR

CAREER OPPORTUNITIES

Product Designer, Engineering, Architecture, Graphic Design, Manufacturing, Advertising/Marketing, Planning, Civil and Structural Design Engineer.

Together with any design-related career or computer aided design course.

COURSE CONTENT

YEAR 12

Students will complete a range of focused practical tasks and projects that will help them to develop the skills, knowledge and technical understanding of the subject.

Students start the year by completing a furniture project that challenges them to design and model a range of prototypes, whilst developing their knowledge and understanding of natural timber and man-made boards.

Following this, students will design and develop a lighting system that incorporates the principles of sustainable living. It's important that students understand the wider impact designers have on the environment.

Alongside practical projects, students study the theory behind Design and Technology, exploring areas such as materials, manufacturing processes and the work of other professional designers.

COURSE CONTENT

YEAR 13

Iterative Design Project

Students design and develop a marketable product of their choice in response to a specific design problem. Students are free to specialise in specific areas (i.e. Engineering, Graphics and Resistant Materials). Previous projects have included a wind tunnel, wakeboarding training aid and a dental sanitising machine. Students complete an E-Portfolio design folder.

Candidates submit evidence of a single, substantial designing and making activity, from one of the focus areas identified above.

Product Design Examination

This is a written paper that consists of two components; Principles of Product Design and Problem Solving in Product Design.

Students will answer questions that cover the technical principles covered during the course.

ASSESSMENT

Iterative Design Project

100 marks – 65hrs

Non-Exam Assessment

(50% of total A Level)

Principles of Product Design

Written Examination – 1½hrs

80 marks (26.7% of total A Level)

Problem Solving in Product Design

Written Examination – 1¾hrs

70 marks (23.3% of total A Level)

Drama & Theatre

Exam Board: EDEXCEL

CAREER OPPORTUNITIES

Career opportunities for students who study A Level Drama and Theatre include: actor, director, designer, playwright, stage management, theatre management, theatrical agent, technician, broadcasting, media presenting, arts/theatre administration, arts journalism, education, drama therapy and scriptwriting. Due to the vast amount of transferable skills the course offers, A Level Drama and Theatre is also useful in careers such as law, teaching, medicine, marketing, sales, youth work and social work.

COURSE CONTENT

YEAR 12

Devising

Using a key extract from a published play and a theatre practitioner influence as your starting point, you will create and perform an original piece of theatre to a specific target audience. You will develop your knowledge and understanding through practical sessions and studying texts/methods.

Theatre Makers in Practice

In Year 12, you will have the opportunity to see at least one piece of live theatre and develop your evaluative skills. You will be introduced to the List A text that will be practically explored for your external examination (Year 13). You will explore the text as theatre makers, including performer and designer considerations.

COURSE CONTENT

YEAR 13

Theatre Makers in Practice

You will be introduced to the List B text that will be practically explored for your external examination. You will explore the text as theatre makers and understand how theatre can be reimagined. You will also attend a second performance of live theatre.

Text in Performance

You will select, rehearse and perform a monologue or duologue to an external examiner. You will also create a group performance of a key extract from a published play.

ASSESSMENT

Component 1

Devising

Internally assessed through a devised performance and a portfolio.

80 marks (40% of total A Level)

Component 2

Text in Performance

Externally assessed through a group performance: worth 36 marks and a monologue/duologue: worth 24 marks.

60 marks (20% of total A Level)

Component 3

2hr 30min written exam

Four extended response questions: Section A: Live Theatre Evaluation Section B: Page to Stage: Realising a Performance Text. Section C: Interpreting a Performance Text.

80 marks (40% of total A Level)

Economics

Exam Board: EDEXCEL

COURSE CONTENT

YEAR 12

Theme 1

Introduction to Markets and Market Failure

This theme focuses on microeconomic concepts. You will develop an understanding of:

- Nature of economics
- How markets work
- Market failure
- Government intervention.

Theme 2

The UK Economy – Performance and Policies

This theme focuses on macroeconomic concepts. You will develop an understanding of:

- Measures of economic performance
- Aggregate demand
- Aggregate supply
- National income
- Economic growth
- Macroeconomic objectives and policy.

CAREER OPPORTUNITIES

A high percentage of Economics graduates enter employment immediately upon graduation, one third of these in the business and finance sectors.

Studying Economics gives you many marketable skills that are applicable to several jobs, such as banking, government ministries, journalism, law, education and industry management.

COURSE CONTENT

YEAR 13

Theme 3

Business Behaviour and the Labour Market

This theme develops the microeconomic concepts introduced in Theme 1 and focuses on business economics.

You will develop an understanding of:

- Business growth
- Business objectives
- Revenues, costs and profits
- Market structures
- Labour market
- Government intervention.

Theme 4

A Global Perspective

This theme develops the macroeconomic concepts introduced in Theme 2 and applies these concepts in a global context. You will develop an understanding of:

- International economics
- Poverty and inequality
- Emerging and developing economies
- The financial sector
- Role of the state in the macroeconomy.

ASSESSMENT

Paper 1

2hr written exam will assess microeconomics and questions will be drawn from Themes 1 and 3.

100 marks (35% of total A Level)

Paper 2

2hr written exam will assess macroeconomics and questions will be drawn from Themes 2 and 4.

100 marks (35% of total A Level)

Paper 3

2hr written exam will assess content across all four themes.

Students are required to apply their knowledge and understanding, make connections and transfer higher-order skills across all four themes.

100 marks (30% of total A Level)

Extended Learning

- Bank of England Target 2.0 Competition
- Stock Market Challenges
- National Essay Competition
- Study Trip to Paris/New York

English Language

Exam Board: AQA

COURSE CONTENT

YEAR 12

Textual Variations and Representations

Language Diversity

In this section you will study the grammar of both spoken and written language and explore a range of texts – including new technology texts such as text messages and tweets! You will have a lot of terminology to learn but once mastered, you will be applying it to your analysis of a range of texts. Language Variation is the other main topic and in this part of the course, you will explore how and why our spoken language changes because of our age, gender, geographical location, ethnicity, occupation and social class. There are two ways we explore these topics: through discursive essays where key issues are evaluated and assessed and through creative responses.

CAREER OPPORTUNITIES

English Language develops good communicative, evaluative and analytical skills so our students go on to study a wide range of courses at University. Linguistics and English Language are popular degrees as well as Journalism and Sports Journalism. We have had students go on to study Primary Teaching, Law, Modern Foreign Languages and Social Sciences. We even have students who go on to study for STEM degrees and who choose English Language at A Level for fun!

COURSE CONTENT

YEAR 13

Language Change

Child Language Acquisition

In this section you will study how children learn to speak, to read and to write from birth to the age of 11. The Language Change topic will build on the technical analysis skills you develop in Year 12, as you will analyse and compare two texts, one of which will be from a different time – either a very modern text or one from any time after 1600. We will explore different attitudes to new developments in the language. We continue our study of how people's language use varies, looking at ethnicity and World English as additional topics. There is a Non-Examined Assessment which is an investigation on a Language topic of individual choice and one Creative piece based on either: the power of persuasion, storytelling or information.

ASSESSMENT

Paper 1

2hr 30min – Language, the Individual and Society.

Analysis and Comparison questions on two texts.

Child Language Development essay.

100 marks (40% of total A Level)

Paper 2

2hr 30min – Language Diversity and Change.

One evaluative essay on diversity or change.

One analytical essay exploring texts which argue a point of view about a language topic.

One directed writing task linked to ideas in the text.

100 marks (40% of total A Level)

Non-Exam Assessment

Two pieces of coursework 3500 words in total.

A Language Investigation (2000 words) A piece of original writing and commentary (1500 words).

(20% of total A Level)

English Literature

Exam Board: AQA

CAREER OPPORTUNITIES

The qualities of thought, understanding, perception and sensitivity which are gained, allied to disciplined yet lively communication skills, are valuable assets for a wide range of future careers or Higher Education courses.

COURSE CONTENT

Paper 1

Love Through the Ages

Section A

Shakespeare: one passage-based question with linked essay (25 marks).

Section B

Unseen poetry: compulsory essay question on two unseen poems (25 marks).

Section C

Comparing texts: one essay question linking two texts. One pre and one post 1900 text including an anthology of love poetry (25 marks).

Paper 2

Texts in shared contexts:

Modern Times: Literature from 1945 - Present Day

COURSE CONTENT

Option 2

Section A

Drama Set Text

Set text. One essay question on set text (25 marks).

Section B

Prose and Poetry Contextual Linking

One question on an unseen extract (25 marks).

And

One essay question linking two set texts (25 marks).

Non-Exam Assessment

Independent critical study; texts across time.

Comparative critical study of two texts, at least one of which must have been written pre-1900.

ASSESSMENT

Paper 1

Written exam – 3 hours

Open book in Section C only

75 marks (40% of total A Level)

Paper 2

Written exam – 2 hours
30 minutes

Open book

75 marks (40% of total A Level)

Non-Exam Assessment

One extended essay (2500 words) and a bibliography.

50 marks (20% of total A Level)

Assessed by teachers

Moderated by AQA

Extended Project Qualification

Exam Board: OCR

Why opt for the EPQ

- Enhanced university application.
- Many universities will make reduced grade offers to students who have successfully completed the EPQ.
- The EPQ is worth UCAS points.
- Development of skills needed for higher education.
- Higher level study skills that can be transferred to other A Level subjects.

Selection

The EPQ is an addition to the A Level provision at Year 12. It is an optional extra and there are a limited number of places. Students apply for a place on the programme through a formal application process and places are awarded based on enthusiasm, work ethic and demonstration of study skills.

COURSE CONTENT

YEAR 12

Accelerated Course

We run a fast track course that begins in June of Year 11 and completes at Christmas of Year 12. Students are expected to complete an online induction and study skills sessions during June and July. They will have regular contact with a supervisor who will help them formulate their ideas in order for them to work on their project over the summer, carrying out research and creating an essay or artefact plan ready to work on during the lessons in September.

Standard Course

This starts in September of Year 12 and completes at Easter. Students wishing to do the standard course must complete the bridging work supplied over the Summer holidays as this forms the foundation of the course.

Lessons are used to explore potential themes for the project and go beyond the A Level curriculum. The format of the lessons is varied and includes lecture, seminar and workshop style sessions. Students are

CAREER OPPORTUNITIES

The Extended Project Qualification is a research based project qualification. It is a level 3 qualification and is equal to half an A Level. Students carry out independent research in order to produce a 5000 word report or create an artefact such as a computer programme, musical composition or experiment.

expected to participate in a variety of activities including debates and presentations.

We work closely with the University of Leeds and students get the opportunity to attend a study day where they can access the university library and online resources.

Prior to handing in their project students present their findings to their supervisor and peers.

ASSESSMENT

Students are assessed in the following areas:

- Managing a research project
- Use of resources
- Developing an idea
- Reviewing the process

The completed project portfolio should include:

- A research based report or production of an artefact.
- The recording of progress and decision making in a production log.
- Evidence of research and source analysis.
- Presenting the project findings to an audience of staff and peers.

French

Exam Board: AQA

CAREER OPPORTUNITIES

Opportunities in industry, commerce, banking, the Diplomatic Service, teaching, journalism, interpreting and translating, linguist, travel and tourism - an A Level in French will give you a distinct advantage.

COURSE CONTENT

YEAR 12

Theme 1

Aspects of French speaking society: current trends.

- The changing nature of family
- The 'cyber-society'
- The place of voluntary work.

Theme 2

Artistic culture in the French-speaking world.

- A culture proud of its heritage
- Contemporary francophone music
- Cinema: the 7th art form.

Essay writing and research-based topic presentation

- Study of a film
- Study of a set text.

COURSE CONTENT

YEAR 13

Theme 3

Aspects of French speaking society: current issues.

- Life for the marginalised
- How criminals are treated
- Positive features of a diverse society.

Theme 4

Aspects of political life in the French-speaking world.

- Teenagers, the right to vote and political commitment
- Demonstrations, strikes – who holds the power?
- Politics and immigration.

Essay writing and research-based topic presentation

- Study of a film
- Study of a set text.

ASSESSMENT

Paper 1

Written Exam: 2hr 30 min

Listening, reading, writing.

Translation into English and the target language.

(50% of total A Level)

Paper 2

Written Exam: 2hr

Essay and grammar.

Questions on set text and film.

(20% of total A Level)

Paper 3

Spoken Exam: 21-23min

Discussion of a sub-theme, based on a stimulus card.

Presentation of an individual research project.

(30% of total A Level)

Geography

Exam Board: AQA

COURSE CONTENT

YEAR 12

Water and Carbon

This section of our specification focuses on the major stores of water and carbon at or near the Earth's surface and the dynamic cyclical relationships associated with them.

Coastal Landscapes

This section explores coasts as a system and how this system is being influenced by a range of factors.

Changing Spaces

This section of our specification focuses on people's engagement with places, their experience of them and the qualities they ascribe to them, all of which are of fundamental importance in their lives.

Contemporary Urban Environments

This section of our specification focuses on urban growth and change which are seemingly ubiquitous processes and present significant environmental and social challenges for humans.

CAREER OPPORTUNITIES

Geography is a broad based academic degree which is well respected by employers. Geography graduates have one of the highest rates of graduate employment. Geographers enter a very wide range of career areas and put simply there is no such thing as a geography job, there are jobs that geographers do. Studying geography provides you with valuable skills and a firm base for life-long learning. Careers with a geography degree:-Journalist, Environmental lawyer, Catastrophe modeller/emergency planner, Landscape architect, Weather forecaster.

COURSE CONTENT

Fieldwork

Students are required to complete 4 days of compulsory fieldwork. These fieldwork days will be used to support the completion of an NEA.

Additionally, students will be invited on a residential visit to the Amalfi Coast, Italy, to explore the local geography and culture.

YEAR 13

Global Systems and Global Governance

This section of our specification focuses on globalisation – the economic, political and social changes associated with technological and other driving forces which have been a key feature of global economy and society in recent decades.

Hazards

This optional section of our specification focuses on the lithosphere and the atmosphere, which intermittently but regularly present natural hazards to human populations.

ASSESSMENT

Component 1

Physical Geography

Written exam: 2hr 30min

120 marks (40% of total A Level)

Component 2

Human Geography

Written exam: 2hr 30min

120 marks (40% of total A Level)

Component 3

Geography Investigation

Students complete an individual investigation which must include data collected in the field.

60 marks (20% of total A Level)

History

Exam Board: EDEXCEL

COURSE CONTENT

YEAR 12

Paper 1

Britain 1625-1701: Conflict, Revolution and Settlement

The quest for political stability
Religion, conflict and dissent.

Social and intellectual change
Economy, trade and empire

Paper 2

Russia in Revolution 1894-1924

The rule of Nicholas II
1894-1905

The end of Romanov rule
1906-1917.

The Provisional Government
and its opponents February
-October 1917

Defending the Bolshevik
revolution October 1917-1924

Coursework

A historical enquiry based on
interpretations: Historians have
disagreed about the causes of
the Russian Revolution (1917).

What is your view about the
cause of the Russian Revolution?

CAREER OPPORTUNITIES

A qualification in History doesn't limit you to a career using History although there are many of these. Other opportunities include: Law; Journalism; Broadcasting; Civil Service; Teaching; Publishing; Personnel work; Banking; Management; Social Work; Insurance; Accountancy.

COURSE CONTENT

YEAR 13

Political Ideas and Concepts

Paper 3

**Civil Rights and Race Relations
in the USA 1850-2009**

Key Themes

The changing geography of civil
rights issues.

The changing portrayal of civil
rights issues in film and fiction.

Aspects in depth

'Free at last' 1865-1877

The triumph of 'Jim Crow'
1883-c1900

The New Deal and race
relations 1933-1941

'I have a dream' 1954-1968

Obama's campaign for the
Presidency 2004-2009

ASSESSMENT

Paper 1

2hr 15min written exam
on Breadth study and
Interpretations.

(30% of total A Level)

Paper 2

1hr 30min written exam on
Depth Study

(20% of total A Level)

Coursework

A historical enquiry based
on interpretations.

(20% of total A Level)

Paper 3

2hr 15min written exam

Aspects in Depth and Breadth.

(30% of total A Level)

Mathematics & Further Mathematics

Exam Board: AQA

COURSE CONTENT

There is no choice over which aspects of A Level Mathematics you will study, this has been predetermined by the exam boards. All students will study some aspects of pure mathematics, statistics and mechanics. Students will also need to be competent with technology, including the use of spreadsheets and the new calculators, as this is a requirement by the exam boards. Technology will permeate the syllabus. Further Mathematicians will study Mechanics and Statistics in greater depth.

Mathematics

A Level to include:

Pure

YEAR 12

Algebra, co-ordinate geometry, polynomials, inequalities, language of mathematics, indices and surds, differentiation, integration, trigonometry, logarithms.

YEAR 13

Differentiation, integration, natural logarithms and exponentials, sequences, functions, proof, numerical solution of equations, binomial expansions, partial fractions, trigonometry, parametric equations, further techniques for integration and differential equations.

Statistics

Exploring data, data presentation, probability, discrete random variables, combinations, the binomial distribution, the normal distribution, hypothesis testing, correlation and regression.

Mechanics

Modelling, vectors, kinematics, Newton's laws of motion, forces, friction, moments and projectiles.

CAREER OPPORTUNITIES

Accountancy, Aerospace and Defence, Automotive, Biosciences, Chemicals, Construction, Consultancies, Education, Environment, Exploration Geophysics, Financial Services, Government, Healthcare, Insurance, IT and Computing, Manufacturing, Media, Metals and Minerals, Operational Research, Pharmaceuticals, Recruitment, Academic Research.

Further Mathematics

A Level to include:

Pure

Proof, complex numbers, graph sketching, matrices, de Moivre's theorem, differential equations, roots of unity, vectors (including 3D), power series, hyperbolic functions (including differentiation and integration), polar co-ordinates.

Applied

Friction, moments, work, energy and power, centres of mass, t-test, chi squared, the normal and the poisson distribution.

Music

Exam Board: EDEXCEL

CAREER OPPORTUNITIES

Ideal preparation for a University Degree, including all Music courses, Performer or Composer (pop, classical, jazz, theatre, etc.), TV/Radio industry, Teaching, (primary and secondary), Military Bandsman (RAF, Marines etc.), Recording and Audio Engineer, Computer Games Industry, Event Management, Arts Administration, Music Therapist, Instrument Manufacture, Journalism, Publishing and Editing.

COURSE CONTENT

YEAR 12

Performing

You will develop as a performer during the year, building on initial performances to learn about repertoire and practice techniques.

Composing

By studying and applying various compositional techniques you will prepare for your free composition.

A variety of styles will be studied, from traditional to pop and film scores to contemporary music.

Appraising

The first part of the year is about building your study skills by undertaking work on a wide variety of music. You will increase your aural awareness and understanding of scores, notation and occasion. The first set works will be studied, including film scores from Batman and Psycho, a movement from a Berlioz Symphony, a piano piece by Debussy and a contemporary jazz piece by Courtney Pine.

COURSE CONTENT

YEAR 13

Performing

You will prepare for your recital performance during the year which you can undertake as many times as you wish after March 1st.

Composing

You will complete your free composition (any style) before studying the techniques composition paper. For this you will complete either a chorale in 4-part harmony, counterpoint, arrangement or a music technology remix.

Appraising

The remaining set works will be studied, including set works from The Beatles, Kate Bush, J.S Bach, Vaughan Williams and extracts from Stravinsky's The Rite of Spring.

ASSESSMENT

Component 1 Performing

Recital Performance of 8min - solo and/or ensemble.

60 marks (30% of total A Level)

Component 2 Composing

Two compositions, one to a set brief and one free composition. Total of 6min combined.

60 marks (30% of total A Level)

Component 3 Appraising

2hr 10min written examination on knowledge and understanding of musical elements, contexts and language. Application of knowledge through the context of six areas of study and affiliated set works.

100 marks (40% of total A Level)

Extended Learning

Concert visits for wider listening. Numerous performance opportunities both in and out of school.

Physical Education

Exam Board: OCR

CAREER OPPORTUNITIES

Sports scientists are involved in all aspects of sports performance from grass roots to elite level. Students may also go on to complete further studies in medical fields such as physiotherapy, sports therapy and dentistry. The course also prepares students for Physical Education teaching at a primary and secondary level. Opportunities exist for work with professional teams, organisations and athletes in a range of sports.

COURSE CONTENT

YEAR 12

Anatomy

- Skeletal, muscular, cardiovascular, respiratory systems
- Muscle fibre types.

Biomechanics

- Newtons laws of motion
- Movement analysis.

Skill acquisition

- Classification of skills
- Transfer/feedback
- Motor programmes
- Theories of learning
- Memory models
- Types of guidance
- Types of practice.

Socio-cultural

- Sport in society
- Historical development of sport
- Case studies of cricket, athletics football and tennis
- Pre and post-industrial development of Sport in Britain
- Public schools.

COURSE CONTENT

YEAR 13

Exercise Physiology

- Energy systems
- Ergogenic aids
- Principles of training
- Environmental effects on the body
- Diet and nutrition
- Injury prevention and rehabilitation.

Biomechanics

- Lever systems
- Motion and movement.

Sports Psychology

- Personality
- Attitudes
- Group dynamics
- Leadership in sport
- Anxiety, motivation, aggression, arousal, social facilitation
- Stress management
- Goal setting.

Socio-cultural

- Modern Olympics
- Ethics and deviance in sport
- Violence in sport
- Drug use, match fixing
- Commercialisation and media Sporting excellence
- Modern technology.

ASSESSMENT

Paper 1

2hr written exam

90 marks (30% of total A Level)

Paper 2

1hr written exam

60 marks (20% of total A Level)

Paper 3

1hr written exam

90 marks (20% of total A Level)

Performance

OR Coaching in One Activity

30 marks (15% of total A Level)

Evaluation and Analysis for Improvement

30 marks (15% of total A Level)

Physics

Exam Board: OCR

COURSE CONTENT

YEAR 12

Foundations of Physics

Making measurements and the nature of quantities, physical quantities and units.

Forces and Motion

Motion, forces in action, work, energy and power, materials, Newton's laws of motion and momentum.

Electrons, Waves and Photons

Charge and current, energy power and resistance, electrical circuits, waves, Quantum Physics.

CAREER OPPORTUNITIES

Physicists are employed in a huge variety of professions and industries, including all branches of manufacturing and engineering, the scientific civil service, education aviation, astronomy, medicine, veterinary science, dentistry, geology, environmental science, as well as forensic science, environment and health. Apprenticeships with companies such as British Aerospace, Rolls-Royce are also an option.

COURSE CONTENT

YEAR 13

Newtonian World and Astrophysics

Thermal physics, Circular motion, Oscillations, Gravitational fields, Astrophysics and cosmology.

Particles and Medical Physics

Capacitors, Electric fields, Electromagnetism, Nuclear and particle physics, Medical imaging

ASSESSMENT

Paper 1

Modelling Physics

2hr 15min written exam on teaching modules 1, 2, 3 and 5.

100 marks

Section A; multiple choice questions, worth 15 marks. Section B short answer and extended response questions.

85 marks (37% of total A Level)

Paper 2

Exploring Physics

2hr 15min written exam on teaching modules 1, 2, 3 and 6.

100 marks

Section A; multiple choice questions, worth 15 marks. Section B short answer and extended response questions.

85 marks (37% of total A Level)

Paper 3

Unified Physics

1hr 30min written exam on all content. Short answer and extended response questions.

70 marks (26% of total A Level)

Practical Endorsement in Physics

Non-Exam Assessment

Reported separately.

Politics

Exam Board: AQA

COURSE CONTENT

YEAR 12

Politics of the UK

This unit focuses on democracy and participation, such as elections and referendums, political parties and pressure groups and the European Union. Students will learn about the development of democracy and the different types of democracies. In addition, they will be required to analyse and evaluate the characteristics of different systems used in parliamentary elections.

Government of the UK

Complementing our unit on participation is this unit which addresses the main elements of UK Government. It includes how the constitution evolved and the main functions and powers of the main branches of the UK government. Students will be expected to analyse the relationships between each of these branches. The main areas of focus are Parliament, the Prime Minister and Cabinet, the judiciary and devolution.

CAREER OPPORTUNITIES

Many students go on to study Politics or a related subject at university; at Heckmondwike Grammar School, we have a strong tradition of students making such a transition. From there you might become a researcher, take part in local politics (we have had a few recent students embark on this path too) or even start on the path to become a future Prime Minister! But there are other job options too; students also go on to become journalists, teachers, civil servants or lawyers.

COURSE CONTENT

YEAR 13

Government and Politics of the USA

Students will study the US Constitution, Congress, the President and the US Supreme Court. In addition, students will examine concepts that are embedded in the Constitution, such as checks and balances and the separation of powers.

They will also learn about the US electoral system including the main characteristics of presidential and congressional elections and campaigns. Key elements of this system are the political parties and pressure groups, and students will analyse and evaluate the role they continue to play.

Comparative politics

Students will need to analyse and explain the similarities and differences between the UK and US systems.

Political ideas

This unit explores liberalism, conservatism, socialism and other ideologies. Students will analyse and evaluate the core values and changing nature of these ideologies and evaluate the influence of key thinkers. We will also apply concepts and debates to contemporary government and politics.

ASSESSMENT

Assessment Paper 1

Politics of the UK

A written exam: 2 hours long
77 marks (33.3% of A-level)

Assessment Paper 2

Politics of the USA and Comparative politics

A written exam: 2 hours long
77 marks (33.3% of A-level)

Assessment Paper 3

Political ideas

A written exam: 2 hours long
77 marks (33.3% of A-level)

Psychology

Exam Board: AQA

COURSE CONTENT

YEAR 12

Approaches in Psychology

In this section you will study the different ways in which Psychologists attempt to explain behaviour.

Research Methods

You will study the methods Psychologists use to investigate behaviour.

Social Influence

You will look at the effect of other people on our behaviour.

Memory

You will study the way our mind stores information, and why we forget things.

Psychopathology

You will consider what it means to be abnormal as well as explanations and treatments for mental disorders.

Attachment

You will discover how and why attachment is so important for our development and the effect it has on our behaviour.

CAREER OPPORTUNITIES

Psychology students can go into a vast array of careers which are both directly and indirectly related to this subject. Typical fields include: Clinical Psychology; Counselling; Educational Psychology; Forensic Psychology; Mental Health Work; Teaching; Health Psychology; Occupational Psychology; Sports Psychology; Policing; Sales and Marketing; Business and Management; Politics; Psychotherapy; Medicine; Healthcare; Dentistry and many more.

COURSE CONTENT

YEAR 13

Issues and Debates in Psychology

You will discover the problems and considerations that affect all psychological study.

Research Methods

You will build on your knowledge of psychological investigations learned in Year 12.

Aggression

This topic looks at the explanations for aggressive behaviour from a range of approaches and contexts.

Biopsychology

You will discover the effects of our biology on our behaviour, including the nervous and endocrine system, and the structure and function of the brain.

Schizophrenia

You will learn about the symptoms, classification and diagnosis, explanations and treatments for this disorder.

Cognition and Development

You will study the ways in which mental processes e.g. thinking, language, memory and perception change throughout the human life span, with a particular focus on the early years.

ASSESSMENT

Paper 1 Introductory Topics in Psychology

2hr written exam on Social Influence, Memory, Attachment and Psychopathology.

96 marks (33.3% of total A Level)

Paper 2 Psychology in Context

2hr written exam on Approaches, Biopsychology, Research Methods.

96 marks (33.3% of total A Level)

Paper 3 Issues and Options in Psychology

2hr written exam on Issues and Debates, Aggression, Schizophrenia, Cognition and Development.

96 marks (33.3% of total A Level)

Extended Learning

We use psychological research on memory and learning to make extended learning have a big impact! Structured activities will help you create revision materials from the moment you begin the course, revisit course content using retrieval practice and space this across the course to build long-term retention.

Enrichment opportunities including the Psychology Society, True Crime Club run in the subject as well as opportunities to conduct your own research, watch psychology films, TED talks and Netflix programmes.

Religious Studies

Exam Board: WJEC Eduqas

COURSE CONTENT

YEAR 12

Component 1

Study of Religion – Islam

The life of Muhammad; the development of Islam; the Hijrah from Mecca to Medina; the Qur'an as a source of wisdom and authority for Muslims. The concept of Allah; Prophets of Allah; the nature and role of angels; what happens after death. The concept of a state governed according to Islamic principles; the challenge to Islam from scientific views; Islamic attitudes towards Pluralism. The role of the masjid in Islam; the role of festivals in shaping religious identity – Ashura, Ramadan and Eid-al-Fitr.

Component 2

Philosophy of Religion

Inductive arguments for the existence of God and challenges to these arguments. The problem evil and suffering and religious responses to it. Religious experiences – nature, mystical and challenges to the authenticity. Religious language – inherent problems, is it meaningless?

Component 3

Religion and Ethics

Ethical thought – divine command theory, virtue theory, ethical egoism. Deontological Ethics – Aquinas' natural law and application of the theory. Teleological Ethics – Fletcher's Situation Ethics and application of the theory. Determinism and Free Will – does free will exist, impact on moral responsibility of humans.

COURSE CONTENT

YEAR 13

Component 1

Study of Religion – Islam

The sources and compilation of the Shari'ah; the role of the Shari'ah and its importance for Muslims; Muslim understandings of Jihad. Living a religious life - prayer; giving; pilgrimage; ethical actions as a framework for Muslim life. The importance of family life for Muslims; the challenges of being a Muslim in Britain today; Western perceptions of Islam. Beliefs and practices distinctive of Shi'a Islam; Sufi philosophical thought and religious experiences; debate about crime and punishment.

Component 2

Philosophy of Religion

Deductive arguments for the existence of God and challenges to these arguments. Religious belief as a product of the human mind; atheism and religious responses. Religious experiences – influence on faith, miracles and contrasting views on miracles. Religious language – symbolic, mythical and part of a language game.

Component 3

Religion and Ethics

Ethical thought- naturalism, intuitionism, emotivism. Deontological Ethics – John Finnis' development, Bernard Hoose's proportionalism and application of the theories. Teleological Ethics – Utilitarianism and application of the theory. Determinism and Free Will – religious concepts, libertarianism and implications.

ASSESSMENT

100 Exam Assessment

Exam Board - Eduqas

Paper 1

Written examination: 2hr

100 marks

Choice of questions answered

Paper 2

Written examination: 2hr

100 marks

Choice of questions answered

Paper 3

Written examination: 2hr

100 marks

Choice of questions answered

Sociology

Exam Board: AQA

COURSE CONTENT

YEAR 12

Education

In this section you will study inequalities and functions of the education system.

Research Methods

You will study the methods Sociologists use to investigate behaviour.

Families and Households

You will study how families have changed over time and across cultures, and the future of the family.

CAREER OPPORTUNITIES

Sociology students can go into a vast array of careers which are both directly and indirectly related to this subject. Typical fields include: Counselling, Educational Studies, Sales and Marketing, Business and Management, Politics, Teaching, Psychotherapy, Medicine, Healthcare, Dentistry, Design and Technology, Computer Science, Tech Industry and many more.

COURSE CONTENT

YEAR 13

Crime and Deviance

You will apply your knowledge of theories from year one to crime and deviance. You will also examine trends in crime and deviance.

Theories and Methods

You will apply your knowledge of theories of education and families from year one to overarching theories of society and also analyse new theories of society.

Beliefs

You will apply your knowledge of the theories in sociology to beliefs in society. You will also study the impact that beliefs have had on wider society including secularisation.

ASSESSMENT

Paper 1

Education with Theory and Methods

2hr written exam on Education, Theory and Methods in Context.

80 marks (33.3% of total A Level).

Paper 2

Topics in Sociology

2hr written exam on Families and Households and Beliefs in Society.

80 marks (33.3% of total A Level).

Paper 3

Crime and Deviance with Theory and Methods

2hr written exam on Crime and Deviance and Theory and Methods.

80 marks (33.3% of total A Level).

Extended Learning

We use psychological research on memory, learning and analysis of GCSE, A Level and HE results to make extended learning have a big impact! Structured activities will help you create revision materials from the moment you begin the course, revisit course content using retrieval practice and space this across the course to build long-term retention.

You will be guided to news articles, books and TED talks that show the impact of the sociology you are learning in the real world.

Spanish

Exam Board: AQA

CAREER OPPORTUNITIES

Opportunities in industry, commerce, banking, the Diplomatic Service, teaching, journalism, interpreting and translating, linguist, travel and tourism. These are the areas in which your career might be shaped - an A Level in Spanish will give you a distinct advantage.

COURSE CONTENT

YEAR 12

Theme 1

Aspects of Hispanic Society

- Traditional and modern values
- Cyberspace
- Equal rights.

Theme 2

Artistic Culture in the Hispanic World

- The influence of idols
- Regional identity in Spain
- Cultural heritage.

Grammar

Literature or Film Study

Essay Writing

Research-based Topic Presentation

COURSE CONTENT

YEAR 13

Theme 3

Multiculturalism in Hispanic Society

- Immigration
- Racism
- Coexistence and integration.

Theme 4

Aspects of political life in the Hispanic World

- Young people of today, citizens of tomorrow
- Monarchies and dictatorships
- Social movements
- Further study of Themes 1 and 2.

Grammar

Study of Literary Text

Essay Writing

Research-based Topic Presentation

ASSESSMENT

Paper 1

Written Exam: 2hr 30min

Listening, reading, writing

Translation into English and the target language.

100 marks (50% of total A Level)

Paper 2

Written Exam: 2hr

Essay and grammar

Questions on set text and film.

80 marks (20% of total A Level)

Paper 3

Spoken Exam: 21-23min

Discussion of a sub-theme, based on a stimulus card.

Presentation and discussion of an individual research project.

60 marks (30% of total A Level)

Entry Requirements

THE MINIMUM ENTRY REQUIREMENTS ARE:

- Achieving a minimum of a grade 5 in Mathematics
- Achieving a minimum of a grade 5 in English Language or English Literature
- Achieving at least 3 other GCSEs at grade 6 or above
- Achieving the subject specific requirements in the subjects that a student wishes to study

Subject	Entry Requirements
Art & Design	6 or Merit Art or portfolio of high quality work
Biology	6 Biology or 6 Science and 6 Mathematics
Business *	6 or Merit Business (if studied)
Chemistry	6 Chemistry or 6 Science and 6 Mathematics
Computer Science *	6 Computer Science (if studied) and 6 Mathematics
Design Technology	6 Design Technology
Drama & Theatre *	6 or Merit Drama, or evidence of involvement in drama if not studied at GCSE
Economics *	6 Mathematics
English Language	6 English Language
English Literature	6 English Literature
French	6 French
Geography	6 Geography
History	6 History
Mathematics	6 Mathematics
Further Mathematics **	8 Mathematics
Music	6 Music or Grade 5 Voice or Instrument and Grade 5 Theory
Physical Education	6 or Merit PE, or evidence of club level involvement in sport
Physics	6 Physics or 6 Science and 6 Mathematics
Politics *	General entry criteria apply
Psychology *	6 Psychology (if studied)
Religious Studies *	6 Religious Education (if studied)
Sociology *	6 Sociology (if studied)
Spanish	6 Spanish

* Can be studied at A Level without prior study. ** Should only be chosen a fourth option.

Courses may be withdrawn if the number of applicants does not constitute a viable group.

Bus Routes



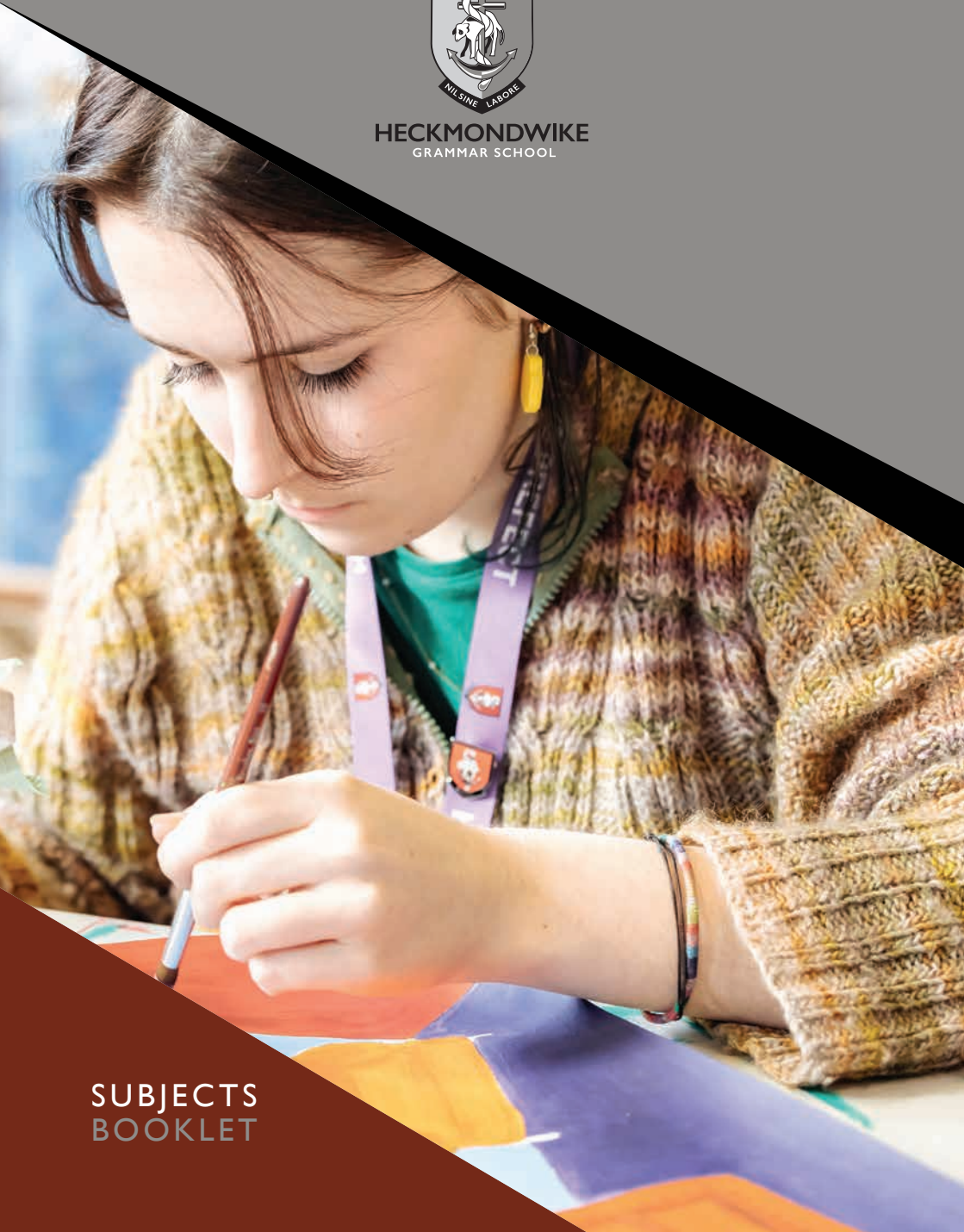
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