

# NGHS6 COURSE GUIDE 2019-2021



NEWPORT GIRLS' HIGH SCHOOL



While it is an advantage to have studied Art at GCSE level, the A level course requires a questioning mind, and a student who is not afraid to experiment and 'try things out'. Enthusiasm for the subject is paramount as well as an interest in and enjoyment of Art and Design. The intellectual, imaginative, creative and intuitive powers will be developed during the course as well as aesthetic understanding and critical judgement. Students will be given opportunities to visit galleries to increase their knowledge and first-hand experience of Art from other cultures and societies past and present. They will be encouraged to visit local galleries collections of Art independently throughout the course.

There is an element of producing work from studying the human form, where a life-model poses for students during both years. Students achieve and benefit greatly from these life drawing lessons.

#### **COURSE OUTLINE**

#### Skills Based Portfolio – Coursework

Students are required to produce a portfolio of work from given starting points, topics or themes. There is a strong emphasis on working with a variety of media but with a student's own theme. For example, everyone may be producing etchings but all looking at completely different subject matter to make their work original and unique.

The focus is on showing that ideas have been explored, researched and skills and techniques have been acquired during the course. Students will benefit from learning a variety of new techniques such as SLR photography, printmaking, painting and drawing, sculpture and digital art.

Coursework project

Students will be given the opportunity to start their major coursework project after Easter which will go towards their overall A Level.

In May students will have a practice exam to developing work on ideas and their experience working under controlled conditions. They will be with awarded internally assessed

grade at the end of the first year.

### Course: AQA 7202 Contact: Mrs A Benoit & Mr A Mason

Course: 100% Coursework & Study

**Entry:** Grade 6 in GCSE Art or Portfolio

#### Year 2—Personal Investigation

Students continue to develop their <u>major project</u> (practical piece of visual work) that has a personal significance to them. This is an opportunity to show what you have learnt to do well. The investigation includes a <u>related</u> personal study that must be between 1000 - 3000 words.

#### Controlled Assignment

Students are given an early release question paper on 11<sup>th</sup> of February from which they select one starting point. They are given 12 - 14 weeks to prepare and plan their ideas. Students are given 15 hours (3 exam days) exam time to realise their ideas into a final outcome or piece of work.

Students often progress onto Foundation Art courses prior to degree courses in a wide range of Art-related subjects. Students have applied to a wide range of courses in recent years.

Potential applicants that are interested in Photographic media are invited to contact the school to discuss this further.











The course builds on concepts and skills that will have been developed in the GCSE Science courses. It encourages students to:

- further their knowledge, understanding and  $\Rightarrow$ enthusiasm for Biology;
- develop their skills, knowledge and understanding of scientific methods;
- develop competence in practical, mathematical and problem solving skills;
- gain an appreciation of the effects of  $\Rightarrow$ biology on society.

Practical assessment does not count towards the A level. However, during the course students will be assessed and at A level this will result in a separate endorsement of their practical skills. Assessment of practical skills will also be tested via the written papers.

Units	Title	
Unit 1	Biological molecules	
Unit 2	Cells	
Unit 3	Unit 3 Exchange in organisms	
Unit 4 Genes and variation		
YEAR 12		

studying biology have gone to a variety of courses including:

- Medicine
- **Pharmacy**
- Veterinary Science
- Biomedical & **Biological Science**
- Genetics  $\Rightarrow$
- Agriculture
- **Environmental**  $\Rightarrow$ Science
- **Teaching**

Many of the students

Course: AQA 7402

**Contact**: Mrs S Dainty & Mrs R Narasimhan

Course:

100% Examination

Entry: Grade 6 in GCSE Biology or Grade 7 in Science



The department also works closely with Harper Adams University to promote the Gold Crest Awards, allowing students the chance to work alongside academics on personal studies.

Units	Title	
Unit 5	Energy transfers	
Unit 6	Responding to change	
Unit 7	Genetics, evolution and ecosystems	
Unit 8	The control of gene expression	
YEAR 13		



Biology Field Work Visit to Malham 2018



The first teaching modules will cover the fundamental basics in theory and practical work which all good chemists should be familiar with. This will include topics on acids and bases, redox reactions, use of the mole concept, and structure and bonding within materials. Questions on this work may feature in ANY of the three final papers.

The subject will then be divided into two strands broadly following the lines of inorganic/physical chemistry in one and organic chemistry in the other. Physical chemistry is tested in both papers 1 and 2, inorganic in paper 1 and organic in paper 2.

There will be much more emphasis than before on the links between the topic areas and a synoptic view to the subject is tested in paper 3, which will require knowledge of the whole content and an ability to write at length.

Practical work no longer features as a component within the A level exam, but will be recognised by a 'pass or fail' endorsement which will be published alongside the A level grade. This involves doing 12 experiments, suggested by the board, in the context of the work carried out during normal lessons. These will be moderated by the board, but initially assessed by us.

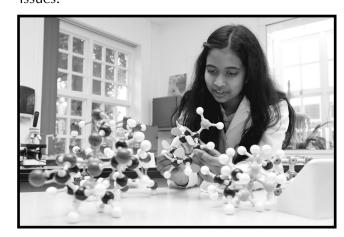
The greatest difference between GCSE and A-level is encountered in physical chemistry. Many of the ideas have been discussed at GCSE level, but more calculations are involved. Some people find these difficult but anyone who has coped well with GCSE level Maths and gained good science GCSE results should be capable of them and many people enjoy the challenge of solving problems.

### OPPORTUNITIES AFTER THE COURSE

Chemistry A-level is a specific requirement for many courses at university and can lead to careers in chemistry, medicine, pharmacy, biological sciences and other less obvious areas such as law.

Chemistry is an exciting subject; it is also of enormous importance for the well being and Course: AQA 7405
Contact: Mr C Tolley & Mr J Wade
Course:
100% Examination
Entry: Grade 6 in
GCSE Chemistry/or
Grade 7 in Science.

advancement of our civilisation. You have only to consider how the chemicals industry provides agrochemicals, vour food (fertilisers, preservatives), clothing (fibres, detergents), shelter materials), transport (construction lubricants) and health (drugs, pharmaceuticals) to realise that life as we know it would stop almost overnight if the fruits of past chemical research and development were not available. Chemistry also has a major part to play in environmental issues.



Units	Unit Content	
Exam1 (2hr)	Physical chemistry and Inorganic (Multiple choice Qs and structured Qs worth 105 marks)	
Exam2 (2hr)	Physical chemistry and organic chemistry (Multiple choice Qs and structured Qs worth 105 marks)	
Paper3 (2hr)	Synoptic paper - any content can be tested	
Practical	Pass/Fail – will be reported alongside the A level grade but will no longer be endorsed: part of the exam. Papers 1-3 also test relevant practical skills.	



To succeed in this course, it is essential to have achieved a good grade in Computer Science at GCSE. A keen interest and enthusiasm for this subject, especially programming is also required.

Computer Science is a practical subject where students can apply the academic principles learned in the classroom to real-world systems. It's an intensely creative subject that combines invention and excitement, and can look at the natural world through a digital prism.

#### Computer systems

This component will introduce you to the internal workings of the Central Processing Unit (CPU), the exchanging of data, and also looks at software development, data types and legal and ethical issues. The following are tested:

- The characteristics of contemporary processors, input, output and storage devices
- Software and software development
- Exchanging data (How data is exchanged between different systems)
- Data types, data structures and algorithms
- Legal, moral, cultural and ethical issues.

#### Content of Algorithms & Programming

You will understand what is meant computational thinking, and understand the

A great lathe operator commands several times the wage of an average lathe operator, but a great writer of software code is worth 10,000 times the price of an average software writer. (Bill Gates)

benefits of applying computational thinking to solving a wide variety of problems:

- Elements o f computational thinking
- Problem solving and programming
- Algorithms

#### Programming project

You will analyse, design, develop, test, evaluate and document a program written in a suitable

programming language for real users.

Course: OCR H446

Contact:

Mr S Hennessey

Course: 20% Project 80% Examination

Entry: Grade 6 in **GCSE** Computing

### **OPPORTUNITIES AFTER THE COURSE**

This A-level will give you a significant advantage if you decide to read Computer Science or a related degree at university. It is also a good base for several other degree areas such as Engineering or Digital Media, where the ability to program will be very useful. It also recognised by the Russell Group as being useful in a wide range of subjects including mathematics, geography and several science degrees. Some universities also require a good grade in a mathematics A-level in order to progress onto their Computer Science courses.

Content Overview	Assessment Ove	erview
<ul> <li>The characteristics of contemporary processors, input, output and storage devices</li> <li>Software and software development</li> <li>Exchanging data</li> <li>Data types, data structures and algorithms</li> </ul>	Computer systems (01) 140 marks 2 hours and 30 minutes written paper (no calculators allowed)	40% of total A level
Legal, moral, cultural and ethical issues     Elements of computational thinking     Problem solving and programming     Algorithms to solve problems and standard algorithms	Algorithms and programming (02*) 140 marks 2 hours and 30 minutes written paper (no calculators allowed)	<b>40</b> % of total A level
The learner will choose a computing problem to work through according to the guidance in the specification.  Analysis of the problem Design of the solution Evaluation	Programming project 03* – Repository or 04* – Postal or 80 – Carry forward (2018 onwards)* 70 marks Non-exam assessment	20% of total A level



Economics is the study of how people choose to use resources. Resources include the time and the talent people have available as well as the land, buildings, equipment and the knowledge of how to combine these to create useful products and services.

The course compromises elements of Economics as well as Business Studies although it is awarded as A-level Economics. It is therefore, essentially a combined course which provides students with the best of both – the dynamic nature of Business and the academic rigour of Economics.

#### **COURSE REQUIREMENTS**

You may not have studied business or economics related subjects before, but that does not matter. What is much more important is that you are ready to learn about markets and the economy as well as how these affect businesses and entrepreneurs. You should also be willing to read newspapers, follow current affairs and visit businesses in your own time.

#### WHAT WILL I LEARN?

The course structure is outlined below:

**Theme 1:** Markets, consumers and firms (35% of total). This covers: Enterprise, business and the economy, sources of finance, the market place, market failure and Government Intervention,

**Theme 2:** The wider economic environment. This covers: business growth and competitive advantage, marketing and estimating demand for the product, business efficiency, globalisation, the

economic cycle and macroeconomic policy.

**Theme 3:** The global economy. This covers: globalisation, business expansion, global marketing, multinational corporations, global labour markets and inequality and redistribution.

**Theme 4:** Making markets work. This covers: competition and market power, market failure in business, market failure across the economy, macroeconomic policies and impact on firms and individuals, risk and the financial sector.

### SKILLS DEVELOPED DURING THE COURSE

Students are encouraged to use an inquiring, critical and thoughtful approach and develop an ability to think as an economist. Throughout the course

students will develop a clear, concise style of which writing, will enable them to communicate ideas effectively in a business setting. They will also learn how to analyse and interpret economic indicators, to decipher how these may affect a business and to suggest actions to be taken to benefit from these, or minimise the damage.

Course: Edexcel 9EC0
Contact: Mrs L Kearne
Course:
100% Examination
Entry: Grade 6 in
GCSE Maths/English

Students will develop skills in written, numerical and diagrammatical form. emphasis of the course is on solving problems based on real economic and business situations. There are visits to businesses organised to support the course.

#### IS THIS THE RIGHT SUBJECT FOR ME?

This course is suitable if you:

- Take an interest in current economic issues in the national and international business news
- Desire to learn how to analyse information effectively and suggest solutions to real problems that affect businesses, the economy and individuals
- Wish to gain a background in economics and business with a view to gaining a management position in any organisation in the future.



Young Enterprise is popular with Economics students

Students who make excellent progress in English Literature at A-Level have a genuine interest in reading, the arts and culture. You will need to be able to think independently and creatively, as well as having a methodical approach to your studies. Debate and discussion play an important role in the course and we expect you to share and discuss your ideas freely and openly.

#### **COURSE OUTLINE**

Students studying A-Level English will complete one coursework essay worth 20%, with terminal examinations at the end of Year 13 counting for 80% of the final mark. Students will study prose, poetry and drama from a range of periods and countries. There will also be opportunities to attend theatre visits (the school has a Royal Shakespeare Company membership) and lecture days. In addition, there are many extra-curricular opportunities within the department, such as the literary society; the film society; the performing arts society and an opportunity to compete in a public speaking competition.

The course comprises 80% examination and 20% coursework. A wide range of challenging modern and canonical texts are studied, including the following:

- ♦ Shakespeare (Currently 'Othello')
- Pre-1900 prose (Currently 'The Picture of Dorian Gray' and 'Dracula')
- Post-1900 drama and poetry (Currently 'A Streetcar Named Desire'; poetry of Phillip Larkin; Poems of the Decade: An Anthology of the Forward Books of Poetry)
- ♦ A comparative literary study [A-Level NEA component] (the current focus is on 20th Century America)

### OPPORTUNITIES AFTER THE COURSE

At A-Level, English traditionally Literature compliments subject choices in the arts. humanities, languages and the social sciences. However, many students also take English Literature alongside STEM subjects, as it is an opportunity to develop communication skills and show a breadth of knowledge. Admission tutors for English Literature and related courses at Course: Edexcel 9ET0
Contact: Mr D Postle

Course:

80% Examination 20% Coursework

**Entry:** Grade 6 in GCSE English



university level look for high grades from applicants, as it is a popular course. Such courses are stepping stones to careers in areas such as business, law, publishing, PR, the arts, the public sector and education.

A-Level English Literature is an academic subject that is held in high regard by the most prestigious universities in the UK – it is one of the Russell Group's facilitating subjects and students usually go on to study at oversubscribed universities including Oxbridge.

In terms of degree choices, students mainly go on to study within subject areas such as History, Languages, Law, Politics, Education and English. In addition, former students have also gone on to study degrees in more practical subjects such as Fashion Management, Nursing, Paramedic Science and Architecture.



"For me, studying English is about studying people, and people have always fascinated me with their unknown depths: everyone from the old lady opposite you on the bus to the Queen has their own lives, thoughts and feelings, and expressing these is part of what makes English so unique. Where else can you find words written by someone miles away or centuries ago that, had you the words to string together, you could have written yourself just yesterday? Which other subject can swell a room to a vast, sprawling city or narrow the world to a single blade of grass?"

Eleri Vaughan (former student)



Year 13 English Literature students working hard in class



To study French you should have a high grade in GCSE French and feel confident using GCSE grammar. You will also need to enjoy communicating and discussing and challenging yourself!

There are many opportunities open to students after studying French at A level. Many employers see languages as a great advantage and consider communication skills as vital to the vast majority of careers. A degree in French may lead to careers in business, law, the Civil Service, publishing, journalism, librarianship and teaching, as well as more obvious language-based professions like translating and interpreting.

The course involves a wide range of topics.

#### Paper 1 – Listening, Reading and Writing

- ⇒ Aspects of French-speaking society:
  - Current trends the changing nature of Family
  - the 'cyber-society'
  - the place of voluntary work.
  - Current issues positive features of a diverse society, life for the marginalized, how criminals are treated.
- ⇒ Artistic Culture in the French-speaking world:
  - A culture proud of its heritage, contemporary Francophone music, cinema: the 7th art form.
- ⇒ Aspects of Political Life in the French-speaking world:
  - Teenagers, the right to vote and political commitment
  - Politics and Immigration,
  - Demonstrations and Strikes who holds the power?

#### Paper 2 – Writing

We will study one text and one filme, starting towards the end of Year 12. We will study:

Book: *Un sac de billes,* (Joseph Joffo)

Film: La Haine

#### Paper 3 - Oral

You have to prepare and discuss an individual research project on a topic of your choice. You also have a short discussion in French on one of the topics from Paper 1.



Course: AQA 7652

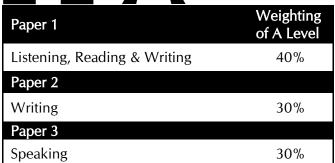
Ms D Branson

Contact:

70% Examination30% Speaking Test

**Entry:** Grade 6 in GCSE French









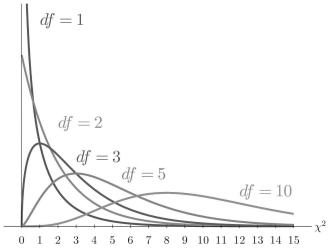
### FURTHER MATHEMATICS

This course is only open to students taking A-level Mathematics. It is taken in order to extend and broaden your knowledge of the subject. If you want to read mathematics at university you will find yourself at a disadvantage if you have not taken at least AS Level Further Mathematics, which can be taken after year 12 at NGHS, You will also find it advantageous if you are wishing to go on to study Engineering or other Mathematics related courses.

The A-level is now a two year linear course. This consists of two compulsory Pure Core modules and four optional areas: statistics, mechanics, discrete mathematics and additional pure mathematics. Four exams are to be taken at the end of Year 13 with two being the compulsory Pure Core modules and the other two from either statistics, mechanics, discrete mathematics or additional pure mathematics. All papers have equal weighting.

In Pure Core you will extend and deepen your knowledge of proof, algebra, functions, calculus, vectors and differential equations studied in A Level Mathematics. You will also broaden your knowledge into other areas of pure mathematics that underpin the further study of mathematics and other numerate subjects with complex numbers, matrices, polar coordinates and hyperbolic functions.

In Statistics you will explore the theory which underlies the statistics content in A Level Mathematics, as well as extending your tool box of statistical concepts and techniques. This area covers combinatorics, probability distributions for discrete and continuous random variables, hypothesis tests and confidence intervals for a population mean,  $\chi$ -squared tests, nonparametric tests, correlation and regression.



In Mechanics you will extend your knowledge of particles, kinematics and forces from A Level Mathematics, using vour extended pure mathematical knowledge to explore more complex physical The systems. area covers dimensional analysis, work, energy, impulse, power, momentum, centres of

mass, circular motion

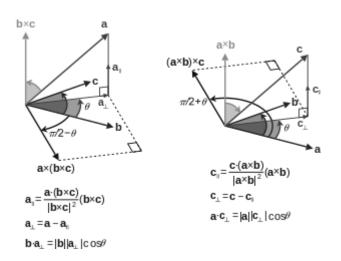
and variable force.

Course: OCR H245
Contact:
Mr A Heighway
Course:
100% Examination
Entry: Grade 8 in
GCSE Mathematics

Discrete Mathematics is the part of mathematics dedicated to the study of discrete objects. You will study both pure mathematical structures and techniques and their application to solving real-world problems of existence, construction, enumeration and optimisation. Areas studied include counting, graphs, networks, algorithms, critical path analysis, linear programming, and game theory.

In Additional Pure Mathematics you will broaden and deepen your knowledge of pure mathematics, studying both discrete and continuous topics which form the foundation of undergraduate study in mathematics and mathematical disciplines. This area covers recurrence relations, number theory, group theory, the vector product, eigenvalues and eigenvectors, surfaces and partial differentiation.

There is no coursework.



Geography tackles the big issues such as environmental responsibility, our global independence and cultural understanding. It is a bridge between the arts and sciences but has its own transferable skills such as data analysis and evaluation, report writing and research. Team work and problem solving skills are developed through a range of field trips.

It is desirable, but not essential, to have studied Geography at GCSE. Α keen interest and enthusiasm for this subject is required.

Geography post 16 offers scope for personal and academic development, actively involving students in the process of learning through enquiry into questions, issues, challenges and problems of relevance in the world today. In particular it investigates the inter-relationships of people and their environment.

The course followed is AQA GCE Geography. This is an issues based course, which examines many of the problems in the physical and human environments of the world. The modules are as follows:

#### Unit 1: Physical Geography

Topics studies are: water & carbon cycles, coastal environments and hazardous environments. 2 hrs 30 mins exam, 40% of the A-level.

### Geography

Topics studied are: global governance and systems, changing places, population and the environment. 2 hrs 30 mins exam, 40% of the A-level.

#### Unit 3: Geographical investigation

Students will undertake a four day residential field trip to the Lake

District and West Cumbria, looking at both physical and human geography. This will form the basis of their geographical investigation project, which should be 3000-4000 words in length. The project is worth 20% of A-level.

### Unit 2: Human

Course: AQA 7037 Contact: Mr J Pimm

#### Course:

80% Examination 20% Investigation

Entry: Grade 6 in GCSE Geography or another Humanity

#### OPPORTUNITIES AFTER THE COURSE

The variety of topics and skills covered gives geographers a variety of career opportunities, which include personnel management, estate management, tourism, town planning The subject supports landscape architecture. applications to a wide range of higher education courses from Law to Earth Science.



Geography students out on field work data collection



To study German you should have a good grade in GCSE German and feel confident about GCSE grammar, however the grammar will be covered again right from the basics.

There are many opportunities open to students after studying German at A-level. Many employers see languages as a great advantage and consider communication skills as vital to the vast majority of careers. A degree in German may lead to careers in business, law, the Civil Service, publishing, journalism, translating, librarianship and teaching. Naturally languages open up opportunities for exciting careers abroad.

The course leads to the A-level of the AQA Examination Board and involves a wide range of topics.

#### Paper 1 – Listening Reading and Writing

- ⇒ Aspects of German-speaking society:
  - current trends
  - the changing nature of Family;
  - the digital world;
  - youth culture: fashion, trends, music, TV
- ⇒ Multiculturalism in society:
  - Immigration, integration, racism
- ⇒ Artistic Culture in the German-speaking world:
  - festivals and traditions,
  - · art and architecture
  - Cultural life in Berlin, past and present
- ⇒ Aspects of Political Life in the German-speaking world:
  - German and the European Union,
  - politics and youth,
  - German reunification and its consequences

### Paper 2 – Writing (2 x 300 word essays)

One text and one film: Book: Der Vorleser (Schlink) Film: Goodbye Lenin

#### Paper 3 - Oral

Based on an individual research project of choice which allows the student to immerse themselves in a topic they enjoy related to a German speaking country.

Plus a stimulus card on one of the above topics from paper 1.



Course: AQA 2660
Contact: Mrs L Payne
Course:
70% Examination
30% Speaking Test
Entry: Grade 6 in
GCSE German

Paper 1	Weighting of A Level
Listening, Reading & Writing	40%
Paper 2	
Writing	30%
Paper 3	
Speaking	30%







Students on work experience trip to Dortmund

### GOVERNMENT & POLITICS

Students taking this course are expected to have demonstrated an ability to research widely, analyse evidence and reach balanced conclusions. Students also need an enquiring mind, a passion for current affairs, be willing to engage with debates and have an ability to reason and think independently.

This is an exciting new specification which offers more breadth for students who are interested in politics, whilst still retaining the level of depth that students achieve currently.

Over the two year course, students will study the political processes and institutions in both the United Kingdom and in the U.S.A. There will also be a comparative section to enable students to synthesize and demonstrate their learning.

In addition the new course will include the study of a range of ideological traditions; conservatism, socialism and liberalism as well as a focus on feminism. Students will be expected to read some of the key texts associated with these ideologies and to appreciate the historical context within which they developed.

All units will be examined at the end of the two year course. There are 3 exam papers, each of which are 2 hours long and equally weighted.

**Component 1:** UK Politics. This will cover political participation and the core political ideas of conservatism, liberalism and socialism.

**Component 2:** UK Government. Students will study the constitution, parliament, Prime Minister and executive. They will also study feminism.

Component 3: Comparative Politics. Students will study the USA. They will cover the US constitution and federalism, U&S Congress, US Presidency, US Supreme Court and civil rights.





Students will be assessed through a mixture of essays and source based exercises.

Course: Edexcel 9PL0
Contact: Mrs K Griffin
Course:
100% Examination
Entry: Grade 6 in a
Humanity Subject

#### **OPPORTUNITIES AFTER THE COURSE**

Students taking this option have gone on to study a wide variety of subjects including Politics, Economics, Business, History, International Relations and Law at University.

Politics also combines well with all other A level subjects. The study of Politics helps to develop the type of analytical mind, ability to synthesise information and excellent communication skills that are a prerequisite for a wide range of career paths.

Students in this subject have gone on to careers in Law, Finance, General Management including in the Fashion sector, Journalism, Politics and International relations.



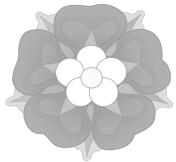


#### **COURSE REQUIREMENTS**

Previous knowledge of the subject is not a requirement, as some of the topics are new to all students. Instead, a genuine interest and enthusiasm, initiative, critical thinking and debate are more valuable skills.

#### **OPPORTUNITIES AFTER THE COURSE**

History is a subject that encourages students to critically evaluate and interpret evidence from the past in order to develop reasoned hypotheses and form balanced judgments. With such transferable skills, History therefore provides an excellent foundation for various higher education courses, as well as increasing employability in a range of career areas, especially those that require developed communication skills. Some examples include: Journalism, Law, Politics and Management.





Course: AQA 7042

Contact:

Miss A-M Davies

Course:

80% Examination 20% Coursework

**Entry:** Grade 6 in a GCSE Humanity

A Level History includes:			
Component 1	Component 2	Component 3	
Worth 40%	Worth 40%	Worth 20%	
External examination	External examination	Coursework	
Breadth study with interpretations	Depth study with sources	Historical enquiry based on interpretations	
Paper Code 1H:	Paper Code 2B:		
Tsarist and Communist Russia, 1855-1964	The Wars of the Roses, 1450-1499	'The Golden Age of Spain, 1474-1598'	



Medieval History Weekend Trip at Warwick Castle

The A level is now a two year linear course with three two-hour exams taken at the end of Year 13 graded from A\* to E.

The course consists of three areas: pure mathematics, mechanics and statistics.

Paper 1 will consist of pure mathematics. Paper 2 will consist of half pure mathematics and half statistics. Paper 3 will consist of half pure mathematics and half mechanics.

All papers have equal weighting.

In Pure Mathematics you will learn new methods and techniques which will build on your knowledge of graphs, trigonometry, algebra and vectors learnt in the new GCSE. We will also study a new topic called calculus, which is a powerful tool for working out, for example, gradients of curves and areas under graphs. You will learn to understand the need both for mathematical rigour and for being able to use the various techniques within models of real life situations.

In Statistics you will learn to appreciate that it is a practical subject in constant everyday use, whilst at the same time, it has a strong theoretical background. You will build on to your knowledge of probability and data analysis as you investigate the idea of statistical modelling.

In Mechanics you will learn how you can model real life situations involving velocity, distance and time using mathematics and how to solve physical problems. Topics include studying the motion of projectile and Newton's laws of motion.

Calculators (both scientific and graphical) are allowed in all three exams.

There is no coursework.



Course: OCR H240

Contact:

Mr A Heighway

Course:

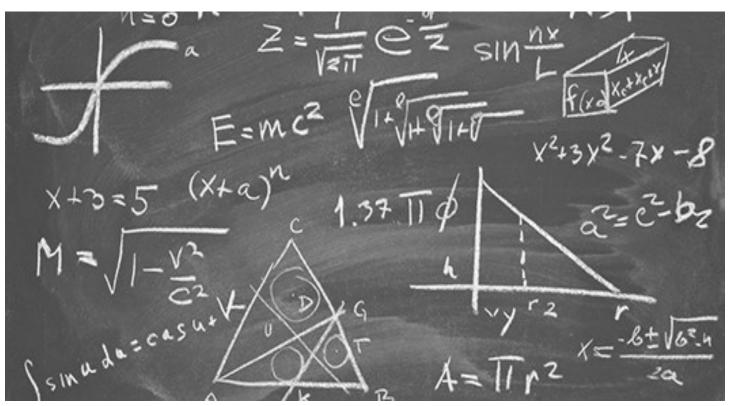
100% Examination

**Entry:** Grade 6 in GCSE Mathematics



#### **OPPORTUNITIES AFTER THE COURSE**

Mathematics is an exciting and interesting subject to study and a mathematics degree leads on to many opportunities in industry and commerce where it is the discipline of mind developed by studying mathematics which is valued rather than the subject content.





In order to do well in A-Level Music, you must have at least grade 6 standard on one or more instruments (or voice) and a level 6 at GCSE. You will demonstrate a high level of musicianship with a real interest in a range of musical genres and idioms.

You will need to have a real love for both the practical and theoretical elements of music and be able to show commitment and dedication to your wider listening and general studies. Students who are successful musicians ensure they are performing regularly in a range of ensembles and are responding to feedback on a regular basis.

#### **OPPORTUNITIES AFTER STUDYING MUSIC**

After A-Levels, some students follow the practical route and become professional musicians continuing their studied into higher education. Many universities recognise music as a subject which shows the candidate has wider interests and expertise. Music can also offer opportunities to join bands and choirs and forge lasting friendships as well as travel experiences. Other occupations include composing, conducting, examining, production, music technology, teaching and music therapy.

#### **COURSE OUTLINE**

Students will study performing, composing and appraising and will study a range of set works as well as complete wider listening.

#### Component 1: Performing 35%

Students will complete a performance in front of an examiner which must be between 10-12 minutes in length. They can combine solo and ensemble performance or perform just as a soloist and one of the pieces must link to one of the areas of study.



### Component 2: Composing 25%

Students will be required to compose two original pieces lasting between 4-6 minutes.

One of the compositions must link to techniques studied within set works and the other is written in response to a brief set by EDUQAS. Course: Eduqas

course: Eduqus

**Contact**: Mrs A Chapman

Course:

Various (see below)

**Entry:** Grade 6 in GCSE Music or Grade 5 Music Theory

### Component 3: Appraising 40%

#### Area of study A: The Western Classical Tradition

- Symphony no. 104 in D Major 'London' Haydn
- Symphony no. 4 in A major, 'Italian' Mendelssohn

#### Area of study C: Musical Theatre

#### Area of study E: Into the Twentieth Century

#### PERIPATETIC MUSIC LESSONS

The music department at NGHS is also happy to offer all students peripatetic lessons in a range of instruments and voice. If you are joining NGHS6 and would like to take lessons in school, please see Mrs Chapman or feel free to email her via schooloffice@nghs.org.uk





#### PHILOSOPHY OF RELIGION & ETHICS (RE)

The AQA course provides the opportunity for students to explore ultimate questions about existence and morality. It covers a variety of relevant and contemporary themes that will inspire engaging classroom discussion and help students to develop the independent thinking, critical and evaluative skills sought by higher education and employers. Students will become familiar with the responses philosophers and religions have made to ultimate questions and are encouraged to formulate their own responses to such questions. Throughout the course emphasis is placed on critical analysis and the construction of balanced, informed arguments within the context of religious, philosophical and ethical awareness.

# COMPONENT 1: PHILOSOPHY OF RELIGION (3 HOUR EXAMINATION, 50% OF A-LEVEL) Section A - two compulsory questions

In this section students will study a range of philosophical ideas, methods and issues. These include:

- ⇒ Arguments for the existence of God.
- $\Rightarrow$  Evil and suffering.
- ⇒ Religious Experience.
- ⇒ Religious Language
- $\Rightarrow$  Miracles
- ⇒ Self, death and the afterlife.

#### Section B - two compulsory questions

In this section students will explore different approaches to ethical decision making and apply ethical theories to a range of contemporary moral issues. Students will study the following:

- $\Rightarrow$  Normative ethical theories.
- ⇒ The application of natural moral law, situation ethics and virtue ethics to:
  - ⇒ Issues of human life and death Issues of non-human life and death
  - $\Rightarrow$  The meaning of right and wrong.
- ⇒ Free will and moral responsibility.
- ⇒ Conscience.

# COMPONENT 2: STUDY OF RELIGION & DIALOGUES (3 HOUR EXAMINATION, 50%) Section A - two compulsory two-part questions

In this section students will explore the religious beliefs, teachings, values and practices of Christianity. The content includes:

- ⇒ Sources of wisdom and authority.
- ⇒ Christian beliefs about God.
- ⇒ Beliefs about Self, death and the afterlife.
- ⇒ Beliefs about good conduct and key moral

principles.

⇒ Ways in which Christians express their religious identity.

- ⇒ Christianity, gender & sexuality.
- ⇒ Development in Christian though, including feminist approaches.
- ⇒ Christianity and Science.
- ⇒ Christianity and secularization.
- ⇒ Christianity, migration and religious pluralism.

### 1

Course: AQA 7062

Contact: Mrs J Barker

Course:

100% Examination

Entry: Grade 6 in Humanity Subject & ideally in English

# Section B: The dialogue between Christianity and philosophy - one unstructured synoptic question from a choice of two

The content includes how far beliefs are reasonable and how consistent they are with other beliefs as well as the relevance of philosophical enquiry for religious faith. More information can be found in the syllabus

# Section C: The dialogue between Christianity and ethics. One unstructured synoptic question from a choice of two

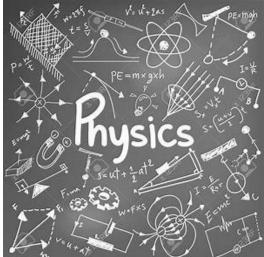
The content includes Christian responses to deontological, teleological and character-based approaches to moral decision making, responses to human life and death and to wealth, tolerance and freedom of religious expression. More information can be found in the syllabus.

#### WHY TAKE PHILOSOPHY & ETHICS?

During the course students will develop many transferable skills that will be beneficial in further study, be it in Philosophy, Theology or Religion or any academic discipline that requires independent, critical, analytical and evaluative thinking.

It is **not** a requirement that students have studied GCSE Religious Studies. Anyone who is interested in philosophical and ethical ideas and problems, is open minded, enquiring and enjoys discussion and challenge will enjoy this course. The course does involve reading and extended writing.





The A-level course is a two-year linear course, with all assessments taking place at the end of the two years.

focuses on forces, dynamics, Year 1 materials, electricity, particles and radiation. In Year 2 we study circular motion, simple harmonic motion, nuclear physics, thermal physics, and explore the concept of force fields in gravitation and electromagnetism. There is optional an topic, from Medical Astrophysics, Physics, Engineering Physics, Turning Points in Physics and Electronics. The approach will Course: AQA 7408
Contact: Dr S Catalan
Course:
100% Examination
Entry: Grade 6 in
GCSE Physics or
Grade 7 in Science

be to develop good thinking and problem solving skills while gaining a solid understanding of the various topics. There will be numerous opportunities to carry out experiments to link theory to reality. Practical and evaluative skills as well as data analysis will be developed throughout the course and assessed via structured tasks.

#### **EXAM STRUCTURE**

There are three, 2-hr exams at the end of the second year. All three papers contain short and long answer questions as well as multiple choice questions. At least 40% of the marks in assessments will require the use of mathematical skills which are to the standard of higher tier GCSE mathematics.

Paper	What's assessed	Max marks and % of A- level
1	Measurements and their errors, Particles and Radiation, Waves, Meachanics and Materials, Electricity and Simple Harmonic Motion.	85 (34% of A-level)
2	Further Mechanics and Thermal Physics, Fields and their consequences, and Nuclear Physics.	85 (34% of A-level)
3	Practical Skills and Data Analysis and Optional Topic	80 (32% of A-level)

In addition, there are a set of practical skills that each candidate must demonstrate through at least 12 required practical activities across the two years. Although grades in practical work will not count towards the final A-level, candidates must attain a "pass" mark on all these skills to gain the A-level, and Papers 1 and 3 will include questions that assess aspects of these compulsory skills and practical activities.

#### **OPPORTUNITIES AFTER THE COURSE**

Physics A-level is widely regarded as the most mathematical, mentally stimulating and challenging of all the three sciences. For this reason it is highly valued by admissions tutors and employers. It provides an insight into the world around us at all scales, from the inner workings of the atom to the birth and formation of the universe, as well as everything else in between. It is at the heart of all big technological advances in transport, communications, computing, robotics and materials to name but a few.

The course trains students to take a logical, problem-solving approach to whatever situations they may find themselves in. The subject engenders independent thinking and resilience as well as a tenacious approach and the ability to pay attention to detail. Physics students explore concepts and methods of science and gain analytical, thinking and experimental skills that are not only widely applicable in many professional areas but also highly regarded by every sector. A-level Physics is an expected entrance qualification to university degrees in Physics, Geophysics and all Engineering degrees where it pairs well with Maths, Further Maths and Chemistry A-levels. It is also viewed favourably when applying to study a wide range of degrees, from Architecture to Medicine, Food Science and Climatology, or even where its relevance is not immediately obvious such as Philosophy and Law. Physics is a very satisfying (and fun!) subject to study at A-level. If you are curious about the world you live in and you thrive on a challenge then Physics is the subject for you.

This new creative and thought-provoking qualification will give students the practical skills, theoretical knowledge and confidence to succeed in a number of careers, especially those in Students will investigate creative industries. historical, social, cultural, environmental and economic influences on design and technology, whilst enjoying opportunities to put their learning in to practice by designing, manufacturing and evaluating products of their choice. Students will develop their intellectual curiosity about design and manufacture of products and systems, and their impact on daily life and the wider world. Students will gain a real insight into the creative, engineering and/or manufacturing industries.

The course will appeal to students who have an enquiring mind. The course encourages innovation, takes account of the varied interests of the student and enables students to learn about design in a design-make-test-evaluate context. The course has clear links with maths and science.

#### **COURSE OUTLINE**

There are three main areas to this course, the nonexam assessment coursework project (in which students are encouraged to be as creative as possible before making their idea as a finished working product), Paper 1 which is a 2 hour

examination (core technical, designing and making principles) and Paper 2 which is a 2 hour examination (specialist knowledge, technical, design and making principles linked product to analysis a n d manufacturing). Graphic techniques are integral part of Product Design to enable students to clearly communicate ideas.

Course: AQA 7552
Contact: Miss T Wells
Course:
50% Examination
50% Project
Entry: Grade 6 in a
GCSE Technology

#### **OPPORTUNITIES AFTER THE COURSE**

Product Design can be combined with other favourite subjects to create a wide range of possible career paths. For example combining with maths or physics creates opportunities for architecture, civil, aeronautical and mechanical engineering. Product Design with business studies would make a strong application to marketing or advertising courses. Product Design with art lends itself to foundation studies, theatre and fashion design.

Assessment	What's assessed	How it's assessed	Questions or Evidence
Paper 1	Core technical principles and core designing and making principles	Written exam: 2 hrs 25% of A-level	Mixture of short answer, multiple choice and extended response.
Paper 2	Specialist knowledge, technical, designing and making principles	Written exam: 2 hrs 25% A-level	Mixture of short answer, multiple choice and extended response questions based on product analysis and commercial manufacturing.
Non-Exam Assessment	Practical application of technical principles, designing and making principles and specialist knowledge	Substantial design and make task 45 hours 50% of A-level	Design portfolio, 3d prototype and photographic evidence of 3d final prototype.

The focus is on learning about Psychological theories and studies as well as considering their application to real world situations. Research methods teaching is integrated throughout the two years and there will be some opportunities to carry out small projects.

#### **FUTURE OPPORTUNITIES**

A-level Psychology provides students with a range of transferable skills including critical evaluation and argument construction which are an excellent basis for many university courses. With a degree in Psychology and further postgraduate training there are a wealth of opportunities in clinical, educational, occupational and forensic Psychology, as well as other careers where working with people is central. Many students who take the A-level at this school go on to study undergraduate psychology courses at University or related ones including criminology.

#### **EXAM STRUCTURE**

The A-level will be examined at the end of Year 13 through three equally weighted 2 hour papers.

#### **COURSE OUTLINE**

Year 1 – all compulsory units

- ⇒ Social Influences
- ⇒ Memory
- ⇒ Attachment
- ⇒ Approaches in Psychology
- ⇒ Research Methods
- ⇒ Psychopathology

Year 2 – units:

- ⇒ Biopsychology
- ⇒ Issues and Debates
  - ⇒ Relationships
- ⇒ Eating Behaviour/Stress
- ⇒ Aggression



Course: AQA 7182

Contact:

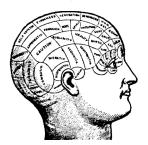
Mr O Pointon

Course:

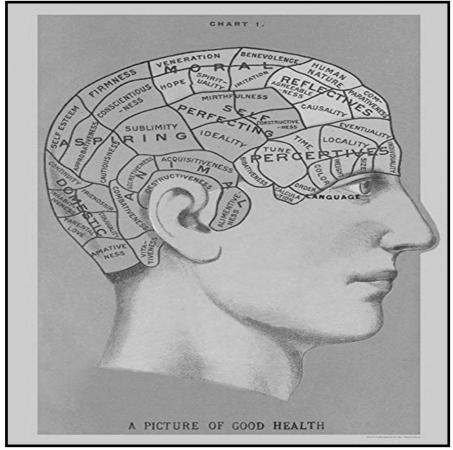
100% Examination

**Entry:** Grade 5 + Maths/English/Science





As most students will not have studied Psychology before, no prior knowledge is expected before choosing this course. However, background reading will be set in the summer holiday to prepare students for the first topic.



## EXTENDED PROJECT (EPQ)

#### OPPORTUNITIES PROVIDED BY THE EPQ

The Extended Project Qualification is an extremely useful additional qualification and is proving to be an important factor in preparation for university.

The skills developed, such as critically selecting information from a range of sources, analysing data and demonstrating understanding of linkages, connections and complexities of a topic provide ideal preparation for all undergraduate courses and research is suggesting that completion correlates with degree success too. Some universities now offer a reduced offer to students predicted an B, A or A\* grade in EPQ.

#### **COURSE OUTLINE**

Students will develop their own project title. They will then be supported by an individual supervisor and a series of taught sessions to carry out research and produce a project. Taught sessions will include: title choice, research skills, time management, referencing and developing written arguments.

The final outcome will consist of an extended report or artefact as well as a Production Log to record their planning and learning as the report progresses and a presentation to a nonspecialist audience using appropriate media. Finally they will also be assessed on their responses to a live question and answer session.

Course: AQA 7993
Contact: Mrs L Kearne

Course: 100% Project

Entry: None Compulsory course for all students



#### **EXAM STRUCTURE**

No examination, the qualification is internally assessed and moderated before being sent for external moderation. It is a level 3 qualification worth half an A-level and can be awarded an A\*.

This course is compulsory for those taking three A-level subjects at NGHS6 but optional for those taking four A-levels.



#### FINAL NOTE

This information booklet should be read in conjunction with our Sixth Form Prospectus and our website, where more information about NGHS6 can be found. If you have any questions, please contact Mrs K Griffin (Head of Sixth Form), Reverend S Walters (Deputy Head) or Mr M Scott (Headteacher) who will be happy to discuss your plans or queries with you.

Completed application forms for NGHS6 must be returned by THURSDAY 14 FEBRUARY 2019.

The information in this booklet is correct as of September 2018 for students joining NGHS6 in September 2019. The School reserves the right to make any changes to courses/syllabuses, to combine groups or not run courses if numbers are not viable. However, every effort will be made to run each A-level course and students will be kept informed of any changes.

#### GET IN TOUCH

It's easy to get in touch with NGHS. If you would like to talk to a sixth former who is taking a particular subject, this can also be arranged.

Please connect with us in one of the following ways:

NGHS6, Newport Girls' High School Wellington Road, Newport, TF10 7HL

www.nghs.org.uk

@NGHS\_Info

www.facebook.com/nghs6

**1** 01952 797550

MGHS6@nghs.org.uk