

# **WESTCLIFF HIGH SCHOOL FOR BOYS**



## **ACHIEVING SUCCESS AT GCSE: A Parent's Guide**

2020 - 2022

# CONTENTS

Page No.

<b>I</b>	<b>Introduction</b> .....	1
<b>II</b>	<b>Creating the Right Environment for Home Study</b> .....	1
<b>III</b>	<b>Music and Television</b> .....	1
<b>IV</b>	<b>Using the Computer</b> .....	2
<b>V</b>	<b>Effective Homework Routines</b> .....	2-3
<b>VI</b>	<b>The Student Planner</b> .....	3-4
<b>VII</b>	<b>Extra Advice for Helpful Parents</b> .....	4-5
<b>VIII</b>	<b>Subject Specific Topic and Coursework Guide</b> .....	5
	• English Language.....	6
	• English Literature .....	6
	• Mathematics .....	7
	• Further Mathematics .....	8
	• Biology .....	9-10
	• Chemistry .....	10-12
	• Physics .....	12-13
	• Art & Design (Fine Art) .....	14
	• Computer Science .....	15
	• D&T – Product Design .....	16-17
	• Economics .....	18-19
	• French, German, Spanish.....	20
	• Geography .....	21-22
	• Geology .....	23
	• History .....	24
	• Music .....	25
	• Physical Education .....	26
	• Religious Studies .....	27-28
	• Calendar of Coursework & Non-Examined Assessments .	29

## **I INTRODUCTION**

It is a well-established fact that pupils make the most progress when they are actively supported in their personal and academic endeavours by their parents. Moreover, when schools work in partnership with parents, communicating clearly their expectations of pupils and precisely how these can be achieved, the chances of attaining the desired educational goals are greatly improved.

The aim of this booklet is to create a solid understanding between the School and its parent body of exactly what pupils must do if they are to reach their full potential at GCSE. With this in mind, the primary intention is to offer advice to parents about how to assist their sons that is both pragmatic and prescriptive, especially with regards to the establishment of rigorous home study routines and effective personal organisation. Crucial information outlining the syllabus content for each subject area is also provided, enabling parents to understand what topic areas are being studied on a term-by-term basis, as well as what Non-Examined Assessments are being undertaken and when during the School year they must be completed.

## **II CREATING THE RIGHT ENVIRONMENT FOR HOME STUDY**

Maximum concentration and proper application to study is fully achieved in the absence of extraneous noise and distraction. This may not always be possible in a busy household but, as far as you reasonably can, you should try to provide your son with a permanent workspace in a quiet area of your home. In most instances this will probably be his bedroom. He will also need a decent sized desk or table on which to work and some form of book case or storage area for his text books, files etc. A cork notice board attached to the wall in front of the desk is also very useful for affixing essential information, especially planners and timetables.

Finally, it is very important to check that your son has plenty of stationery and that this is replenished throughout the year. His pencil case should be properly kitted out with the full panoply of functioning items and he should have a pot of pens and pencils on his desk as well as plenty of A4 lined paper. He may also find a set of folders and dividers for the orderly filing and storage of his revision notes for all the subject areas.

## **III MUSIC AND TELEVISION**

It is a total fallacy to suggest that background noise is an aid to concentration. Pupils who make this claim have not yet learned to focus their minds fully and should be encouraged to do so. After all, the capacity to maintain concentration over protracted periods of time is not a skill they were born with but one that they must try to cultivate, particularly if they have aspirations to academic and examination success.

To this extent, listening to music or trying to watch television whilst at the same time engaging in serious study is a bad habit and a significant barrier to complete mental engagement. Unless there is an intolerable threat to familial harmony, therefore, parents should try to discourage their sons from using these items during study time.

## **IV USING THE COMPUTER**

Computers, of course, can be equally distracting but have an ambivalent function in the sense that they can be an invaluable aid to study as well as an easy route to game playing and trivia. Both teachers and parents are no doubt familiar with the scenario in which a boy begins to use a computer in order to compose an essay or research a particular topic but soon finds the lure of social media sites such as Instagram and Twitter irresistible and so spends most of the evening looking busy but actually doing no work at all. In order to ensure that the computer is put to effective use during home study time, therefore, we recommend the following strategies:

- a) When your son is using the computer, disengage his access to the Internet during study periods. The capacity to word process, create spreadsheets etc. is essential in the production of homework and clearly your son will need to spend quite a lot of time at the computer console but, if you want to be sure that he is not endlessly and pointlessly clicking about in cyber space, you are advised to remove Internet access when study is being done.
- b) The Internet is, however, an excellent research tool when used properly and should certainly play a part in home study. Given the advice above, therefore, when it is useful for your son to use the Internet for research purposes, allow him the first ten to fifteen minutes of study time (no more) to find and print off the appropriate material and then disengage the facility for the remaining time.

Of course, if your son is already well-disciplined in this regard and uses the computer in the proper manner when he is working, there is probably no need to impose this kind of restraint. Unfortunately, there are a lot of boys who are not yet at that stage and will need extra support to keep focus on the important matter at hand.

## **V EFFECTIVE HOMEWORK ROUTINES**

It is essential that both pupils and parents have a clear understanding of what home study or homework means at GCSE and how much time should be spent on it on an average weekly basis.

As a prerequisite to that understanding, it is important, initially, to appreciate that teachers cannot set homework at GCSE in the same way that they do in Key Stage 3. In the Lower School, teaching and learning are delivered to pupils in relatively small incremental stages and so, commensurately, the tasks that pupils are asked to do independently are broken down into easy 'bite-sized' pieces. It is a fairly straightforward matter under these conditions to set a homework assignment which can be completed in the allotted thirty-minute period.

Teaching and learning at GCSE, however, demands that pupils begin to engage with more extended work and, indeed, preparation for Non-Examined Assessment requires that pupils engage in very detailed research and meticulous planning of their responses before the final Assessment is undertaken. In these circumstances, teachers often give pupils in Key Stage 4 two or three weeks to prepare for an important piece of work, during which period they must themselves create sufficient time to ensure that the set task is completed to the highest possible standard. To a very large extent, therefore, pupils in Key stage 4 have to become much more self-governing since it is often the case that their teachers can no longer give them the kind of 'bite-sized' homework that they did in the past.

In addition to the demands of Non-Examined Assessment, pupils are also amassing a body of knowledge and a process of understanding across a wide range of subject areas over a two year period which will ultimately be tested in public examinations in Year 11. All that information and understanding needs to be ordered and internalised in a cumulative way and so it is expected that pupils will spend much of their home study time throughout the two year period systematically reviewing and refining their notes or doing extra research and background reading.

In effect, there is an enormous amount of work that pupils have to do, both for Non-Examined Assessment and in preparation for the final examinations and much of that work must be undertaken at the pupil's own initiative. Stating that there is nothing to do or that no homework has been set by the teacher is simply nonsensical and untrue. **No pupil studying for GCSE in this School should ever claim that there is no aspect of study he can usefully undertake and that he has no homework to do. Pupils and parents must be very clear about this.**

So how much time should your son spend studying in order to maximise his chances of success at GCSE? We recommend the following weekly programme of study is adhered to by all the boys in Key Stage 4.

- Pupils should be engaged in ten to twelve hours of study per week, evenly distributed across the working week and the weekend.
- Two hours of study should be undertaken on Monday, Tuesday, Wednesday and Thursday, preferably between the hours of 6.00pm and 8.00pm. This will give your son a period of respite from work after a long day at School and he will still have perhaps a couple of hours left of the evening for other leisure pursuits after he has finished studying. If, for some reason, it is not possible to stick to these exact timings because of other important commitments, sports training for example, the period allocated for study can of course be moved to a more convenient space. However, it should not simply disappear.
- Friday evening can be used either as 'time off' after a tiring week or to catch up on any study time missed on Monday to Thursday.
- Two to four hours of study remain to be done over the weekend. It is strongly advised that this is undertaken in two hour blocks from approximately 10.00am to 12.00am on Saturday and Sunday morning, leaving a good deal of time in the afternoon and evening for much needed rest and leisure activities.

This home study timetable or a very close version of it should create an effective and healthy balance between work and leisure for your son. Systematic and rigorous routines of work are crucial to his prospects of overall success but they also take a great deal of the stress out of the GCSE experience because they force a properly controlled and manageable approach to the work whilst creating ample opportunity for very necessary rest and relaxation.

## **VI THE STUDENT PLANNER**

The School regards the Student Planner as an extremely important aid to the development and maintenance of pupil organisational skills and this is certainly the case in Key Stage 4 where there is very careful oversight and monitoring of how the Planner is being used. Indeed, so important is the Planner regarded, that consistent failure to use it properly will incur sanctions.

To clarify, the School's expectation is that your son must write something in his Planner for each timetabled homework subject with a view to studying some useful aspect of that subject during his home study time. As has already been explained in this document, some of what he writes will have been specifically prescribed by his subject teacher for a particular homework slot but, if this is not the case, he must record a useful and relevant activity that he will undertake at home as part of his overall programme of study. So, for instance, he may record the fact that he has been preparing for a Non-Examined Assessment essay or project. Alternatively, he may record outline details of any relevant reading, or that he has been refining his class notes, or that he has been reviewing and/or revising material covered previously, or that he has been undertaking research in preparation for a future project and so on. **Above all else, he should never write 'None Set' and he must not believe it is acceptable to say that there was nothing to do.**

For your own part, please examine the Student Planner each week and sign it to confirm that the work described has been indeed been done. You should also feel free to use it as a quick means of communication with the Form Tutor or subject teachers if you have any questions regarding study matters and so on.

## VII EXTRA ADVICE FOR HELPFUL PARENTS

- **Attendance and Punctuality** – As far as possible, it is essential that your son strives to optimise his attendance and that he is always punctual. These are, of course, important life skills but they are also vital to good scholarship. Frequent absenteeism and lateness creates confusion, diminished understanding and can result in conflict and alienation. Please do everything you can to divert your son from this scenario by always emphasising the need for good attendance and punctuality and by supporting the School's requirements in this regard. Parents should ensure that routine medical appointments do not conflict with the calendar of Non-Examined Assessments. Non-Examined Assessments are regulated by externally set rulings and, whilst sessions missed may be made up at lunchtimes or after School in consultation with Subject Teachers, frequent or protracted absence can cause unnecessary time constraints on a pupil. Where absence from School is unavoidable pupils must ensure that work missed is copied up promptly, and assistance sought from Subject Teachers where clarification is required.
- **Personal Organisation** – Make sure that your son is properly prepared for School and is ready for all his lessons. He needs to know what lessons he has every day and he must have all the necessary equipment to function effectively within those lessons. If your son has not managed to organise himself effectively by Year 10, do not give up. Implement organisational routines at home that will enable your son to be more efficient and effective.
- **Encouraging Effort and Achievement** – In a recent survey of pupils in Key Stage 4 at this School, it was found that the most important ingredient in motivating pupils to succeed is parental encouragement and praise. It follows, therefore, that you should take an active interest in your son's work: ask him about what he's doing; discuss the Non-Examined Assessments with him; let him talk through his revision techniques and schedules with you, and so on. Equally, you should offer him praise when he is obviously making a real effort and has been rewarded in School with excellent grades or perhaps a Senior Commendation.

- **Constructive Criticism** – Obviously things do not always go right and your son may need to confront his difficulties honestly so that he can set things right again. Constructive criticism at this time is as valuable as praise might be at others. However you frame your response to your son’s circumstances, make it clear that your ultimate objective is to provide support and, whenever possible, help him to find practical solutions and strategies to overcome problems.
- **Providing Enrichment** - This School offers a whole host of educational experiences and cultural opportunities in the Westcliff Diary and your son should be encouraged to attend a number of these each term. In addition to what is on offer here, parents can also play a crucial role in enriching and furthering their son’s education. For instance, you can source interesting television dramas or documentaries; find relevant websites to extend or deepen subject knowledge; provide extra appropriate books, articles and DVDs; or take your son on trips to museums, exhibitions, the theatre and so on. The fact is that the more your son is immersed in the world of education and learning, the more engaged and confident he will begin to feel within it– and that is very likely to produce rewarding outcomes.
- Finally, if your son is experiencing particular problems, of either a personal or an academic kind, do not hesitate to contact the School to discuss your concerns. Remember, we are here to help and will do whatever we can to promote the best interests of your son at every level of his experience.

## VIII SUBJECT SPECIFIC TOPIC AND COURSEWORK GUIDE

What follows has been produced by Heads of Department at WHSB and is a subject-specific summary of the key topic areas covered each term, as well as a guide to what Non-Examined Assessments must be done and when they must be completed. Parents can refer to this to stay abreast of what is being studied at any given point in any of the GCSE courses and may use the information here at home as a cue to provide extra enrichment opportunities relevant to particular areas of study.

# AQA GCSE ENGLISH LANGUAGE and GCSE ENGLISH LITERATURE

(Specification Code 8700 and 8702)

Year 10	First Half-Term	Second Half-Term
Autumn/ Winter 2020	<i>Jekyll and Hyde</i> Literature Paper 1 – Shakespeare and the 19 <sup>th</sup> Century Novel (closed book)	Unseen Literary Fiction Descriptive Writing Language Paper 1 – Explorations in Creative Reading and Writing
Spring 2021	<i>Romeo and Juliet</i> Literature Paper 1 – Shakespeare and the 19 <sup>th</sup> Century Novel (closed book)	<i>Romeo and Juliet</i> Literature Paper 1 – Shakespeare and the 19 <sup>th</sup> Century Novel (closed book)
Summer 2021	Anthology Conflict Poetry/Unseen Poetry Literature Paper 2 – Modern Texts and Poetry	<b>REVISION – ALL PAPERS TO DATE</b> Year 10 Examinations including revision and diagnostic feedback: English Language Paper 1 – SECTIONS A and B English Literature Paper 1 – SECTION B English Literature Paper 2 – SECTION A  Unseen Non-fiction and Literary Non-fiction Writing to Present a Viewpoint Language Paper 2 – Writers’ Viewpoints and Perspectives

Year 11	First Half-Term	Second Half-Term
Autumn/ Winter 2021	<i>The History Boys</i> Literature Paper 2 – Modern Texts and Poetry (closed book)	<i>The History Boys</i> Literature Paper 2 – Modern Texts and Poetry (closed book)  Year 11 Trial Examinations including revision and diagnostic feedback: English Language Paper 2 – SECTIONS A and B English Literature Paper 1 - SECTION A English Literature Paper 2 – SECTIONS B and C
Spring 2022	Language Papers 1&2: Paper 1: Unseen Literary Fiction Descriptive Writing Language Paper 1 – Explorations in Creative Reading and Writing Paper 2: Unseen Non-fiction and Literary Non-fiction Writing to Present a Viewpoint Language Paper 2 – Writers’ Viewpoints and Perspectives	Unseen Poetry Literature Paper 2 – Modern Texts and Poetry Departmental trial examinations including revision and diagnostic feedback: English Literature Paper 1 - SECTION A English Literature Paper 2 - SECTIONS B and C  REVISION: Language papers
Summer 2022	<b>REVISION – ALL PAPERS</b>	<b>FINAL EXAMINATIONS – FOUR PAPERS</b>

GCSE English Language includes Spoken Language, a non-examination assessment which will be awarded a separate grading on the final GCSE English Language Certificate. Speaking and Listening has a 0% weighting and does not count towards the final GCSE English Language grade. Tasks will be spread out over the first five terms and are teacher-assessed in lessons. Tracking tasks are taken under timed conditions.



# GCSE MATHEMATICS

The examination board is Edexcel: the specification title is 'Edexcel GCSE Mathematics (9-1)' from 2015 and full details of the specification may be obtained at <http://www.edexcel.com>.

There is no Non-Examined Assessment in GCSE Mathematics. The examination consists of three written papers (the first one being a non-calculator paper) of one hour thirty minutes each. Our expectation is that pupils will be entered for the Higher Tier (Grades 3-9).

Pupils studying Mathematics will follow the Edexcel GCSE Maths Higher book (ISBN 9780198351511), as well as extension work which is provided on an interactive program called *MyMaths* which is accessible through the Internet.

Term	Topics
1	<ul style="list-style-type: none"><li>• Circle Theorems</li><li>• Congruent Triangles</li><li>• Similar Figures</li><li>• Probability</li><li>• Venn and Tree Diagrams</li></ul>
2	<ul style="list-style-type: none"><li>• Factorising Quadratic Equations</li><li>• Solving Quadratic Equations</li><li>• Algebraic Fractions</li></ul>
3	<ul style="list-style-type: none"><li>• Graphs</li><li>• Length, Area, and Volume</li><li>• Cylinders, Cones, and Spheres</li></ul>
4	<ul style="list-style-type: none"><li>• Advanced Trigonometry</li><li>• Tangents to Curves and Travel Graphs</li></ul>
5	<ul style="list-style-type: none"><li>• Information from Straight Line Graphs</li><li>• Rational and Irrational Numbers</li></ul>
6	<ul style="list-style-type: none"><li>• Formulae</li><li>• Constructions and Transformations</li></ul>
7	<ul style="list-style-type: none"><li>• Sequences</li><li>• Variation</li></ul>
8	<ul style="list-style-type: none"><li>• More Equations</li><li>• Quadratic Inequalities</li><li>• Iteration</li></ul>
9	<ul style="list-style-type: none"><li>• Functions</li><li>• Box Plots and Histograms</li></ul>
10	<ul style="list-style-type: none"><li>• Vector Methods</li></ul>

## GCSE FURTHER MATHEMATICS

*Note: Entry to this qualification is by invitation only and is determined by the performance of pupils across the whole of Year 9.*

The examination board is AQA: the specification title is 'Level 2 Further Mathematics (8360)' and full details of the specification may be obtained at <http://www.aqa.org.uk>.

There is no Non-Examined Assessment in Further Mathematics. The examination consists of two written papers, the first one being a non-calculator paper of one hour thirty minutes and the second being a calculator paper of two hours. Pupils will only be entered for this exam if we think they are able to achieve a 7,8 or 9 grade. If they are unable to evidence this sort of work across the two years, a series of intervention initiatives will be used in the hopes of raising the grade. This exam will be sat in the Summer of Year 11.

Pupils in the Further Mathematics class will also sit their GCSE Mathematics examination. Please see information on the previous page relating to this.

Pupils work from the Edexcel GCSE Maths Higher book (ISBN 9780198351511) to cover the basic GCSE syllabus in the first instance, but then will progress on to carefully selected and crafted work when they move on to the Further Mathematics syllabus, drawn from a range of media, alongside the AQA Further Mathematics text book.

Term	Topic
1, 2 & 3	STP 10A and 11A will be used to cover topics which are in the GCSE syllabus but not covered in the Further Mathematics syllabus
4	<ul style="list-style-type: none"><li>• Operations and Surds</li><li>• Algebraic manipulation</li></ul>
5	<ul style="list-style-type: none"><li>• Solving algebraic problems</li></ul>
6	<ul style="list-style-type: none"><li>• Algebraic proof</li><li>• Graphical methods</li></ul>
7	<ul style="list-style-type: none"><li>• Straight lines</li><li>• Circles</li></ul>
8	<ul style="list-style-type: none"><li>• Sine and Cosine rule</li><li>• Ratios of angles</li></ul>
9	<ul style="list-style-type: none"><li>• Pre Calculus</li><li>• Differentiation</li><li>• Matrix Transformation</li></ul>
10+	Revision period for consolidation of GCSE Mathematics work and preparation for the GCSE Further Mathematics exams

# AQA GCSE BIOLOGY

The Department is following the AQA GCSE in Biology specification which is assessed by two externally assessed papers. Each paper lasts for one hour and forty five minutes and is worth one hundred marks. The two papers will examine different material, with Paper 1 assessing topics 1-4 of the specification and Paper 2 assessing topics 5-7 of the specification. There is no coursework component to the GCSE Biology. As part of the course, pupils are required to carry out ten practicals which are assessed in the two written papers. The specification can be viewed in full at <http://www.aqa.org.uk> and the following is a brief summary.

## **Section 1: Cell Biology**

This section explores how structural differences between types of cells enables them to perform specific functions within the organism. Pupils learn that these differences in cells are controlled by genes in the nucleus and mitosis is required for growth.

## **Section 2: Organisation**

Pupils learn about the human digestive system which provides the body with nutrients and the respiratory system that provides it with oxygen and removes carbon dioxide. Pupils also learn how the plant's transport system is dependent on environmental conditions to ensure that leaf cells are provided with the water and carbon dioxide that they need for photosynthesis.

## **Section 3: Infection and Response**

Pupils are taught within this section that pathogens are microorganisms such as viruses and bacteria that cause infectious diseases in animals and plants. They will learn that pathogens depend on their host to provide the conditions and nutrients that they need to grow and reproduce and that they frequently produce toxins that damage tissues and make us feel ill.

## **Section 4: Bioenergetics**

In this section pupils will explore how plants harness the Sun's energy in photosynthesis in order to make food. Pupils will be taught that both animals and plants use oxygen to oxidise food in a process called aerobic respiration which transfers the energy that the organism needs to perform its functions.

## **Section 5: Homeostasis and Response**

Within this section, pupils will learn that cells in the body require a constant temperature and pH as well as a constant supply of dissolved food and water. In order to do this the body requires control systems that constantly monitor and adjust the composition of the blood and tissues. Pupils will explore the structure and function of the nervous system and how it can bring about fast responses.

## **Section 6: Inheritance, Variation and Evolution**

Pupils will discover how the number of chromosomes are halved during meiosis and then combined with new genes from the sexual partner to produce unique offspring. Pupils will be taught that variation generated by mutations and sexual reproduction is the basis for natural selection.

## **Section 7: Ecology**

In this section pupils will be taught that the Sun is a source of energy that passes through ecosystems and that materials including carbon and water are continually recycled by the living world. Pupils will learn that all species live in ecosystems composed of complex communities of animals and plants dependent on each other and that are adapted to particular conditions.

## **Section 8: Key Ideas**

In this section, pupils are taught about a number of key ideas in biology that are used to describe the complex and diverse phenomena of the natural world.

# **AQA GCSE CHEMISTRY**

The AQA GCSE in Chemistry is a challenging but rewarding programme that provides a broad insight into the discipline. There are ten topics in the course and several chapters make up each section. Given below are brief summaries of these ten topics. The full specification is available at <http://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF>

The AQA GCSE in Chemistry is assessed by two externally assessed papers. Both papers are 1 hour and 45 minutes in duration and worth 100 marks. The two papers will examine different material and cover 5 topics each, 1-5 and 6-10. Pupils are not assessed through coursework but have to complete 8 Core Practicals. These will be examined in the two papers sat at the end of the course.

## **Topic 1: Atomic Structure and the Periodic Table**

The periodic table provides chemists with a structured organisation of the known chemical elements from which they can make sense of their physical and chemical properties. The historical development of the periodic table and models of atomic structure provide good examples of how scientific ideas and explanations develop over time as new evidence emerges. The arrangement of elements in the modern periodic table can be explained in terms of atomic structure which provides evidence for the model of a nuclear atom with electrons in energy levels.

## **Topic 2: Bonding and Structure**

Chemists use theories of structure and bonding to explain the physical and chemical properties of materials. Analysis of structures shows that atoms can be arranged in a variety of ways, some of which are molecular while others are giant structures. Theories of bonding explain how atoms are held together in these structures. Scientists use this knowledge of structure and bonding to engineer new materials with desirable properties. The properties of these materials may offer new applications in a range of different technologies.

## **Topic 3: Quantitative Chemistry**

Chemists use quantitative analysis to determine the formulae of compounds and the equations for reactions. Given this information, analysts can then use quantitative methods to determine the purity of chemical samples and to monitor the yield from chemical reactions. Chemical reactions can be classified in various ways. Identifying different types of chemical reaction allows chemists to make sense of how different chemicals react together, to establish patterns and to make predictions about the behaviour of other chemicals. Chemical equations provide a means of representing chemical reactions and are a key way for chemists to communicate chemical ideas.

## **Topic 5: Chemical Changes**

Understanding of chemical changes began when people began experimenting with chemical reactions in a systematic way and organising their results logically. Knowing about these different chemical changes meant that scientists could begin to predict exactly what new substances would be formed and use this knowledge to develop a wide range of different materials and processes. It also helped biochemists to understand the complex reactions that take place in living organisms. The extraction of important resources from the Earth makes use of the way that some elements and compounds react with each other and how easily they can be 'pulled apart'.

## **Topic 6: Energy Changes**

Energy changes are an important part of chemical reactions. The interaction of particles often involves transfers of energy due to the breaking and formation of bonds. Reactions in which energy is released to the surroundings are exothermic reactions, while those that take in thermal energy are endothermic. These interactions between particles can produce heating or cooling effects that are used in a range of everyday applications. Some interactions between ions in an electrolyte result in the production of electricity. Cells and batteries use these chemical reactions to provide electricity. Electricity can also be used to decompose ionic substances and is a useful means of producing elements that are too expensive to extract any other way.

## **Topic 7: Energy Changes**

The chemistry of carbon compounds is so important that it forms a separate branch of chemistry. A great variety of carbon compounds is possible because carbon atoms can form chains and rings linked by C-C bonds. This branch of chemistry gets its name from the fact that the main sources of organic compounds are living, or once-living materials from plants and animals. These sources include fossil fuels which are a major source of feedstock for the petrochemical industry. Chemists are able to take organic molecules and modify them in many ways to make new and useful materials such as polymers, pharmaceuticals, perfumes and flavourings, dyes and detergents.

## **Topic 8: Analytical Chemistry**

Analysts have developed a range of qualitative tests to detect specific chemicals. The tests are based on reactions that produce a gas with distinctive properties, or a colour change or an insoluble solid that appears as a precipitate. Instrumental methods provide fast, sensitive and accurate means of analysing chemicals, and are particularly useful when the amount of chemical being analysed is small. Forensic scientists and drug control scientists rely on such instrumental methods in their work.

## **Topic 9: Chemistry of the Atmosphere**

Analysts have developed a range of qualitative tests to detect specific chemicals. The tests are based on reactions that produce a gas with distinctive properties, or a colour change or an insoluble solid that appears as a precipitate. Instrumental methods provide fast, sensitive and accurate means of analysing chemicals, and are particularly useful when the amount of chemical being analysed is small. Forensic scientists and drug control scientists rely on such instrumental methods in their work.

## **Topic 10: Using Resources**

Industries use the Earth's natural resources to manufacture useful products. In order to operate sustainably, chemists seek to minimise the use of limited resources, use of energy, waste and environmental impact in the manufacture of these products. Chemists also aim to develop ways of disposing of products at the end of their useful life in ways that ensure that materials and stored energy are utilised. Pollution, disposal of waste products and changing land use has a significant effect on the environment, and environmental chemists study how human activity has affected the Earth's natural cycles, and how damaging effects can be minimised.

## **AQA GCSE PHYSICS**

The Department is following the AQA GCSE in Physics specification. The assessment of this course consists of two externally assessed papers. Both papers last for one hundred and five minutes and are worth one hundred marks. The two papers will examine different material. Paper 1 covers Energy, Electricity, the Particle Model of Matter and Atomic Structure. Paper 2 covers Forces, Waves, Magnetism and Electromagnetism and Space Physics. There is no coursework component to the AQA GCSE in Physics. The specification can be viewed in full at <http://www.aqa.org.uk/> and the following is a brief summary.

### **Energy**

The concept of energy emerged in the 19<sup>th</sup> century. The idea was used to explain the work output of steam engines and then generalised to understand other heat engines. It also became a key tool for understanding chemical reactions and biological systems. Limits to the use of fossil fuels and global warming are critical problems for this century. Physics and engineers are working hard to identify ways to reduce our energy usage.

### **Electricity**

Electric charge is a fundamental property of matter everywhere. Understanding the difference in the microstructure of conductors, semiconductors and insulators makes it possible to design components and build electric circuits. Many circuits are powered with mains electricity, but portable electrical devices must use batteries of some kind. Electrical power fills the modern world with artificial light and sound, information and entertainment, remote sensing and control. The fundamentals of electromagnetism were worked out by scientists of the 19<sup>th</sup> Century.

### **Particle Model of Matter**

The particle model is widely used to predict the behaviour of solids, liquids and gases and this has many applications in everyday life. It helps us to explain a wide range of observations and engineers use these principles when designing vessels to withstand high pressures and temperatures, such as submarines and spacecraft. It also explains why it is difficult to make a good cup of tea high up a mountain.

### **Atomic Structure**

Ionising radiation is hazardous but can be very useful. Although radioactivity was discovered over a century ago, it took many nuclear physicists several decades to understand the structure of atoms, nuclear forces and stability. Early researchers suffered from their exposure to ionising radiation. Rules for radiological protection were first introduced in the 1930s and subsequently improved. Today radioactive materials are widely used in medicine, industry, agriculture and electrical power generation.

## **Forces**

Engineers analyse forces when designing a great variety of machines and instruments, from road bridges and fairground rides to atomic force microscopes. Anything mechanical can be analysed in this way. Recent developments in artificial limbs use the analysis of forces to make movement possible.

## **Waves**

Wave behaviour is common in both natural and man-made systems. Waves carry energy from one place to another and can also carry information. Designing comfortable and safe structures such as bridges, houses and music performance halls requires an understanding of mechanical waves. Modern technologies such as imaging and communication systems show how we can make the most of electromagnetic waves.

## **Magnetism and Electromagnetism**

Electromagnetic effects are used in a wide variety of devices. Engineers make use of the fact that a magnet moving in a coil can produce electric current and also that when current flows around a magnet it can produce movement. It means that systems that involve control or communications can take full advantage of this.

## **Space Physics**

Questions about where we are, and where we came from, have been asked for thousands of years. In the past century, astronomers and astrophysicists have made remarkable progress in understanding the scale and structure of the universe, its evolution and ours. New questions have emerged recently. 'Dark matter', which bends light and holds galaxies together but does not emit electromagnetic radiation, is everywhere – what is it? And what is causing the universe to expand ever faster?

## GCSE ART & DESIGN: FINE ART

The examination board for Art and Design at WHSB is AQA. Pupils can visit [www.aqa.org.uk](http://www.aqa.org.uk) for the subject specification. GCSE Art and Design (Fine Art) is intended for pupils who have proven practical skills using fine art processes and media. Pupils will create art works including some or all of the following; Painting and Drawing, Sculpture, and Printmaking.

The Full Course GCSE is made up of:-

- Paper 1 *A Personal Portfolio, consisting of one or two units of coursework. This must have a complete sketchbook and four outcomes to support each unit.*
- Paper 2 *Externally Set Assignment. Titles set by the Exam board. A full sketchbook plus supporting studies and one ten hour outcome.*

In both UNITS all Assessment Objectives must be met.

### Assessment Objectives

<b>A01</b>	Developing ideas through investigations informed by contextual and other sources, demonstrating analytical and cultural understanding.	25%
<b>A02</b>	Refining ideas through experimenting and selecting appropriate resources, media, materials, techniques and processes.	25%
<b>A03</b>	Recording ideas, observations and insights relevant to intentions in visual and/or other forms.	25%
<b>A04</b>	Presenting a personal, informed and meaningful response demonstrating analytical and critical understanding. Realising intentions and, where appropriate, making connections between visual, written, oral or other elements.	25%

### COURSEWORK

TIMETABLE	TOPIC	ASSESSMENT	WEIGHTING
September 2020 – January 2022  Coursework	<b>3 themes:</b>  1. <i>“Natural Forms”</i>  2. <i>“Identity”/“Coast”</i>  3. <i>A trial examination (8 weeks preparation, 10 hour examination)</i>	<ul style="list-style-type: none"> <li>▪ Internally set</li> <li>▪ Internally marked</li> <li>▪ Externally moderated</li> <li>▪ Must include Sketchbook for each Theme</li> </ul> May 2022	60%

### EXAM UNIT

TIMETABLE	TOPIC	ASSESSMENT	WEIGHTING
January 2022  Externally Set Assignment (Preparatory Period of Eight to Ten School Weeks)	<i>Themes set by AQA</i>	<ul style="list-style-type: none"> <li>▪ Externally set</li> <li>▪ Internally marked</li> <li>▪ Externally moderated</li> <li>▪ Must include Sketchbooks</li> </ul> May - June 2022	40%
April 2022  Externally Set Assignment (Timed Test 10 Hours)			



## GCSE COMPUTER SCIENCE (J276 from 2016)

The examination board is OCR. The specification is called "OCR GCSE in Computer Science J276". Full details can be obtained from [www.ocr.org.uk](http://www.ocr.org.uk).

This course will give pupils an in-depth understanding into how computer technology works and a look at what goes on "behind the scenes." As part of this, pupils will investigate computer programming and problem solving.

This course is made up of three units. The theory component, worth 100%, is assessed via two 1hr 30 min written papers. The question paper will feature short and essay style questions along with the opportunity to demonstrate programming concepts via pseudocode.

The pupils are required to complete one Non-Examined Assessment lasting 20 hours (24 lessons) but this will not contribute to the final grade. The coursework will be completed using the main course language Python to complete one of three board set assignments producing a short-written report.

Term	Theory 01 - Computer Systems	Theory 02 - Computational thinking, algorithms and programming	Programming Project
1	Systems Architecture Memory Storage	Algorithms Programming techniques	
2	Wired and wireless networks Network topologies, protocols and layers	Producing robust programs	Programming Project (Non-Examined Assessment)
3	System security, System software	Computational logic Data representation	
4	Ethical, legal, cultural and environmental concerns	Translators and facilities of languages	
5	Revision	Revision	

# GCSE DESIGN & TECHNOLOGY

The examination board for Design & Technology is AQA. Pupils can visit [www.aqa.org.uk](http://www.aqa.org.uk) for the subject specification and past papers. GCSE textbooks, computer software and coursework booklets are available in School for pupil use.

GCSE Design & Technology is intended for pupils who have chosen to specialise in designing and making using a range of materials and processes. Pupils will design and make contemporary products to meet a variety of needs that reflect lifestyle and society. Creativity is a big part of this course; pupils are required to solve practical problems that should be both easily manufactured and aesthetically pleasing.

## UNIT 1: Written Paper

2 hours - 120 marks

50% of the total marks

Questions will cover three key areas:

- Core technical principles (building on knowledge across all areas of the Design & Technology curriculum at KS3).
- Specialist technical principles (in depth knowledge of at least two material groups from timbers, metals, polymers, textiles, paper & boards or electronic and mechanical devices).
- Design & making principles (a design question with choice of material bias).

## UNIT 2: Non-exam assessment (NEA)

Design and Make Portfolio

50% of the total marks

Contextual challenges to be released annually by AQA on 1 June in the year prior to the submission of the NEA these will suit a variety of material areas.

Pupils would be required to produce a concise design folder and/or appropriate ICT evidence and the development of a made outcome.

### Year 10 Term 1

Single Lesson	<ul style="list-style-type: none"><li>- Unit 1 – New and emerging technologies</li><li>- Unit 2 - Energy generation and storage</li></ul>
Double Lesson	<ul style="list-style-type: none"><li>- Design and making skills challenges; investigating with a range of materials and techniques</li></ul>

### Year 10 Term 2

Single Lesson	<ul style="list-style-type: none"><li>- Unit 3 – Materials and their working properties</li><li>- Unit 4 – Common specialist technical principles</li></ul>
Double Lesson	<ul style="list-style-type: none"><li>- Practice contextual design and make challenge using materials</li></ul>

### Year 10 Term 3

Single Lesson	<ul style="list-style-type: none"><li>- Unit 6 – Designing Principles</li></ul>
Double Lesson	<ul style="list-style-type: none"><li>- NEA – Researching, Investigating, Designing</li></ul>

**Year 11 Term 1**

Single Lesson	- Unit 7 – Making Principles
Double Lesson	- NEA – design development of prototypes

**Year 11 Term 2**

Single Lesson	- Unit 5 – Specialist Technical Principles
Double Lesson	- NEA – manufacturing prototypes and evaluating

# GCSE ECONOMICS

Examining Body: OCR

Website Address: [www.ocr.org.uk](http://www.ocr.org.uk)

Subject Codes: J205/01: Introduction to Economics  
J205/02: National & International Economics

Assessment: J205/01: 1½ hours written paper (50% of total grade)  
J205/02: 1½ hours written paper (50% of total grade)

Textbook: OCR GCSE (9-1) Economics

Recommended reading: [www.bbc.co.uk/news/business](http://www.bbc.co.uk/news/business)

The GCSE Examination comprises of two papers: Paper 1, Introduction to Economics and Paper 2, National & International Economics.

Papers 1 and 2 are worth 80 marks each and are both made up of two sections. Section A assesses Knowledge with 20 multiple-choice questions. Section B comprises two main questions with sub components assessing Knowledge, Application, Analysis and Evaluation.

Year 10 pupils are tested each fortnight with a particular focus, in the first term, on Knowledge using questions sourced from the Core Knowledge booklet distributed in September. Skills testing on Application, Analysis and Evaluation is gradually introduced towards the end of the Autumn Term.

Year 11 pupils are tested each fortnight with a greater focus on Skills. Test papers comprise two sections: Core Knowledge and Skills. Core Knowledge questions are sourced from the Core Knowledge booklet and Skills questions (Analyse and Evaluate) are based on similar materials taught and practised in lessons.

## YEAR 10

<b>AUTUMN TERM</b>	<b>SPRING TERM</b>	<b>SUMMER TERM</b>
First half term	First half term	First half term
<ul style="list-style-type: none"> <li>Main economic groups and factors of production</li> <li>The basic economic problem</li> <li>The role of markets</li> </ul>	<ul style="list-style-type: none"> <li>Price</li> <li>Competition</li> </ul>	<ul style="list-style-type: none"> <li>The role of money</li> <li>Financial markets</li> </ul>
Second half term	Second half term	Second half term
<ul style="list-style-type: none"> <li>Demand</li> <li>Supply</li> </ul>	<ul style="list-style-type: none"> <li>Production</li> <li>The labour market</li> </ul>	<ul style="list-style-type: none"> <li>Economic growth</li> <li>Low unemployment</li> <li>EXAMS</li> </ul>

## YEAR 11

<b>AUTUMN TERM</b>	<b>SPRING TERM</b>	<b>SUMMER TERM</b>
First half term	First half term	First half term
<ul style="list-style-type: none"><li>• Fair distribution of income</li><li>• Price stability</li><li>• Fiscal policy</li></ul>	<ul style="list-style-type: none"><li>• Limitations of markets</li><li>• Importance of international trade</li></ul>	<ul style="list-style-type: none"><li>• Globalisation</li><li>• Revision</li></ul>
Second half term	Second half term	Second half term
<ul style="list-style-type: none"><li>• Monetary policy</li><li>• Supply side policy</li><li>• TRIAL EXAMS</li></ul>	<ul style="list-style-type: none"><li>• Balance of payments</li><li>• Exchange rates</li></ul>	<ul style="list-style-type: none"><li>• EXAMINATIONS</li></ul>

## GCSE FRENCH, GERMAN AND SPANISH

At WHSB, all pupils continue with the study of at least one language to GCSE, and many choose to continue with both of their languages. By the end of the GCSE course, pupils should be able to converse fluently, confidently and spontaneously on a wide range of topics. A 2016 survey (\*) by the CBI employers and Pearson showed that the languages most in demand by UK businesses are French, German and Spanish, and with declining numbers of people proficient in these languages in the UK, a strong GCSE which could lead to an A Level in at least one of these languages is an asset for our pupils.

Pupils follow the new AQA GCSE Languages course for Years 10 and 11 to prepare them for the examinations in listening, speaking, reading and writing. Each skill is worth 25% of the final examination grade and there is no coursework. In all languages, the topics studied are split into three broad themes:

Theme 1: Identity and culture.

Theme 2: Local, national, international and global areas of interest.

Theme 3: Current and future study and employment.

These are subdivided as follows:

Identity and Culture	Local, national, international and global areas of interest	Current and future study and employment
<p>Topic 1: Me, my family and friends</p> <ul style="list-style-type: none"> <li>• Relationships with family and friends</li> <li>• Marriage/partnership</li> </ul> <p>Topic 2: Technology in everyday life</p> <ul style="list-style-type: none"> <li>• Social media</li> <li>• Mobile technology</li> </ul> <p>Topic 3: Free-time activities</p> <ul style="list-style-type: none"> <li>• Music</li> <li>• Cinema and TV</li> <li>• Food and eating out</li> <li>• Sport</li> </ul> <p>Topic 4: Customs and festivals in French/German/Spanish-speaking countries/communities</p>	<p>Topic 1: Home, town, neighbourhood and region</p> <p>Topic 2: Social issues</p> <ul style="list-style-type: none"> <li>• Charity/voluntary work</li> <li>• Healthy/unhealthy living</li> </ul> <p>Topic 3: Global issues</p> <ul style="list-style-type: none"> <li>• The environment</li> <li>• Poverty/homelessness</li> </ul> <p>Topic 4: Travel and tourism</p>	<p>Topic 1: My studies</p> <p>Topic 2: Life at school/college</p> <p>Topic 3: Education post-16</p> <p>Topic 4: Jobs, career choices and ambitions</p>

Further information can be found in the specifications, and we recommend that pupils familiarise themselves with the wealth of information and practice materials, all of which is available on the AQA website.

As a Department, we are fortunate to have access to a large bank of resources, some which we have bought, but many of which we have created for the pupils at this school in order to provide stretch and challenge. Pupils will be provided with a new textbook in the relevant language, but we often make use of other textbooks and materials.

In all three languages, our teachers are supported by our Foreign Language Assistants who meet with our Year 11 pupils in small groups to provide extra assistance with preparation for the speaking examination. These lessons (as well as the majority of all MFL lessons) are conducted exclusively in the target language.

To achieve success at GCSE, motivation is key and pupils must increase the amount of independent work they do; they must start to take an interest in the countries where their studied languages are spoken. In their independent work, as well as time spent consolidating vocabulary, learning new structures and practising grammar, we recommend that pupils make sensible use of the huge amount of material on the Internet. We particularly recommend [www.languagesonline.org.uk](http://www.languagesonline.org.uk) and Quizlet. In addition, we recommend that pupils spend time outside of lessons watching films and TV, reading online and listening to music in the various languages.

\* CBI (2016) THE RIGHT COMBINATION CBI/PEARSON EDUCATION AND SKILLS SURVEY 2016

# GCSE GEOGRAPHY

We follow the AQA 2016 syllabus. The course comprises of three examinations: Physical Geography, Human Geography and an Issue Evaluation. The specification can be found online at: <http://www.aqa.org.uk/subjects/geography/gcse/geography-8035> .

**Paper 1 is Physical Geography.** The paper is made up of 3 sections: A) the challenge of natural hazards, B) the living world and C) physical landscapes in the UK. Geographical skills are also tested in this unit. The paper is 90 minutes long and is worth 88 marks. 3 of those marks are given for SPaG on longer questions. Section A is worth 33 marks, Section B is worth 25 marks and Section C is worth 30 marks. The question type ranges from single mark multiple choice questions, to diagram annotation, data response questions to 9 mark answers. The paper is worth 35% of the GCSE.

**Paper 2 is Human Geography.** The paper is made up of 3 sections: A) urban issues and challenges, B) the changing economic world and C) the challenge of resource management. Geographical skills are also tested in this unit. The paper is 90 minutes long and is worth 88 marks. 3 of those marks are given for SPaG on longer questions. Section A is worth 33 marks, Section B is worth 30 marks and Section C is worth 25 marks. The question type ranges from single mark multiple choice questions, to diagram annotation, data response questions to 9 mark answers. The paper is worth 35% of the GCSE.

Both Papers 1 and 2 contain option modules where the Department has been able to select the units felt to most interest the pupils from a list of possibilities. It is important that the boys pay attention to the rubric on the front of the examination papers and select the correct options to answer.

**Paper 3 is called Geographical Applications** and ordinarily covers three aspects of Geography: fieldwork, geographical skills and issue evaluation. It is mandatory for pupils to complete two days of fieldwork: at WHSB this is usually a physical day at Walton-on-the-Naze and a human day at Stratford. Questions will be asked in the exam which ensure pupils can justify their choice of data collection, presentation and analysis strategies.

The preparation for the geographical skills section will be completed throughout the course. The issue evaluation is based around pre-released material based on a topic from Papers 1 and 2. The material is released in March of Year 11; pupils are permitted a copy of the material to write on and prepare with, but this copy cannot be taken into the exam hall. On the day a fresh, non-annotated copy will be supplied.

## YEAR 10

AUTUMN TERM	SPRING TERM	SUMMER TERM
First half term	First half term	First half term
PHYSICAL SECTION B <ul style="list-style-type: none"> <li>Ecosystems</li> <li>Tropical rainforests</li> <li>Cold environments</li> </ul>	PHYSICAL SECTION C <ul style="list-style-type: none"> <li>UK landscapes</li> <li>UK Coastal landscapes</li> <li>UK River landscapes</li> </ul>	HUMAN SECTION A <ul style="list-style-type: none"> <li>UK urban challenges</li> </ul>
Second half term	Second half term	Second half term
HUMAN SECTION C <ul style="list-style-type: none"> <li>Resource management</li> <li>Food security</li> </ul>	HUMAN SECTION A <ul style="list-style-type: none"> <li>Global urban patterns</li> <li>Urban challenges in poorer countries</li> </ul>	END OF YEAR EXAMINATIONS FIELDWORK <ul style="list-style-type: none"> <li>Preparation and write-up</li> </ul>

## YEAR 11

<b>AUTUMN TERM</b>	<b>SPRING TERM</b>	<b>SUMMER TERM</b>
First half term	First half term	First half term
PHYSICAL SECTION A <ul style="list-style-type: none"> <li>• Distribution of hazards</li> <li>• Tectonic hazards</li> </ul> FIELDWORK <ul style="list-style-type: none"> <li>• Preparation and write-up</li> </ul>	HUMAN SECTION B <ul style="list-style-type: none"> <li>• Global development and economic change</li> </ul>	ISSUE EVALUATION PREP  REVISION OF COURSE Tailored to the particular strengths and weaknesses of your son's class.
Second half term	Second half term	Second half term
PHYSICAL SECTION A <ul style="list-style-type: none"> <li>• Weather &amp; climate hazards</li> </ul> GCSE TRIAL EXAMINATIONS	HUMAN SECTION B <ul style="list-style-type: none"> <li>• Global trade</li> <li>• Growth of NICs</li> <li>• UK Economy</li> </ul> ISSUE EVALUATION PREP	EXAMINATIONS

### WHERE TO GO FOR INFORMATION

The pupils are issued with a textbook – Oxford AQA GCSE Geography BBC GCSE Bitesize is a good source of information and has short revision quizzes the pupils can use to test their knowledge. Your son's Geography teacher will be able to recommend other specific sources for each topic. Some pupils find revision guides useful and the Geography Department recommends those published by CGP. In Year 11, we issue all students with a comprehensive WHSB Geography revision booklet.

### HOW CAN PARENTS HELP?

During each unit pupils will complete a set of practice exam questions, based on the styles of questions found in the actual papers. These will be used both in class and as homework tasks. At the end of each unit pupils will complete a timed, closed-book test, again based on the paper format. Talking to your son about his mark, his technique and what he needs to do to improve his answers is a really valuable reflective tool and will help him to make rapid progress.

The course is fast paced and it is vital that homework tasks are submitted on time and fully completed. We encourage the boys to make revision notes (whether on index cards, in a small exercise book or on an electronic document) as they go, rather than leaving all the revision preparation until later in Year 11. Early and gentle preparation is a lot more successful than a last minute rush.



# GCSE GEOLOGY

Pupils follow the WJEC Eduqas GCSE Geology during Years 10 and 11. The table below shows the teaching timetable for the syllabus content.

Term	Syllabus Content	Syllabus Reference
One (Year 10)	<ul style="list-style-type: none"> <li>Minerals</li> <li>Sedimentary Rocks and their Fossil Content. The Rock Cycle</li> <li>Deformational Structures</li> </ul>	Key Idea 1.1 Key Ideas 1.3 & 2.1  Key Idea 1.5
Two (Year 10)	<ul style="list-style-type: none"> <li>Igneous Rocks and Processes</li> <li>Metamorphic Rocks and Processes</li> </ul> Preparation for, and implementation of, Dorset field work	Key Idea 1.2 Key Idea 1.4 Obligatory fieldwork
Three (Year 10)	<ul style="list-style-type: none"> <li>Plate Tectonics</li> <li>Geochronological Principles</li> </ul>	Key Idea 2.2 Key Idea 2.3
Four (Year 11)	<ul style="list-style-type: none"> <li>Palaeontology</li> <li>Global Climatic and Sea level change</li> <li>Planetary Geology</li> </ul>	Key Ideas 1.3, 2.3 & 2.5 Key Idea 2.4 Key Idea 3.1
Five (Year 11)	<ul style="list-style-type: none"> <li>Earth Hazards and their Mitigation</li> <li>Earth Resources and Engineering</li> </ul>	Key Idea 4.1 Key Idea 4.2
Six (Year 11)	Consolidation of learning and revision Two examinations	

Pupils will have a copy of the WJEC Eduqas syllabus and will be able to follow the references made in Column 3 above. The copy of the specification will prove very useful during times of revision as well and should be kept within their Geology File. The Geology File is a document file (given to pupils) in which useful loose papers are kept.

Fieldwork has long been an attractive aspect of the study of Geology and has been incorporated at the heart of the specification. Therefore, fieldwork is a compulsory part of their WJEC Eduqas Specification and must include 'at least one opportunity to carry out a directed investigation to answer a geological problem'. This investigation and the overall assessment of fieldwork will usually take place during the Spring Term of Year 10. A high standard of work is expected and the knowledge, understanding and problem-solving skills obtained will form an integral part of examination papers.

Apart from formal School and GCSE examinations, two end-of-topic tests are held in November and February in Year 10.

Finally, listed below are a few recommended websites and published materials:

Websites:

- [www.usgs.gov](http://www.usgs.gov)
- [www.bgs.gov](http://www.bgs.gov)
- [www.geolsoc.org.uk](http://www.geolsoc.org.uk)

Published Materials:

- *Understanding Geology* by Webster. Pupil-issued textbook
- *Physical Geology* by Monroe & Wicander. (See Mr Cooper)
- *The Planet We Live On: The Beginnings of the Earth Sciences* (Free to download: [www.learndev.org](http://www.learndev.org) (see "For the Love of Science"))
- *Down to Earth* - Magazine available in WHSB Library
- *Geology Today* - Magazine available in WHSB Library

## AQA HISTORY GCSE

Key skills to be assessed:

- Narrative recollection and account writing
- Explanation of causation and consequence
- Comparison of time periods
- Assessment of the significance of events
- Explanation of change and continuity
- Explanation of problems
- Evaluation of sources and interpretations

Pupils will sit two 120 minute examination papers, which contain questions requiring written answers of varying lengths. There is no coursework or Non-Examined Assessment.

<p><b>Year 10</b></p> <p>Paper 2</p>	<p><b>Britain: Migration, empires and the people: c790 to the present day</b></p> <p><i>Pupils look at virtually the entire history of England, with a particular focus on migration to and from the country. This includes Vikings, Anglo-Saxons, Normans, Western exploration and early empire building, the relationship with America and the Caribbean, the development of empires in India and Africa and 20<sup>th</sup> century Britain.</i></p>
	<p><b>Norman England, c1066–c1100</b></p> <p><i>Pupils consider the impact of the Norman Conquest on England over the immediate, short and long term. This includes analysis of the original Conquest, an exploration of Norman methods of control, a study of the Norman Church and monasticism and a Norman Heritage Site case study.</i></p>
<p><b>Year 11</b></p> <p>Paper 1</p>	<p><b>Germany, 1890–1945: Democracy and dictatorship</b></p> <p><i>This course examines three key periods of German History – the latter stages of the Kaiserreich, the success and failures of the Weimar Government and the rise of Hitler and the Nazi Party. The focus here is on interpretations, together with some wider second order conceptual questions.</i></p>
	<p><b>Conflict and tension between East and West, 1945–1972</b></p> <p><i>This unit explores the conflict between East and West known as the Cold War, from its early stages through the Cuban Missile Crisis and the later reduction of tensions.</i></p>

# GCSE MUSIC

Three skills are examined in the GCSE Music course.

1. Performance (30%) Pupils perform one solo and one ensemble piece.
2. Composition (30%) Pupils compose two compositions.
3. Listening (40%) Pupils are examined on 8 pieces of music that they study during the course.

## Performance

Pupils are expected to be having individual private lessons on an instrument. Practice will form part of their music homework and they are expected to belong to a school ensemble if it is appropriate. The two exam pieces can be recorded at any time during the exam year. The solo recording must be finished by the end of the Autumn Term in Year 11. The ensemble recording must be done by the end of the Spring Term in Year 11.

## Composition

Many pupils find composition difficult so they must be willing to put time and effort into this work. Much of the homework will be composition exercises and it is helpful if pupils have a copy of Sibelius Student software so that they can work at home. Otherwise, the work must be done in the Music Department during lunchtimes or after School. Pupils will be writing complete compositions from the Spring of Year 10. The two examination pieces will be selected from these and will be completed under Non-Examined Assessment conditions. The first will be done in the Autumn Term of Year 11, the second in the following Spring. Pupils will be given advice on composition writing in class and specific help is available in the GCSE Music folder on Fronter. Helpful materials for composition can be found in the M12 store.

## Listening

There are four areas of study and each one takes approximately one term to learn. Each area has two pieces that are studied in detail. Pupils need to learn the main features of each piece, getting to know both how they sound and how they appear in the written score. In the examination they will have to recognize and describe these features. In addition to the set works, pupils will also be played extracts from unfamiliar music relating to the areas of study in the exam. As such they should aim to listen around the subject, engaging with other composers and performers who produced music of the same style as those studied in set works. Pupils can find recordings of each of the set works on Youtube or other music streaming sites. These recordings should be regularly listened to in order to ensure that they are familiar with the works. Helpful materials for improving listening can be found in the M12 store.

## The 12 Set Works

Area of Study 1 Instrumental Music 1700-1820	Area of Study 2 Vocal Music	Area of Study 3 Music for Stage and Screen	Area of Study 4 Fusions
<b>J.S Bach:</b> <i>Brandenburg Concerto            No.5 in D major,            movement III</i>	<b>Purcell</b> <i>'Music for a While'</i>	<b>S Schwartz</b> <i>'Defying Gravity' from            Wicked</i>	<b>Afro Celt Sound System</b> <i>Release</i>
<b>Beethoven:</b> <i>Piano Sonata Op.13 No.8            in C minor 'Pathétique,'            movement I</i>	<b>Queen</b> <i>'Killer Queen' from Sheer            Heart Attack</i>	<b>J Williams</b> <i>'Main Title/Rebel            Blockade Runner' from            Star Wars: Episode IV A            New Hope</i>	<b>Esperanza Spalding</b> <i>Samba Em Prelúdio</i>

**Theory Club** - Pupils who are struggling with the theoretical side of the course, such as chord writing or score analysis, should attend Theory Club on Thursday lunchtimes.

**Homework** will include listening to the set works and annotating the scores; working on composition (either on paper or on Sibelius); practising for performances (at least 20 minutes practice, five times a week); learning the technical terms and definitions used in music; researching musical styles and genres.

## GCSE PHYSICAL EDUCATION

In Physical Education pupils follow the EDUQAS course. Through studying GCSE Physical Education learners will acquire the knowledge, understanding, skills and values to develop and maintain their performance in physical activities and understand the benefits to health, fitness and well-being. Learners will develop theoretical knowledge and understanding of the factors that underpin physical activity and sport and use this knowledge to improve performance. Learners will perform in different physical activities. They will develop skills and techniques, select and use tactics, strategies and compositional ideas. Learners will develop their ability to analyse and evaluate to improve performance in physical activity and sport.

For the practical element pupils are required to offer 3 practical activities, worth 30%, comprising both team and individual sports. They will also complete a written analysis of performance worth 10%, each element contributing to a mark out of 80. For the theoretical component pupils will complete a 2 hour written examination out of 120 marks, making up the remaining 60% of the course.

Main Topic Areas	Sub-Topics
1. Health, Training and Exercise	<ul style="list-style-type: none"> <li>• Health, fitness and well-being</li> <li>• The contribution physical activity makes to health and fitness</li> <li>• Consequences of a sedentary lifestyle</li> <li>• Diet and Nutrition</li> <li>• Components of fitness</li> <li>• Measuring health and fitness</li> <li>• Methods of training</li> <li>• Training Zones</li> <li>• Principles of training and exercising</li> <li>• Warm up and cool down</li> <li>• Data Analysis</li> </ul>
2. Exercise Physiology	<ul style="list-style-type: none"> <li>• Muscular-skeletal system</li> <li>• Cardiovascular and respiratory systems</li> <li>• Aerobic and Anaerobic exercise</li> <li>• Short and long term effects of exercise</li> <li>• Data analysis</li> </ul>
3. Movement Analysis	<ul style="list-style-type: none"> <li>• Muscle contractions</li> <li>• Lever systems</li> <li>• Planes and axis of movement</li> <li>• Sports technology</li> <li>• Data analysis</li> </ul>
4. Psychology of Sport and Physical Activity	<ul style="list-style-type: none"> <li>• Goal setting</li> <li>• Information processing</li> <li>• Guidance</li> <li>• Mental preparation</li> <li>• Motivation</li> <li>• Characteristics of a skilled performance</li> <li>• Classification of skills</li> <li>• Types of practice</li> <li>• Data analysis</li> </ul>
5. Socio-Cultural Issues in Physical Activity and Sport	<ul style="list-style-type: none"> <li>• Participation</li> <li>• Provision</li> <li>• Performance</li> <li>• Data analysis</li> </ul>

# OCR GCSE (J625) RELIGIOUS STUDIES

For first teaching September 2016

5 Lessons / fortnight

Year 10 : 95 lessons (Component 1)

Year 11 : 65 lessons (Component 2)

<b>BUDDHISM (J625/04) 47 Lessons</b>				
<b>MODULE</b>	<b>TOPIC/BELIEFS &amp; TEACHINGS</b>	<b>KEY WORDS/CONTENT</b>	<b>PHASE</b>	<b>No Lessons</b>
1	Buddha & Enlightenment	Four Sights / Mara / Samsara / Rebirth / Enlightenment / Buddha / 3 Poisons	Term 1	3
2	The Dhamma	Three Jewels / Dependent Origination / Samsara / Rebirth / 3 Marks of Existence / Anatta / Anicca / Dukkha	Term 1	4
3	The 4 Noble Truths	Dukkha (Dukkha - Viparinama - Sankhara) / Samudaya / Tanha / 3 Poisons/Fires (Lobha / Dosa / Moha) / Nibbana / Middle Way / Maga (Eightfold Path) / Threefold Way	Term 1	10
4	The Human person & Human Destiny	Khandas (Five Aggregates) / Sunyata / Tathagatagarbha / Buddha-Nature / Arahat/Arhat and Bodhisattva	Term 1	7
5	Buddhist Ethical Teachings	Kamma / Punabbhava (Rebirth) / Metta / Karuna / Pancha Sila (Five precepts) / Paramitas (Six Perfections) /	Term 1	7
6	Buddhist Principles in Modern Life	Upaya Kausala / Skilful & Non-Skilful Action / Ahimsa / Dalai Lama	Term 1	4
	<b>TOPIC/PRACTICES</b>	<b>KEY WORDS/CONTENT</b>	<b>PHASE</b>	<b>No Lessons</b>
7	Worship	Meditation - Samatha, Vipassana, Zazen / Puja / Chanting / Mantras / Malas / Vihara / Sangha / Bikkhu / Bikkhuni / Stupa / Ruppa / Ordination / Patimokkha / Samanera / Triple Gem (Three Treasures)	Term 2	11
				<b>TOTAL 46</b>

*In addition to the above, we will allow a further three lessons for a media (film) case study*

<b>CHRISTIANITY (J625/1) 47 Lessons</b>				
<b>SECTION</b>	<b>TOPIC/BELIEFS</b>	<b>KEY WORDS/CONTENT</b>	<b>PHASE</b>	<b>No Lessons</b>
1	Nature of God		Term 2	4
2	God as Trinity		Term 2	4
3	Biblical Accounts of Creation		Term 2	4
4	Problem of Evil		Term 3	6
5	Jesus Christ		Term 3	6
6	Incarnation, Crucifixion, Resurrection, Ascension		Term 3	5
7	Concept of Salvation		Term 3	5
8	Eschatological Beliefs		Term 3	3
	<b>TOPIC/PRACTICES</b>			
9	Worship		Term 3	3
10	Sacraments		Term 3	3
11	Prayer		Term 3	3
12	Pilgrimage & Celebrations		Term 3	5
13	Church in the Community		Term 3	5
14	Mission		Term 3	4
15	The Church in the World		Term 3	4
				<b>TOTAL - 64</b>

## CALENDAR OF COURSEWORK AND NON-EXAMINED ASSESSMENTS 2020/2022

	Year 10											Year 11									
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
Art	Continuous Personal Portfolio and Sketchbook														Preparation for Final Examination						
	'Bonescape'					'Identity, my space, my place'					Trial Examination / Complete Coursework										
Computer Science					Non-Examined Assessment																
D&T: Product Design							Continuous Design, Making and Evaluation of the Project														
English	Speaking and Listening Coursework Assessment is continuous.																				
Geology							Field Trip / Non-Examined Assessment														
Music													Non-Examined Assessment				Non-Examined Assessment				
PE							Non-Examined Assessment														