

Queen Elizabeth's Grammar, Alford



**Sixth Form  
Induction Booklet  
2021**



# QUEEN ELIZABETH'S GRAMMAR, ALFORD

*A Selective Academy Ltd*

## Preparation for the start of Autumn Term 2021

Thank you for applying to join Queen Elizabeth's Sixth Form. We look forward to welcoming you in September.

This booklet is a guide to help you to prepare for your intended courses at the start of the Autumn term. Your well-deserved holiday is an ideal opportunity to reacquaint yourself with subjects you have already studied and intend to continue with. It will provide an opportunity to address potential gaps from your Y11 work which will be needed for your A level study. It will also help you to develop an awareness of what any new subjects will involve.

It is vitally important that you develop the good study habits you used in preparation for your GCSE's. A levels will require consistent effort and application and you will be expected to direct your own learning much more in the Sixth Form. A levels are much more difficult than GCSE's and preparation is the key to make the transition successfully.

All Sixth Form students should be well informed and keep up with current affairs, as it will help you gain a broader understanding of where your subjects fit into the 'real world'. Therefore, I urge you to regularly read a quality newspaper or use their online sites (the Guardian, the Telegraph, or the Times), or source similar information from websites such as [www.bbc.co.uk](http://www.bbc.co.uk) and get into the habit of watching current affairs programmes.

On the next few pages you will find advice and activities from your teachers that are relevant to specific subjects.

We all look forward to seeing you on the **Monday 6 September** and expect that you arrive with the tasks completed and ready to immerse yourself in further study.

GCSE results day (**Thursday 12 August**) is when you must confirm your place in the Sixth Form and discuss any issues that may have arisen.

Have an enjoyable summer!

Mrs N Daniels  
Head of Sixth Form



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## Art and Design

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Drawing plays an important role in Art and Design and forms the foundation of the A-Level Course.

TASK 1) What is drawing? Produce a creative A3 presentation including artist examples.

### **TRANSFORMATION**

States of change have always provided a rich source of subject matter for artists and craftspeople. The physical transformation of an object or person through the process of ageing has inspired artists throughout history. Portrait painters are often intrigued with how the process of time has changed their own appearance. The environment is in a daily state of change from dusk to dawn and through the seasons. Some changes are slow and imperceptible, others are sudden and dramatic. Human occupation of the planet results in constant and major alterations to land, sea and cityscape. These changes have inspired many artists.

When artists are working with any material, whether paint, paper or stone, they alter its texture and surface qualities. The digital manipulation of images has revolutionised the way artists and designers can easily distort, amalgamate and transform visual material. With the freedom offered by new technology it seems artists and designers are limited only by the power of their imaginations.

Using ideas from the list below produce the following drawings:

Try to develop ideas that will allow you to work from direct observation or your own photographs that you have taken specially for this theme.

TASK 2) An A2 drawing using watercolour washes and pencil

TASK 3) An A3 experimental drawing using a medium of your choice (biro, charcoal, chalk, oil pastel, marker pen/combination)

- age, growth, birth, restoration
- alter, mutate, revamp or revolutionise
- adornment, rites of passage, weddings, funerals
- cooking, burning, eating, cleaning, repairs, tools
- dressing up, acting, masquerades, make-up, disguise
- demolition, oxidation, erosion, mould, decay, recycling, weathering
- agriculture, transportation, landfill, quarrying, machinery

Please bring this work with you to your first lesson. You will be able to purchase an A3 sketchbook from the department in September for home learning tasks.

**Mrs Grayson**

## Applied Business

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Do you see yourself as the next Mark Zuckerberg or Jeff Bezos, Kim Kardashian or Kanye West? Do you see yourself on the 'Forbes richest list'? Are going to take the business world by storm? With a traditional Business Studies A level, or an A level equivalent in Applied Business, there will be no stopping you!

To prepare over the summer you should:

- Develop your knowledge of 'real world' business issues, which should include reading appropriate newspapers and watching appropriate programmes on TV, including the News, 'The Apprentice', and 'Dragons Den'.
- Collect details on business issues that happen during the summer and have an understanding of how these affect businesses.
- Use the websites below in order to do some further reading around the subject.

Further reading:

- [www.startups.co.uk/success-stories](http://www.startups.co.uk/success-stories) <http://www.bbc.co.uk/news/business>
- <http://data.gov.uk/dataset/socialtrends> - social trends data and changes in spending patterns.
- <http://www.economicsonline.co.uk> - how markets work, and the national and global economy.
- <http://www.think-differently.org>
- <http://www.greatbusiness.gov.uk>
- <https://www.forbes.com/billionaires/> - to see who you are up against!

If you taking the Applied Business Course you should also use Butlin's website to familiarise yourself with the business.

If you have not studied GCSE Business Studies, you should speak to Mrs Reyes who will organise work for you on an individual basis.

**The Business Team – Mrs Reyes, Mr Teasdale and Mr Lavender**

## Applied Science

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### Course information

You will study the AQA Level 3 Extended Certificate in Applied Science course. The specification and other documents can be downloaded from <https://www.aqa.org.uk/subjects/science/applied-general/science>

Whilst there is some overlap with material covered at GCSE in all three science disciplines early on in the course, you will quickly expand your knowledge and understanding of key concepts across Biology, Chemistry and Physics. Like most level 3 courses, there is a broadening of factual content and increased challenge compared to GCSE studies.

The most successful students have been those who have a genuine interest in all the science disciplines and take a healthy interest in science in the world around them. Most importantly of all, self-discipline and an ability to meet deadlines is critical in completing the non-exam assessment units of this course. Ultimately, your enjoyment of the course and your potential success depends on your interest in, and passion for science.

### Applied Science Summer Work

Complete at least 1 option from each of the four sections below:

#### Biology

1. Many people are now opting to follow a meat free or meat reduced diet. On both a personal and global scale, describe the advantages and disadvantages of doing so.
2. Frederick Banting improved the quality of life and life expectancy of millions of people. What did he discover and what role does it play in modern medicine?
3. Biologists love models and creativity. Using household materials, build a model of the structure of DNA.

#### Chemistry

1. In chemistry, we often make standard solutions to use during our investigations. Research how to make a standard solution and then create a risk assessment and a method for making a 1 molar standard solution of copper sulphate.

<https://www.youtube.com/watch?v=iPYyRNjXkgY>

2. The periodic table is a chemist's tool kit, you need to be familiar with how it can help you and what information you can obtain from it, complete the learning mat (given on Induction Day) to ensure you know how to use the periodic table.
3. Titrations are a key part of chemical analysis and they are widely used in industry. Research how to carry out a titration and then use your research to put the method into the correct order (sheet given on Induction Day). Research the uses of titration in two different industrial contexts.

#### Physics

1. Explain in terms of momentum and forces, how seatbelts save lives.
2. Many new-build homes are now fitted with ground source heat pumps. Explain how these work, and why they are likely to become more common during your lifetime.
3. Neil Armstrong holds a remarkable place in human history. Explain how he owed much of his achievement to a man from Lincolnshire with 3 famous laws.

## Thinking Ahead

We hope that many of our students go on to use their Applied Science qualification in later life by enjoying some of the many fulfilling job roles available in the scientific community. To get a flavour of possible career options, research one section of the job roles listed below, focusing on the scientifically-related skills, techniques and experience needed, the roles and responsibilities associated with science personnel within an organisation and the benefits of the scientific roles in society. Produce a poster to display the key information for the following careers:

<b>Section A</b>	<b>Section B</b>	<b>Section C</b>
Biomedical Scientist/Microbiologist	Chemist / Biochemical Analyst	Physicist
Environmental Scientist/Ecologist	Pharmacologist	Sport and Exercise Scientist
Marine Biologist / Zoologist	Material Scientist	Radiographer

**Mr Dowse and Mrs Steele**

## Biology

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### Course information

You will study the new AQA Biology course. The specification and other documents can be downloaded from <http://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402>

Although there is obviously an overlap with the material you have studied at GCSE, there is a significant increase in the volume of factual material to learn, as well as in the requirement for you to be able to apply your understanding to unfamiliar contexts. The most successful students are those who have a genuine interest in the living world, who read widely, enjoy watching wildlife and scientific documentaries on TV and, most importantly of all, show lateral thinking and determination when challenged.

### How can I prepare over the summer?

CGP publish a book called **Head Start to AS Biology** which costs £4.95 from Amazon. If you want a paper copy, be careful to get the 2015 edition, ISBN 978 1 78294 279 5. This provides a very useful reminder of some of the key ideas which will be met again in Year 12, taking you a little bit beyond what you studied at GCSE. There are also a number of very good websites giving a flavour of A-level biology, and getting you thinking, such as:

<http://biologymad.com/master.html?http://biologymad.com/ASBiology.htm>

<http://www.sciencebooksonline.info/biology.html>

(the last one allows you to download free biology books, including Darwin's "On the Origin of Species")

There are lots of excellent popular science books in the school library. We recommend anything by Richard Dawkins or Steve Jones, if you're keen on genetics and evolution, whilst Steven Rose's 'The Chemistry of Life' will suit any budding biochemists.

### Summer Work

**Core task-** Firstly, you should read and complete all of the tasks from the Head start to AS Biology book, which will be shared electronically after the induction day. Existing QEGS pupils will complete these on ClassNotebook whilst those who do not yet have a QEGS username and password will be able to email me Word documents with their answers at [S.Hood@qegs.co.uk](mailto:S.Hood@qegs.co.uk)

**Extension task-** the following questions will give you a flavour of just some of the learning you will experience in Year 12. Prepare concise answers to as many of them as you like (minimum of 3)

- 1) Explain why, when quoting measurements from an investigation, including the **mean** and **standard deviation** is more informative to biologists than just giving the mean alone.
- 2) What is the biological significance of "The Eagle" pub in Cambridge?
- 3) DNA contains genetic information for organisms. What properties does a genetic material require?
- 4) "Many important biological molecules are polymers". Explain this statement and describe 3 types of polymer which are very important in the cells of living organisms (hint: think about the food groups).
- 5) Build a model of DNA using household materials- be as creative as you like! You need to produce a written explanation of what the various parts of your model represent, and how they give the molecule the necessary properties you listed in question 3.
- 6) The phrase "semi-conservative" does not refer to Boris Johnson's house in the suburbs. What biological process DOES it refer to, and why is it so-called?

- 7) Who was the father of the physicist Niels Bohr, and why should our muscle cells be grateful to him when we exercise?
- 8) “Like a fish out of water” is a commonly used phrase, but why **can't** (most) fish survive on land?
- 9) Continuing the watery theme, water is a most unusual substance. Explain how several of its properties have biological importance.

**Mr Hood**

## Business Studies

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Further reading:

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- <http://data.gov.uk/dataset/socialtrends> - social trends data and changes in spending patterns.
- <http://www.economicsonline.co.uk> - how markets work, and the national and global economy.
- <http://www.think-differently.org>
- <http://www.greatbusiness.gov.uk>
- <https://www.forbes.com/billionaires/> - to see who you are up against!

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**The Business Team – Mrs Reyes, Mr Teasdale and Mr Lavender**

## Chemistry

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### Course information:

The course that you will follow is **AQA A Level Chemistry (7405)** and you will find the course specification and other useful information on the exam board website:

<http://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7404-7405>

### How can you prepare over the summer?

Chemistry is an interesting and diverse subject, those pupils who demonstrate commitment and perseverance are among the most successful at A level. The course builds upon the knowledge you gained at GCSE and if you want/need to review your GCSE knowledge and ensure that all the key ideas are in place before September you can use the revision guides that you probably already have or CGP publish a book called 'Head Start to AS Chemistry'. This is available from [www.cgpbooks.co.uk](http://www.cgpbooks.co.uk) at a cost of £4.95. There is a jump between GCSE and AS level Chemistry and this book helps to bridge the gap. It covers some of the areas that you may have found difficult or simply forgotten from your GCSE courses, for example balanced symbol equations, bonding and properties of different structures, calculations, equilibria, etc.

To get an idea of what an advanced level Chemistry course entails try browsing some of the following websites:

<http://www.chemguide.co.uk>

<http://rod.beavon.org.uk>

<http://www.knockhardy.org.uk/sci.htm>

<https://edu.rsc.org/student>

<https://www.stem.org.uk/catalyst>

<http://www.periodicvideos.com/index.htm>

If you find any other sites that you think may be useful to others please let me know and I'll add them to the list, you can send the links to [k.johnson@queenelizabeths.co.uk](mailto:k.johnson@queenelizabeths.co.uk).

### Summer Tasks:

As well as reviewing your GCSE studies using the progression booklet that was handed out during the induction day, you need to complete the following task, and bring your work to our first Chemistry lesson in September.

We will begin our studies on familiar territory by reviewing and extending your knowledge of '**Atomic structure and then Formulae, equations and amounts of substance**'. The ideas learnt in the first couple of topics will be required throughout the course and you will need to be confident enough to apply them in many different contexts.

As you will be aware, the study of Chemistry involves extensive knowledge of atoms, their constituent parts and the effects that these have on the behaviour and properties of a multitude of materials.

If you were asked to draw the structure of an atom, what would you draw?

Our perception of the atom has developed over a long period of time, since around 460BC, culminating in the model that we use today. This is due to clues or evidence obtained from scientific experiments. You will extend your knowledge of atoms and their behaviour during the A level course but I would like you to begin

by charting the ideas that led to our current position of understanding. In all branches of science it is important to recognise the contributions of our predecessors and the way in which they linked ideas together, building on the work done by others to produce the models that we are familiar with today.

**Task:**

You need to research and summarise the development of atomic theory from the very beginning to the present day. Base your work around the scientists listed below, all of them need to be included although the amount of detailed information given about each will vary.

You should, at the very least, include approximate dates of key developments, information on the contribution that each scientist made to atomic theory and any relevant detail on experimental procedures and/or the methods used to evidence their ideas. The list of scientists is not exhaustive and you may feel that the work of others needs to be included too.

- John Dalton
- Henri Becquerel
- Neils Bohr
- J. J. Thomson
- Louis deBroglie
- Democritus
- James Chadwick
- Werner Heisenburg
- Erwin Schrödinger
- Ernest Rutherford
- Wolfgang Paul

Your work may be presented in any suitable format so long as it contains the required information, but it must not be plagiarised and all sources must be clearly and correctly stated. You must bring your work, and be prepared to present/discuss it, during your first Chemistry lesson in September, and remember that this could be on your first day back in school!

Use Microsoft Teams or email to seek support if you have any problems or questions. I hope that you have an enjoyable summer and look forward to seeing you refreshed and ready to start work in September.

**Mrs K Johnson & Mrs M Steele**

## Computer Science

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Showing an interest in computing must mean that you are interested in how technology works and it probably means that you spend quite a bit of time tinkering with computers. However, do you really know what is happening in the processor when you are writing a document, surfing the web or playing a game?

To help prepare for September:

1. Write a program that checks which numbers from a series of numbers entered by the user are prime numbers.

The program should get a number from the user and then display the messages:

- “Not greater than 1” if the number entered is 1 or less
- “Is prime” If the number entered is a prime number
- “Is not prime” otherwise

The user should then be asked if they want to enter another number and the program should repeat if they say that they do.

A prime number is a positive integer that will leave a remainder if it is divided by any positive integer other than 1 and itself.

You may assume that each number entered by the user is an integer.

2. Research what is meant by a floating point binary and be able to calculate from a given denary value into a normalised floating point number

**Mr M Johnson**

## Design and Technology: Product Design

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You are interested in taking A Level Design and Technology - an excellent choice! The course is designed to develop your understanding of products and materials across all aspects of the Design and Technology spectrum.

The course is broadly split into two sections the theory of design and manufacturing and a final project.

Year 12 will therefore be split into the development of skills and knowledge that relate to the final exam across resistant materials, cards, textiles and systems. It will also focus on the development of skills that will support students in the development of their final project. This will be done through the focus on a wide range of design and practical skills.

To prepare for the course you should do a number of things over the summer.

- Look at a range of Products that are produced using a range of different materials, where possible photograph them in use and make notes about their suitability. These will be discussed in the first week of term.
- One element of the course focuses on the ethical and social impact of design and manufacturing. Be prepared to discuss the social and ethical impact of products for developed countries being manufactured in developing countries.
- Practice free hand 3D isometric projection as much as you can over the summer. Isometric grids are available to download online. They can be printed and traced through to support you with your sketching practice in the early stages of your practice.
- Read up on all of the theory relating to Design and Technology that you can. [technologystudent.com](http://technologystudent.com) is a very useful website that gives a good level of entry level theory that relates to all aspects of design and technology and should support the development of a broad level of understanding.
- How it's made is a very useful collection of clips that are readily available on you tube. I would recommend you watch as many as you are able to.
- Try to visit a museum that has a good design collection – the V&A museum and Design Museums in London are particularly good.
- Use magazines and features from newspapers for examples of product ranges, the Sunday Times Style supplement is quite good for fashion products and the i often has a feature looking at the 10 best of a wide range of different products.

Work on the first project will start as soon as you return! We will be commencing with the design and manufacture of a light to your own design. The light wants to be as creative and innovative as possible. As a result, I would start the process of looking at lights and lighting throughout the summer. If you see something innovative, creative or just a little different while you are out and about. Take a picture of it or make a small sketch.

Finally, I would buy a small notebook that you can keep in your pocket easily. You should then start to get into the habit of jotting down your ideas whenever and wherever you have them. Good design doesn't necessarily happen in the classroom. Inspiration could hit you anywhere.

**Mr G Thompson**

## Economics

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It seems that the subject of economics is dominating every news programme at the moment. The UK's Brexit deal has paled into insignificance compared to the impact of the global pandemic. Not only is this affecting the macroeconomic policy decisions of governments around the world, it also has had a very real microeconomic effect upon local businesses throughout the various lockdowns. It is an exciting time for you to have chosen to start your study of this subject.

Economics does involve these national and international issues, but is also concerned with issues that are related to the decisions businesses make and also the decisions you make as a consumer.

To help prepare for September try to become familiar with economic issues:

- Follow the news and be prepared to discuss the key economic events of the summer
- Visit the BBC website – it covers many useful topics related to economics
- Sign up for email alerts from Tutor2U Economics @ <https://www.tutor2u.net/economics>
- Go to your local library or purchase a copy of *The Undercover Economist* by Tim Harford. Read it and learn!

We will be using the material and understanding you have gathered in the first few lessons in September.

**The Business Team – Mrs Reyes, Mr Teasdale and Mr Lavender**

## English Language

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We follow the Eduqas syllabus for English Language, available here:

<https://www.eduqas.co.uk/media/fxexsd5/wjec-eduqas-a-level-english-language-specification-from-2015.pdf>

A Level English Language is very different from GCSE Language, and the subject covers a wide range of topics you will not have come across before. In the Induction Day lesson, we will provide you with a booklet of resources and links that introduce you to some of the topics and concepts you will study in Y12, which we summarise here.

### How can you prepare for September?

Start by reading the article 'Becoming an A Level Language Student – A Quick Guide'.

Next, follow the links in the booklet to explore the information for Component 1. The links cover the following topics – make notes on the key ideas in each one:

- Standard and Non-Standard English
- Thirty dialects in the English Language
- Stormzy's Accent and Multicultural London English
- Language and Occupation
- Spoken Language transcripts

Then in Component 2, we look at the impact that other languages and countries have had on the development of the English language. To start, watch the collection of 'History of English in 10 minutes' videos from the Open University on YouTube, starting here: <https://www.youtube.com/watch?v=r9Tfbegyu2U> Choose one of the ten areas covered in the overview that interests you and find out more about it – for example more details of any major historical events, how the lives of the English were affected, specific words that we adopted or how our language changed as a result. Consider presenting this in a creative way e.g. a detailed poster or work for display, PowerPoint, leaflet, short film...

Finally, as you will be introduced to quite a lot of new linguistic terminology in Year 12, specific to the different topics, make sure that you have consolidated your knowledge of the basic grammar terms before you start, which are very important at this level.

There are a number of online resources of varying length and detail:

<https://www.luc.edu/literacy/grammar.shtml>

<https://www.thoughtco.com/the-top-grammatical-terms-1692378>

<https://krusamarnh.files.wordpress.com/2014/08/english-grammar-terms-and-examples.pdf>

If you are a current QEGS student, there are also a number of very thorough videos and PPTs that explain all the key grammar terms you will need. They are on the i:drive (English/Year 12/EdX Grammar video files) – new students will of course have access to these from September. If you prefer a book, a concise grammar dictionary will cover the basics as well as a wide range of other useful terms.

For further information on any aspects of the course or if you have any questions about resources, email Mrs Hull [c.hull@qegs.co.uk](mailto:c.hull@qegs.co.uk)

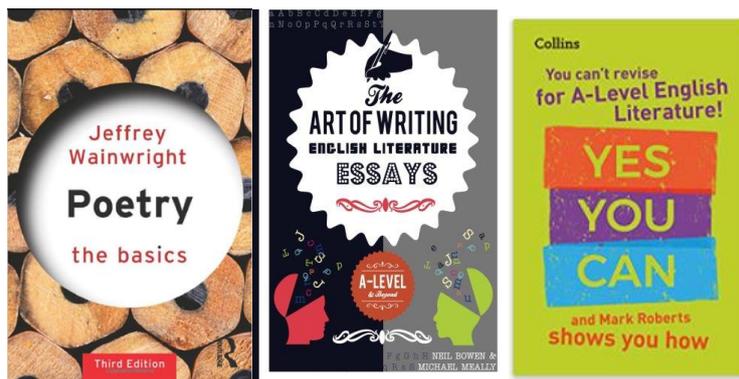
**Mrs Hull**

## English Literature

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An enjoyment of reading widely is, of course, vital for A Level Literature, and the best way to prepare for the start of this course is to immerse yourself in a range of contemporary and classic literature. The list below includes a range of 'classics' as well as critically acclaimed 20<sup>th</sup> century and contemporary fiction but the list is not exhaustive, and you are free to read other texts - your English teachers, Mrs Elliott (the Library Officer) and current A Level students can recommend others. Before you start your A Level studies in September, you are expected to read at least two novels plus a collection of poems and/or a play (either as a production or a text). Brief notes on your personal responses to what you have read need to be brought to the lesson in September.

In the Induction Day lesson, you will also be given a booklet with these reading lists as well as a number of articles to read. These articles introduce you to the study of Literature at this higher level and you may want to have a go at some of the creative tasks in Andrew McCallum's article 'What is Re-creative Writing?'. Furthermore, as a result of the DfE / exam boards' decision to reduce the number of texts you were required to study for GCSE (plus any further changes as a result of centre assessed grades), you may have gaps in your knowledge of at least one out of Shakespeare, poetry or 19<sup>th</sup> century literature. Although we don't feel that any curriculum changes you have experienced will impact on your ability to succeed in English Literature, you may find the following guides useful if you want to reinforce your knowledge of aspects of English Literature, or your skills.



### Novels

**Adichie** *Purple Hibiscus, Half of a Yellow Sun*

**Atwood** *The Handmaid's Tale* \*, *The Blind Assassin*

Austen *Sense and Sensibility, Pride and Prejudice, Emma*

Bronte sisters: *Wuthering Heights*\*, *The Tenant of Wildfell Hall, Jane Eyre*\*

**Burgess** *A Clockwork Orange*

Dickens *Hard Times, Bleak House*

**Doerr** *All The Light We Cannot See*

Dostoevsky *Crime and Punishment*

**Evaristo** *Girl, Woman, Other*

**Faulks** *Birdsong, Charlotte Grey*

**Fitzgerald** *The Great Gatsby*\*

**Forster** *A Room with a View, A Passage to India, Howards End*

**Fowles** *The Collector*

**Guterson** *Snow Falling on Cedars*

Hardy *Tess of the D'Urbervilles, Jude The Obscure*

Hawthorne *The Scarlet Letter*

**Hemingway** *For Whom the Bell Tolls*

**Hosseini *The Kite Runner, A Thousand Splendid Suns***  
**Ishiguro *Klara and the Sun, Never Let Me Go***  
 James *Washington Square*  
**Kesey *One Flew Over the Cuckoo's Nest* \***  
**Levi *Small Island***  
**Marguez *A Hundred Years of Solitude***  
**McEwan *Atonement*\*, *Enduring Love***  
**Miller *The Song of Achilles***  
**Morrison *Beloved***  
**Murakami *Norwegian Wood***  
**Obrecht *The Tiger's Wife***  
**O'Farrell *Hamnet***  
**Ondaatje *The English Patient***  
**Plath *The Bell Jar***  
**Roy *The God of Small Things*\***  
 Shelley *Frankenstein*  
**Ali Smith *Brick Lane***  
**Zadie Smith *White Teeth, NW, On Beauty***  
**Spufford *Golden Hill***  
**Steinbeck *East of Eden, The Grapes of Wrath***  
**Stockett *The Help***  
 Stoker *Dracula*  
 Tolstoy *Anna Karenina*  
 Twain *Huckleberry Finn*  
**Walker *The Colour Purple*\***  
 Wilde *The Picture of Dorian Gray*  
**Woolf *Mrs Dalloway, To the Lighthouse***  
**Yaa *Homegoing***  
**Zafon *The Shadow of the Wind***  
 \*may be used as an exam text and/or is prohibited for coursework

### Modern poets

You can buy / borrow collections or use online sites (like [www.poetryfoundation.org](http://www.poetryfoundation.org) to search for individual poems by these poets (or any others – search for contemporary poets):

Carol Ann Duffy, Audre Laude, ee cumming, Fatima Asghar (*If They Come For Us*) , Grace Nichols (e.g. *The Insomnia Poems, The Fat Black Woman's Poems*), Elizabeth Bishop, Maya Angelou, Anne Stevenson, Sylvia Plath, Philip Larkin, Emily Dickinson, Simon Armitage.

### Drama

There are a number of play texts available in the English department but we highly recommend you watch plays rather than (or in addition to) reading them, in order to experience a greater sense of stagecraft and performance. You can rent individual plays here: <https://www.digitaltheatre.com/consumer> and we also currently have free temporary access for our students to National Theatre productions here: <https://www.dramaonlinelibrary.com> Username: 3PmP6Q9/aP | Password: 6Ytw5Ay\*9+

National Theatre productions we particularly recommend are: *Jane Eyre, The Cherry Orchard, Antigone, Small Island, She Stoops to Conquer, A Streetcar Named Desire, any Shakespeare...*

Any questions, email [c.hull@qegs.co.uk](mailto:c.hull@qegs.co.uk)

## Geography

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**RGS defines geography as ‘the study of Earth’s landscapes, peoples, places and environments. It is, quite simply, about the world in which we live.’**

Geography is unique in bridging the social sciences (human geography) with the natural sciences (physical geography). Human geography concerns the understanding of the dynamics of cultures, societies and economies, and physical geography concerns the understanding of the dynamics of physical landscapes and the environment.’ Thus, contemporary urban environments represent the human element and hot deserts the physical section.

The many aspects of the subject are all around you and many current events clearly have a geographical dimension.

For your work over the summer:

- Find out about the concept of ‘changing places’. Read the article published by RGS – first three places and end of page 6 on clone towns. [Changing Places - Royal Geographical Society](#)
- Collect newspaper items giving up-to-date information on geographical topics/issues such as:
  - Natural hazards e.g. extreme weather, hurricanes, earthquakes, volcanoes, wildfires
  - Regeneration in towns and how places change such as due to the approval of the third runway at LHR
- Access the England and Wales census website: <https://www.nomisweb.co.uk/>

Become familiar with the different types of information available e.g. age structure of population, their health, characteristics and the different scales e.g. local authority, super output areas. Find out information about the place you live in – search via post code.

Visit <http://hdr.undp.org/statistics> and realise the wealth of information available by country – and the extent to which different countries at different stages of development vary.

**Mrs J Canavan**

## History

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“The study of history is in the truest sense an education...” **Polybius**

“Histories make men wise.” **Francis Bacon**

“Not to know what has been transacted in former times is to continue always as a child.” **Cicero**

“History is the most dangerous substance that the chemistry of the intellect has created...” **Paul Valery**

Congratulations on choosing History for your 6th form studies. The course will cover some of the most momentous and dangerous events in early modern and modern times; the Russian Revolutions, Britain’s adoption of concentration camps, the origins of widespread state control in Britain, Able Archer 83 (how Britain came within five minutes of World War III), the significance of the English Revolution, how Napoleon was defeated and much, much more. The importance and impact of controversial figures such as Isaac Newton, the Duke of Wellington, Nelson, Florence Nightingale, Stolypin, Trotsky, Douglas Haig and Ronald Reagan will be studied too.

Students will be invited to question, debate and reject historical arguments, whilst being urged to present their own alternatives. History will encourage students to develop their analytical, evaluative, and research skills so they will not only understand the past, but more importantly appreciate how views on it are constructed and justified. Students will come to appreciate that History is about opinions and interpretations, and that “facts” do not really exist!

In order to tackle and reflect upon the subject, students will need to quickly develop a basic background understanding of the two topics in Year 12, both of which are likely to be new to them.

Your summer task is as follows:

### **Russia in Revolution 1894-1924**

Your summer task is to define the following words/phrases. Some might have more than one definition so make sure you stick to the stated time period.

1. BOLSHEVIK
2. MENSHEVIK
3. AUTOCRAT
4. TSAR
5. RUSSIFICATION
6. SOVIET
7. DUMA
8. MARXISM
9. PEASANT
10. SOCIALISM
11. COMMUNISM
12. CAPITALISM
13. REVOLUTION
14. COUP D’ETAT

**Mr G Claxton**

## Languages (French)

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### A-level French

Learning a language is a skill and skills need practice. So, from now until September, there are things you can do to brush up your French.

On the induction day you will be given some grammar exercises on verb endings, tenses, agreements etc. We will do a mini quiz too so you can identify which you need to work on during the summer.

Here are some **TV programmes** you can watch on Netflix – you could a) have the French audio with English subtitles or b) have the French audio with French subtitles – obviously the second option will be harder but will be more authentic. You could then write a review of one of the programmes you watched.

<https://www.ef.com/wwen/blog/language/10-netflix-shows-learn-french/>

If you have SKY, then channel 799 is a French TV channel. Alternatively, you can find this on Virgin Media on channel 825. You can find listings here: [www.tv5.org](http://www.tv5.org) including newflashes in French.

Continue reading the **book** that you chose in May – I'm sure it will be challenging but persevere it will be worth it in the end.

You could also try listening to the **radio**. Maybe have [www.frenchradiolondon.com](http://www.frenchradiolondon.com) on in the background. This is French radio for Francophones currently living in London, so the topics will often be familiar. If you want a more authentic radio station, try: <http://www.listenlive.eu/france.html> Take your pick.

In terms of **music** you could follow some artists on Spotify <https://www.fluentu.com/blog/french/french-music-on-spotify/>

Watch the **news** in French <https://fr.euronews.com/> or <https://www.newsinslowfrench.com/> – this might be tricky but it keeps you in the loop with up-to-date news in France which is something you should start doing with A-Level.

Then there are smaller things you could do like change your phone into French, follow French people on YouTube/TikTok/Twitter etc so you have some French stuff in your feeds.

Bonne chance et bonnes vacances,

Miss Meakin

## Mathematics

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Mathematics is not only an interesting subject to study in its own right, but it is very useful for a wide range of other subjects and careers. A level Mathematics builds upon the work covered at GCSE. The aim of the course is to develop mathematical and analytical abilities in terms of pure mathematics and its application. In particular, you need to be confident in the following topics, as they are the key units in the first year's modules:

- \* Surds/indices
- \* Algebra
- \* Sine rule
- \* Cosine rule
- \* Trigonometry
- \* All aspects of graph work

If you are not confident in these areas, you will find the course very challenging. As preparation for the course, you will have some basic skills exercises for you to do over the summer that will be given out over TEAMS as detailed below. These tasks must be completed by the first lesson in September.

The course for Mathematics is now linear, with all external examinations at the end of the course. There will be three papers for the Mathematics Course to include Pure Mathematics, Mechanics and Statistics.

You **will** require a new calculator which must include the following features:

- an iterative function (the ans button which your current calculator should already have)
- **the ability to compute summary statistics and access probabilities from standard statistical distributions**

Your calculator must be able to calculate Binomial and Normal probabilities directly from values. The minimum standard for this is an advanced scientific calculator, such as the Casio 991EX ClassWiz or the TI-30X Pro; however, graphical calculators have this facility along with the additional advantage of being able to plot the graphs of functions. We will be able to acquire these calculators for you to purchase in September, but if you decide to obtain one yourself, please make sure it has the minimum functions stated above. You are not allowed to use a calculator with algebraic capabilities (CAS) in the examinations, however, so you should avoid purchasing one of these.

**Summer Work;** I will be setting various tasks via TEAMS to cover key skills required for the course. Please ensure you check TEAMS regularly for the tasks and complete them to the deadlines given. All tasks must be completed by the first lesson in September.

In the meantime, if you have any questions, please talk to any of the teachers in the maths department.



**Miss W Reid**

## Philosophy and Ethics (Religious Studies)

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A Level Philosophy and Ethics (Religious Studies) gives students the opportunity to explore in more depth the philosophical, ethical and religious questions that keep us awake at night!

***Is there a God? Why is there evil and suffering? Who decides what is right and wrong? What makes an action 'good'? If we can save hundreds of lives, should we sacrifice a few? What is enlightenment? What is happiness? Is there life after death? What is the soul? Is religious experience real? Does karma exist? To name but a few!***

**Through the study of age old philosophical questions** and the thinkers who have influenced western philosophy and Christianity, students can develop an understanding and appreciation of religious and philosophical thought and its contribution to individuals, communities and societies. considering old and new ethical questions, students will be able to apply critical thinking and analysis to dilemmas that continue to challenge people today. Students should be willing to adopt an enquiring, critical and reflective approach to the study of religion and reflect on and develop their own values, opinions and attitudes.



By

**Through the study of Buddhism**, students can discover how eastern thought has influenced both ancient and modern culture and learn more about the practices which shape and express the Buddhist identity. Through the story of Siddhartha Gotama, students can discover a rich and fascinating insight into philosophical, ethical and religious questions from a Buddhist perspective discover how the insights gained by the Buddha have developed over time.



and

**In preparation for A level Philosophy and Ethics**, it would be useful to have some background knowledge. A very good starting point for students of philosophy is Jostein Gaardner's novel 'Sohie's World', which will take you through the key developments of philosophy with a twist at the end! For ethics, it is useful to read and keep up to date with debates in the news on ethical issues such as abortion rights, the right to die (euthanasia), LGBT issues, ethical issues in business and the environment. For Buddhism a detailed knowledge of the story of the Buddha is useful. The ThoughtCo website and Clearvision website are very good and accessible for beginners.

**Mrs J Johnson**

## Physical Education

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### Summer task:

#### Task 1

In order to get you thinking about A' level PE, you are to complete the following task and hand it in during the first lesson of Year 12:

'I'm healthy but am I fit?' Discuss

Your work should be around 500 words.

#### Task 2

##### Specialised training

Research and analyse (what's good/bad about it? Who is it best for?) the following types of training;

SAQ

Plyometrics

PNF

It is a requirement that all candidates on this course play sport regularly outside of school hours - this must be at a formal club or practice. So, over the summer do try to keep up your standards of performance in your favoured sport.

**Mr Grayson**

## Physics

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### What can Physics offer you?

One of the great things about Physics is that it is all around you. To find it only requires an open mind.

In the Physics department we want you to arrive in the Sixth Form refreshed and enthusiastic. We want you to have a curious mind and to question the things you see and experience in everyday life.

The Physics course should allow you to gain a better knowledge and understanding of the world, from ATOMS (and the particles that form them) to the UNIVERSE (and the stars, galaxies and 'dark matter' in it). Using physics principles in a wide variety of practical applications will feature strongly.

Theory and experimental work will be important throughout the course, and you will develop practical and mathematical skills, plus the ability to think logically.

### Some things to do before September

#### 1 General Reading

Why not do some reading about physics and related topics? You could pursue some of the themes that will feature in the course, including cosmology, nuclear physics, quantum physics, and medical imaging techniques. Or perhaps read about famous names from the past and the present, such as Einstein, Newton and Feynman. There are plenty of good books around from which to choose something that might interest you and be relevant to your sixth form studies. A few examples are given below.

From the series of books by John and Mary Gribbin (published by Constable) on the lives of scientists, *Curie in 90 minutes*, *Einstein in 90 minutes*, and so on, including *Galileo*, *Newton*, *Faraday*, and *Halley*

*Longitude* by Dava Sobel, telling the story of how clocks were made that would keep accurate time at sea, thereby allowing sailors the ability to calculate their longitude accurately, and hence navigate their way around the world's oceans. Dava Sobel has also written about Galileo and his imprisonment for his belief in the Copernican heliocentric model, called *Galileo's Daughter*.

*Six Easy Pieces* by Richard Feynman (published by Penguin), particularly the first two chapters

*Surely You're Joking, Mr Feynman! (Adventures of a curious character)* by Richard Feynman, and the sequel, *What Do You Care What Other People Think?* (published originally by Unwin Paperbacks). The second of these recalls Feynman's contributions to making the first atomic bomb during WW2, the tragic circumstances of his first marriage, and how he was responsible for solving the cause of the Challenger explosion in 1986 shortly before his death.

*In Search of Schrödinger's Cat*, and the sequel *Schrödinger's Kittens (and the Search for Reality)*, both by John Gribbin, which tackle quantum theory, including the debate about describing light and electrons as waves or particles.

*The Case of the Missing Neutrinos*, also by John Gribbin (published by Penguin)

*In The Beginning (The Birth of the Living Universe)*, again by John Gribbin, on how we view the Universe and our place within it.

*Asimov's New Guide to Science* by Isaac Asimov was published in its fourth edition in 1984. It's a good read, covering both the physical and biological sciences, written by one of the twentieth century's leading scientists and writers. Well worth the effort involved in finding it.

Books that give a good introduction to cosmology include *Big Bang* by Simon Singh and *Measuring the Universe: The Historical Quest to Quantify Space* by Kitty Ferguson.

$E = mc^2$  by David Bodanis deals with Einstein's most famous equation and gives some background information about his life and work.

Andrew Smith's *Moon Dust* finds out how visiting the moon between 1969 and 1972 affected the astronauts' lives afterwards.

Patrick Moore has played an important part in popularising astronomy in this country and across the world, and NASA used his studies of the Moon when they were planning the Moon landings. This, and much more, is told in his autobiography, called (with great originality!) *Patrick Moore, An Autobiography*.

## 2 Tasks to complete by the first lesson in September

### A INTRO BOOKLET

You will be given a booklet during the induction day lesson, which will need to be completed and returned on the first lesson. This will include questions on defining quantities, recall of GCSE equations and appreciating the scale of the world around us.

### B READING

Physics encompasses a whole range of areas, from cosmology and cold temperatures, to quantum mechanics and medicine. You should do some independent reading of one area that interests you and produce a 300 word synopsis of this. You could use one of the suggested books, one of your own choosing or a web based resource. Remember to acknowledge the original material and any other reading completed to support your interpretation.

## 3 Investigate 'online' resources for Physics

There is a vast amount of information on the Internet, a lot of it fascinating and up-to-date. If you have a question, you might find the answer there! Three web sites are given below. Try to find out what is available for Physics on 'the net'.

<http://www.nasa.gov/>

for the main NASA site, with news, pictures and the rest

<http://www.iop.org/tailored/students/>

this is free for students to join and will get you access to digital resources and news.

<http://antwrp.gsfc.nasa.gov/apod>

for pictures from around the universe (apod = 'astronomy picture of the day')



Mr R Ainsworth

## Sociology

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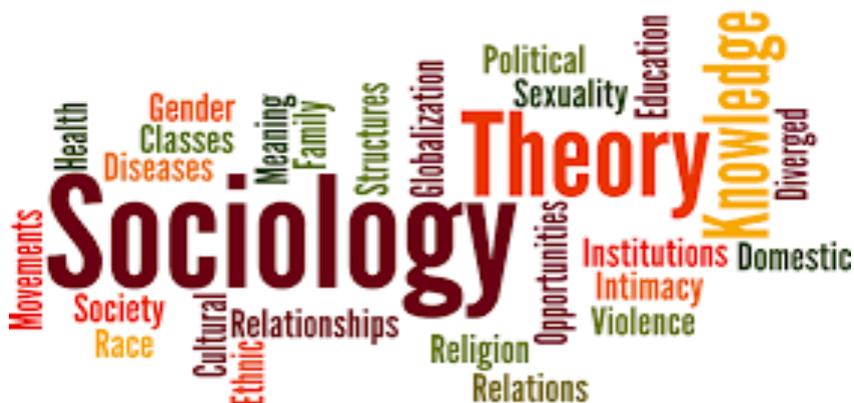
Are you endlessly fascinated by people? Do you ever wonder why, in a wealthy society poverty exists or why, in the 21st Century, most of the top jobs are still carried out by men even though women now gain better exam results?

If this description fits you, then you have chosen a good subject to study in the 6th form. Studying Sociology is intellectually stimulating and demanding, as the theories and concepts can be complex. You will be expected to look at what you see with 'fresh eyes' and will have to keep an open mind at all times as you will be challenging preconceived ideas and prejudices in favour of objectivity.

**What is sociology?** (from [sociology.org](http://sociology.org))

- **Anthony Giddens** ("Sociology", 1989) provides the following general definition:  
"Sociology is the study of human social life, groups and societies. It is a dazzling and compelling enterprise, having as its subject matter our own behaviour as social beings."

The scope of sociology is extremely wide, ranging from the analysis of passing encounters between individuals in the street up to the investigation of world-wide social processes".



## Useful websites

- AQA - Example Assessment Material -<http://www.aqa.org.uk/subjects/sociology/asand-a-level/sociology-7191-7192/assessment-resources>
- AQA student guide <http://filestore.aqa.org.uk/resources/sociology/AQA-7191-7192-FLYER-OE.PDF>
- Crash Course Sociology. - What is Sociology?  
<https://www.youtube.com/watch?v=YnCJU6PaCio>
- Thinking Aloud R4 Wednesdays 4:00pm  
<http://www.bbc.co.uk/programmes/b006qy05> (Sociology Programme)
- He for She Campaign - <http://www.heforshe.org/>
- The Guardian/Observer newspaper [www.guardian.co.uk](http://www.guardian.co.uk)
- The Sociological Imagination (Ted Talk)  
<http://sociologicalimagination.org/archives/tag/ted-talks>
- Violence against women—it's a men's issue: Jackson Katz at TEDxFiDiWomen (TedTalk) <http://www.youtube.com/watch?v=KTvSfeCRxe8&safe=active>
- Richard Wilkinson: How Economic Inequality Harms Societies (TedTalk)  
[http://www.ted.com/talks/richard\\_wilkinson](http://www.ted.com/talks/richard_wilkinson)
- <https://www.youtube.com/watch?v=i9aSp9bFmMg>  
Poor Kids (Poverty Documentary) - Real Stories

## Task 1: Famous Functionalists

### Introduction to **Functionalism**:

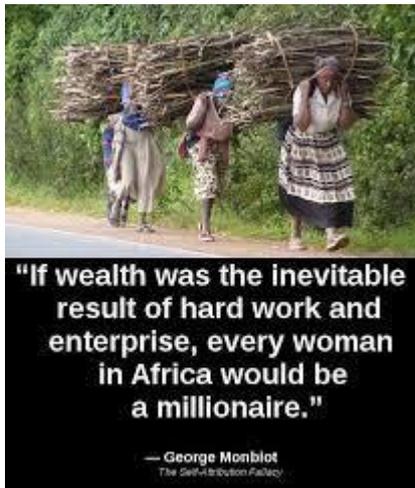
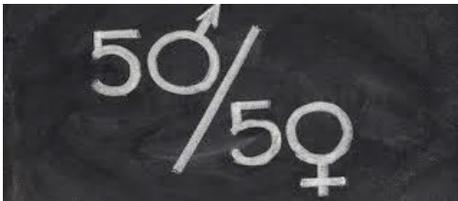
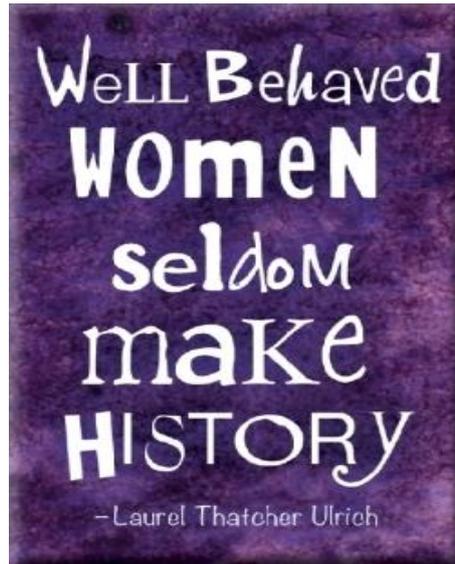
- <https://www.youtube.com/watch?v=5jOZqVnQmdY>  
<https://www.youtube.com/watch?v=0bT298xw7QO>



1. **Research Functionalism** and produce a fact sheet outlining the “**Organic Analogy**”. What is it and how does it explain society.
2. Who are the famous Functionalists- write a sentence which sums them up.
3. Write Definitions for **Free Will** and **Determinism** and explain the two sides of this argument.
4. Find other relevant material to help you.

## Task 2: Fiery Feminists

1. Research **Feminism** (Type 'What is Feminism' into YouTube) and produce a fact sheet outlining feminism is. Provide definitions of the key terms e.g. patriarchy and the different kinds of feminists
2. <https://www.youtube.com/watch?v=c9SUACnIVQ4> Emma Watson speaking to the UN
3. <https://www.youtube.com/watch?v=SbFhOXapQBk> What It Means To be a Feminist

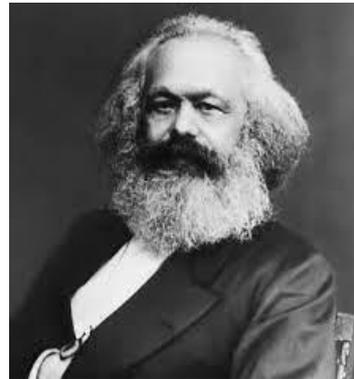
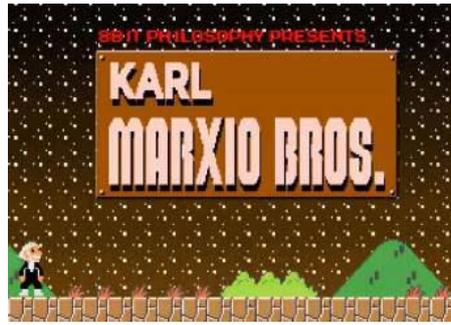


4. Research examples of gender inequality within the UK in contemporary society. For example think about family, employment, politics, education, health, wealth, religion etc.

5. Provide a list of at least 3 examples on your fact sheet

### Task 3: Marvellous Marxists

1. Watch youtube clip:
  - a. <https://www.youtube.com/watch?v=z3eOb6YI1s2> Define all key words on the video clip.
  
2. Research Marxism and produce a fact sheet outlining the main arguments including the difference between the bourgeoisie and the proletariat.
  
3. 4. Research examples of class inequality within the UK in contemporary society. Think about health, education, employment, housing etc. Add at least 3 examples and if possible, explanations of these to your fact sheet



#### Your final summer task is to:

1. Find workable and understandable definitions for the following sociological concepts:

Attitudes	Social Control
Consensus	Social Construction
Culture	Social Order
Gender	Society
Norm	Values
Socialisation-primary and secondary	

Make sure they are sociological definitions NOT just general dictionary definitions, or they will be incorrect. You will find it helpful to give examples also.

2. Write an explanation about **how you have learnt to 'fit into' society** and who or what has played a role in enabling you to effectively get on in the world you live in. **You MUST use the words above and highlight them in bold in your text.** The definitions and the explanation both need to be **typed out**, and you will need about a side of writing for the explanation.

Happy holidays and I look forward to seeing you all in September!

**Miss B Allen**

<b>9.00 – 9.25</b>	<b>Registration; Welcome and talk: Head Teacher; Head of Sixth Form and current students in Hall</b>				
<b>9.25 – 10.05</b> <b>Block C</b>	<b>Sociology in Norbury Sociology</b> Miss Allen	<b><u>DT</u> in DTRM</b> Mr Thompson	<b>Geography in Norbury Maths</b> Mrs Canavan	<b>French in Norbury Languages</b> Miss Meakin	
<b>10.15 – 11.10</b> <b>Block E</b>	<b>Economics in B1</b> Mr Lavender	<b>PE in Norbury Soc</b> Mr Grayson	<b>Art in Art Room</b> Mrs Grayson	<b>Computer Science in Norbury History</b> Mr Johnson	<b>Maths in Norbury Maths</b> Miss Reid
<b>BREAK</b>					
<b>11.35 – 12.30</b> <b>Block B</b>	<b>English Literature in Norbury English</b> Mrs Hull	<b>Physics in Chemistry Lab</b> Mr R Ainsworth	<b>Business in B2</b> Mr Teasdale	<b>Philosophy and Ethics (RS) in E2</b> Mrs J Johnson	<b>Applied Science in P2</b> Mr Dowse
<b>LUNCH – buffet / picnic in Norbury garden</b>					
<b>1.30 – 1.40</b>	<b>Re-register in the Hall</b>				
<b>1.40 – 2.30</b> <b>Block D</b>	<b>Maths in Norbury Maths</b> Miss Reid	<b>Biology in Biology Lab</b> Mr Hood	<b>English Language in Norbury English</b> Miss Pafamow		
<b>2.40 – 3.35</b> <b>Block A</b>	<b>Business and Applied Business joint session in B2</b> Mr Teasdale	<b>Chemistry in Chemistry Lab</b> Mrs K Johnson	<b>History in Norbury History</b> Mr Claxton		
<b>3.40</b>	<b>END OF DAY</b>				