



# Year 12 Summer Curriculum Update April 2024

# YEAR 12 SUMMER TERM OVERVIEW

It's shaping up to be a busy summer term as Year 12 come to the end of their first year as part of Walton High Post 16. Lots of students will be sitting exams in the coming months as part of their courses and we wish them every success. Later this term in June there will be formal mock examinations for most subjects and these mark an important part of the school year. The results from these exams will be used to inform predicted grades for universities and any other references, such as for apprenticeships or employment. Tutor sessions will be used to give students a dedicated time to revise content in preparation for these examinations as well as being able to touch base with their tutors about any issues as well as being a place to celebrate successes. More information regarding mock exams will follow in due course.

This term in Year 12 we have started the formal application process to Universities (UCAS). As part of this students have been introduced to the Unifrog platform to explore course options and also begin to fill in their UCAS application form as well as constructing their personal statement. They will also have the opportunity to attend the UCAS fair in June where they can find



out more information about the courses available for them to apply. The key dates for this process will be sent to you in due course. Tutor time has been used to ensure students are able to



successfully navigate Unifrog, where they are able to search for both university courses and apprenticeships. For those students who wish to pursue an apprenticeship or join the world of work, we will still be working on these personal statements as they are useful in application letters and forms.

We have also hosted the careers fair across both sites and all students were able to talk with a range of employers about options for future pathways. It was fantastic to see the high level of engagement shown by our students and they will be informed of any other employer pop-ins as and when they are organised.





## **ACCOUNTING**

Students have had a fantastic term. They have demonstrated positive learning behaviours in lessons, with excellent attendance and punctuality. They have also shown maturity and independence in their learning, which I hope continues for the rest of the year.

We have completed the principles of bookkeeping including reconciliations and corrections of errors using journals and the preparation of financial statements for sole traders and limited companies. They have prepared income statements and statements of financial position from a trial balance including adjustments from the application of accounting concepts. Furthermore, they have used the data from financial statements to calculate, appraise and interpret business performance by using ratios analysis.



This term we have started on Management Accounting where students will be learning about budgetary control, marginal costing, break-even analysis and decision making.

Students have had regular formative assessment throughout the term. They have completed an exam style assessment before Easter break. They will have an exam style mock exam in June to assess their knowledge of financial and management accounting.

## ANCIENT HISTORY

Year 12 students have continued to study The Greek City states. They have explored the reasons for Athens' defeat in the Peloponnesian War. Students have been justifying what they think is the most important factor with evidence from ancient sources and have observed how Athens saw a 'rise and fall'.

On the Roman side of the course students have been studying key events in the rise and fall of Julius Caesar. These have included the crossing of the Rubicon and Caesar's assassination. We will soon be moving onto the rise of Octavian, also known as Augustus, the first Emperor of Rome.







## ART

Students on the Extended Certificate BTEC course continue with Unit 3 – The Creative Process. This involves in-depth research into the creative process, its stages and its use by artists, designers and craftspeople. Students will then practically explore the creative process for themselves under the title of Evolution.



Students on the Diploma BTEC course have now completed studying Unit 4 Materials, Processes and Techniques and have moved onto their second exam of the year 'Developing and Realising Creative Intentions' where the theme is *Curious*.

Students on the Extended Diploma course have the same units as the Diploma students plus they have Unit 31 Surface Design for

Textiles. Students will be working on the completion of patterns for well-known store brands.

#### **BUSINESS STUDIES**

#### Year 12 A-Level:

A-Level students will be moving on to Units 5 and 6 of their specification. Unit 5: Decision making to Improve Financial Performance will explore how to operate a business in financial terms including an introduction to detailed financial documents such as Statements of Comprehensive income (Profit and Loss Statement) and Statements of Financial Position (Balance Sheets) and how these can be used and analysed to inform the financial security and success of a business. We then then go on to use techniques such as Budgeting, Break-Even Analysis and Cash Flow forecasting to

	Average rate of return = Average	В	(
ě	nnual return / (Initial investment Salvage value) * 100%	Values	
	Year 1	\$25,000	
1	Year 2	\$30,000	
	Year 3	\$35,000	
,	Estimated life	3	
	Initial Investment	\$3,50,000	
3	Salvage Value	\$50,000	
)	Average Annual Net Earnings	\$30,000	
0	9-		
1	Average Rate of Return	=B9/(B7-B8)*10	00%
2		-	

evaluate the potential of new business ideas and new products and services. Students will also look at the different sources of finance available to businesses and which are appropriate for particular situations when making decisions to improve financial performance.

Unit 6: Decision Making to Improve Human Resources will consider the topic of Motivation and we will be studying key motivational theories such and Maslow's Hierarchy, Hertzberg's Two Factor Theory and Taylor's Money as a Motivator Theory and how these apply to keeping the workforce motivated, productive and happy, ensuring a successful workforce and business. We will then move on to the topic of Human Resource performance and employer/employee relations, considering both the moral and legal aspects of this topic.

Students will be completing their first full mock examination paper which we will analyse and then identify effective practice for answering full 12, 16 and 25 mark questions.





## **BTEC Extended Certificate in Business:**

Students have now completed their core units 1 and 8 and will be moving on to work in preparation for their external examinations for Unit 2: Developing a Marketing Campaign and Unit 3: Personal and Business Finance. For Unit 2, students will apply their knowledge of the Marketing Mix to a given case study situation which is released a few days before their allocated time to complete the controlled assessment. They will be able to research the chosen industry sector and will then be given a marketing task to complete under controlled conditions. Unit 3 is a traditional written examination and concentrates on business and personal finance. Students will learn vital business finance techniques such as Break-Even Analysis and Cash Flow forecasting as well as using ratio analysis to analyse real business accounts including a profit and loss account and a balance sheet. Students should find the personal finance section of this unit particularly useful as it will enable them to control their own finance and will make them aware of the workings of overdrafts, credit cards and mortgages. Students will also explore the different types of student bank accounts and personal insurance. Students often refer to unit 3 as the most useful unit in terms of managing their life and finances going forward.

## **BTEC Diploma in Business:**

Students studying the additional content for the BTEC Diploma in Business will also be finishing their work on Unit 4, Managing and Event and Unit 9, Teams and Teamworking. Having now completed their events for unit 4, students will be evaluating the success of these events and completing a skills audit and performance review and discussing how they can develop their strengths and weaknesses to improve for similar task in the future. Students will complete a personal development plan which we will review periodically throughout Year 13 with a focus on how this can help them in the real world of further studies or industry work.

All of the above units are internally assessed in the form of research projects (with assignments). Students are able to achieve a 'Pass', 'Merit', or 'Distinction' grade for each piece of coursework but at Walton High, we encourage all students to aim for Distinction grades on their internally assessed units as these will support the more difficult externally assessed examinations that will be undertaken in Year 13.





## **COMPUTER SCIENCE**

Students will be looking at networks as a unit and at various computational thinking methods, whilst still developing their programming skills from GCSE to allow more practice at A level and help prepare them for their NEA. Programming paradigms and types of programming languages will be



looked at. Recently completed topics which includes Databases, Boolean Algebra, data types and structures will also be revisited and recapped intermittently to help solidify and apply required Maths skills for these units. Other extracurricular activities carried out this term included a visit to Bletchley Park to celebrate the STEM and Apprenticeship Festival alongside students from various schools across Milton Keynes and an internal seminar run by MK: U.

Extra support sessions are available and run on Mondays in BE3 over at WT to help enhance your learning across these topics.

Video tutorial links to current topics to support learning at home:

https://student.craigndave.org/videos/slr-11-networks

https://student.craigndave.org/videos/slr-7-types-of-programming-language

https://student.craigndave.org/videos/slr-10-databases

https://student.craigndave.org/videos/slr-18-thinking-abstractly

https://student.craigndave.org/videos/slr-19-thinking-ahead

https://student.craigndave.org/videos/slr-20-thinking-procedurally

## CREATIVE MEDIA

EARTH FROM SPACE

The blue marble as seen from space. We hear th
of Jerry Maguire, talking just to us.

JERRY'S VOICE
Airight so this is the world and
there are five billion people on
it. When I was a kid there were
three. It's hard to keep up.

AMERICA FROM SPACE

The great continent through mist and swirling skies. (Satellites and other pieces of skycasting equipment floa hv.)

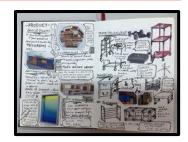
JERRY'S VOICE That's better. That's america. See, America still sets the tone for the world... Scripts for different mediums have been examined, from TV and Film to Games and Radio and students were tasked with an opportunity to write their own proposal and screenplays.





#### **DESIGN TECHNOLOGY**

Students have now begun and will continue their coursework. As well as gathering inspiration for a brand new and unique product, students will need a Primary user and focus group, so, please ask them if that can be you (if they haven't already asked you).



# **ECONOMICS**

Students have been studying Theme 1 – Introduction to markets and market failure and Theme 2 - The UK economy – performance and policies.

Having investigated how markets work in theme 1, students should be able to apply their knowledge and skills to a wide variety of situations and to different markets and examples of market failure,

Demand-Side
Policies

Monetary Policy
Fiscal Policy

Interventionist

including environmental market failures. They should appreciate that economic decisions relating to individual markets may be affected by developments in the macroeconomy.

For Theme 2, students examine the use of demand-

side policies, supply-side policies and direct controls as means of improving an economy's performance; Learners will be provided with opportunities to use this analysis to explore recent and current economic behaviour. They should understand, and be able to analyse and evaluate, macroeconomic policy.

# **ENGLISH LANGUAGE**

For this term Year 12 Language students are exploring the world of Child Language Acquisition. They

will learn interesting and diverse theories about how children learn to speak, read and write whilst investigating a range of data and applying their theoretical knowledge. They are already beginning to consider the debates that surround each theory in order to develop their own critical and evaluative responses.

Wave Model - movement
through social and
geographical space.

● Change Origin
1 - Wave 1
2 - Wave 2
3 - Wave 3
1
2 - Wave 3
1 - Wave Model of Language Change

On the other side of the course, we have begun to review and revise topics ready for Year 12 exams. All topics covered already this

academic year are being strategically overviewed and students are identifying their own areas for development prior to their Year 12 exams.

After exams, the world of Language Change awaits. They will consider the differences in how English has evolved and changed since Old English to the modern English we use today. They will begin to appreciate different models such as the wave model which can be used to interpret the process of language change and use them to reason and debate.





## **ENGLISH LITERATURE**

This term, students will be consolidating their learning in preparation for their Y12 exams. They will be actively revisiting all of their taught texts so far this year: *The Handmaids Tale, Feminine Gospels, The Great Gatsby* and Poetry and learning how to tackle the requirements and demands of their A Level papers.



Once exams are complete, students will begin their NEA or coursework element of their A Level. They will read and explore Bram Stoker's Dracula and be able to explore an aspect of the text for their own critical essay. Then, they have a free choice for their comparison text and will design their own question. This highly enjoyable yet challenging part of the course will develop student resilience as they will enhance their independent study skills which will be driven by a topic they enjoy most.

## **ENVIRONMENTAL STUDIES**

Our Environmental Science students have now finished their Energy Resources unit. This included a range of classroom activities from playing a board game from the perspective of an energy manager

and also designing an energy efficient car. They have also started to practice their essay writing skills in preparation for those 25-mark essays.

For the end of this academic year we are starting our Pollution topic which will carry on into Year 13. We will break this topic down into air pollution, water pollution, noise pollution and solid wastes.







## **FINANCIAL STUDIES**

We have completed unit 1 and unit 2 of CEFS. Students have successfully passed Unit 1 papers. They will be sitting for unit 2 paper A & B towards the end of April.



Students will then start on unit 3 of DIFS in prep for Yr13. This unit highlights the importance of financial sustainability for the individual, to enable the development of skills to make sure that an individual's financial capability is sustained over a period of time, taking into consideration the personal and external factors that lead to change. Students will understand the key external financial factors that influence financial

performance and the impact that this has on them as a consumer. They will also understand the importance of and be able to monitor budgets and adapt financial plans to meet changing circumstances in order to maintain financial sustainability and avoid-long term debt.

On completion of unit 3, students will gain an understanding of debt and borrowing alongside the impact of global events, developments, and ethical considerations that impact on the financial services industry and the consumer.

Students will have regular formative assessments throughout the term. Their summative assessment will be in January 2025 and May 2025 which includes 4 papers. Paper A will consist of 35 multiple choice questions and Paper B a pre-released case study essay. In part B students will assess their spelling, punctuation, and grammar.

# **FOOD AND NUTRITION**

Year 12 have successfully carried out their three-hour skills test by demonstrating and showcasing their practical and creative skills in the preparation, cooking, and presentation of their three chosen dishes. They worked from their own production plans and demonstrated excellent food safety and hygiene practices. This now completes their internal assessment.



They are now continuing final preparations for the written exam with the focus for this term being on analysing diets and evaluating their fitness for purpose. We are discussing the value of considering the complex and complementary interactions of nutrients in the body, and a person's eating habits and diet as a whole, to understand the implications of these for their health and wellbeing.





## **FRENCH**

Throughout this half term, Year 12 are looking at contemporary French music. They will consider the popularity of contemporary francophone music, as well as its diversity of genre and style. They will also be considering the trends in who listens to which music, and how this reflects on French society as a whole.



We will also build on their previous topic about heritage and discuss how French music can be safeguarded as a part of French culture. They will then move on to looking at French cinema, linking it to their studied film of "La Haine". They will consider why it is considered the "7<sup>th</sup> art form" in French society and how important French cinema is to the wider cinematic community.

## **GEOGRAPHY**

In Physical Geography, Year 12 will start a new topic about Glaciated Landscapes; looking at their distribution and the relevant landforms that can be found in them. This involves linking some of their prior knowledge of erosional and depositional processes from GCSE to a new landscape. This will be incredibly beneficial as students have the opportunity to see many of these landforms in person on their fieldtrip in the next academic year.



In Human Geography, Year 12 are finishing their first topic exploring 'Contemporary Urban Environments'. During this students investigated different processes that are impacting our Urban places and learnt about how dynamic these places are – looking at London and Mumbai in some detail. Students will then begin their study of 'Changing Places' – first of all looking at how we can describe and even measure a 'place' – exploring the processes and links that help to change not just the physical fabric of a place but also the population that lives there and individuals' emotions and us of a space. Students will be able consider how perspectives of place change and will investigate their own 'insider' perspective of Milton Keynes.

Across both sides of their A-Level Geography course, they have also started to think about which topics they might be interested in collecting data for as part of their Non-Examined Assessment (NEA). This NEA piece of work makes up 20% of their final grade so getting these first stages correct is really important. Next half term will be used to submit 'proposal forms' and consult teachers about appropriate techniques to collect, present and analyse data. Many students will choose to use the summer holidays to begin their investigation.





## HISTORY

#### **Walnut Tree**

By the Summer Term the 'Wars of the Roses' is well underway. Kings have come and gone, sometimes in short succession – Edward IV, Edward V and Richard III all in the space of two years, but in terms of lessons the quick pace of events stimulates some of the best discussions and debates of the course. The final part of the Summer Term focuses on the domestic and foreign policy of Henry VII – a King who made a boy work as a turnspit in the royal kitchens as a punishment, yet who at the same time could be ruthless and was rather unpopular by the end of his reign. Indeed by studying Henry VII Year 12 end their Summer Term by studying the 'Winter King', as Henry VII has been called by some historians.



#### **Brooklands**

Year 12 have now started looking at their "depth study" topic of Robert Peel and are examining his personality as well as his social reforms. They are examining the role of radical groups and the impact that these had on Peel's tenure as Prime Minister. Year 12 are starting to examine sources surrounding Peel in preparation for their source-based question, they are considering the provenance of sources as well as the source content before evaluating each source and concluding whether it is convincing, reliable and an accurate representation of Peels time as PM.

# **Walnut Tree and Brooklands**

The Year 12s have also embarked upon the final section of their Cold War unit. In this, they examine the various reasons for the collapse of the Soviet Union, the liberation of the satellite states and the destruction of the Berlin Wall.

The final part of the Summer Term, will also see the launch of the NEA unit, the end product of which, in the April of Year 13, is a 3000 – 4000-word essay, but the groundwork for this is laid at the end of Year 12 so that students are able to undertake some initial research and question framing over the Summer.





## **HEALTH AND SOCIAL CARE**

In Unit 5 (Meeting Individual Care and Support Needs), students will complete the assessment tasks within this unit, and will need to draw on their learning from across their programme.

In Unit 12 (Supporting individuals with additional needs) students will investigate the support provided to individuals with additional needs to explain how it is possible to overcome the challenges that these needs pose to daily living. Students will learn about the legislation, frameworks and policies that govern work in the health and social care sector and support the rights of individuals with additional needs. Students will complete the assessment tasks within this unit.

In Unit 1 (Human Lifespan Development) students will sit their exam on the **13 May 2024.** This unit is about factors that can influence human growth, development and human health. Some of these are inherited and some are acquired through environmental, social or financial factors during our lifespan.

Our students on the Diploma and Diploma course will also:

Complete their Unit 2 (Working in Health and Social Care) exam on the **17 May 2024.** This unit looks at the roles of organisations in providing health and social care services. We will also delve into the issues that affect access to services. We will learn about the roles of organisations that regulate and inspect health and social care services.

They are also starting Unit 18 (Assessing children's development needs) which delves into support needs for children. It looks at typical development and explores the Theories that aim to explain it. Students will take part in an observation of Kents Hill School and Nursery to observe children and apply theories of development to their development.

In Unit 6 (work experience) students will learn about the benefits of work experience in health and social care. They will examine how work experience can help them to develop personal and professional skills, such as communication and teamwork, and to understand more about the expectations of different professional roles. They will carry out work experience tasks, during a 2-week block placement in June/July, to meet set objectives.



In addition to their 2-week block placement our students have taken part in some presentations from the University of Hertfordshire in relation to Degrees and Degree apprenticeships.





## IT

Students in Year 12 will carry on practicing exam techniques and strategies to start preparing them for any applicable re-sit exams while carrying on with their mandatory coursework units. Unit 4 -computer networks will be the unit students round off with, this term for the introductory diploma students, whist the diploma students are working on their Unit 18- Computer Hardware, Unit 12-Mobile applications and Unit 8- Project managements coursework.



Extra support sessions are available and run on Mondays in BE3 over at Walnut Tree to help enhance your learning across these topics.

Using the video tutorial link below can also help add to the knowledge learnt in lessons:

https://student.craigndave.org/videos/slr1-3-computer-networks-connections-and-protocols https://student.craigndave.org/videos/slr-11-networks

## LAW

#### A Level Law

The Year 12 students are well on the way to a deeper understanding of the legal principles of Criminal Law and Tort Law and becoming more familiar with the relevant cases in both areas of substantive law. They have become acquainted with a range of Latin expressions and the English meanings.



Following on from the basic elements of Criminal Law applied to non-fatal offences they will proceed to delve into fatal offences such as murder, voluntary manslaughter and partial defences of diminished responsibility and loss of control.

Similarly, students will progress in Tort law from negligence to Occupiers Liability and its relevant defences.

Additionally, students will improve their knowledge and understanding of both the criminal and civil courts and the related lay and legal personnel, along the facilities in place to access justice and legal funding.





## **Applied Law**

Students completed the second (final) assignment for Unit 2 producing substantial quality work overall. This required them to advise hypothetical clients in various fictional non-fatal criminal offences scenarios. They considered the elements of the offences, the personnel in the criminal justice system, the courts and sentencing aims and types.

Unit 1 covering Civil Dispute Solving both in Court via litigation and outside court via alternative methods has begun. The substantive law focus here is on Tort negligence. Students will prepare for an external assessment in early May 2024 to complete this unit.

Following the completion of Unit 1 students will be introduced to more substantive criminal law relating to fatal offences such as murder and manslaughter to start Unit 3, which will also be an externally assessed part of the course.

#### **MATHS**

We have been thoroughly impressed by the way that Year 12 students have settled into Sixth Form life since September. We have been very impressed they are with the focused and positive attitude of students.

They are excellent role models to our lower school students, and we thank them for their effort and the examples they are setting. They have excelled in the role of Tutor Ambassadors, helping the Year 11 GCSE students in the Maths Monday incentive whilst been focused on the A level course.

With various assessments and new concepts such as integration and derivatives covered, the students have been pro-active, attending after school revision sessions, showing interest in ALD day and different aspects of school life. With another assessment coming up on the 19<sup>th</sup> March, it is ever so important that students continue to stay focused and disciplined during this period of time. We are all extremely proud of their efforts – keep it up!

#### **FURTHER MATHS**

We will be extending our exploration of random variables, looking at how continuous variables differ from discrete variables, exploring the links between probability and the areas under curves. In mechanics we will be exploring the links between impulse and momentum and in pure maths, the geometrical representation of three-dimensional equations, its links to matrices and the effect of the determinant.





## **MATHEMATICAL STUDIES**

Good luck to all Mathematical Studies student who will be sitting their Level 3 Certificate this Summer.

Paper1 covers: 15 May 2024

- 3.1 Analysis of data
- 3.2 Maths for personal finance
- 3.3 Estimation

Paper 2a covers: 23 May 2024

- 3.4 Critical analysis of given data and models
- 3.5 The normal distribution
- 3.6 Probabilities and estimation
- 3.7 Correlation and regression

Preliminary material is out now! Ask your teacher for a copy if you don't have one.

# **MUSIC**



Students will complete their controlled assessment, composing their first piece for their NEA. All students will perform part of their recital in a public setting. They will continue to study a range of music including electronic music and the piano music of Grieg.

# PΕ

Students this term will be completing their Unit 1 exam in the body systems and so far there have been some truly wonderful practice results and students will be approaching these exams with high hopes. Students are also continuing to help out in lessons for KS3 and learning from the experienced staff at Brooklands campus. Students will also be learning about Working Safely in Sport and completing coursework assignments in their Unit 17 Injuries in Sport module.



Year 12 students will be preparing to be involved with Sports Day or the first time as students who will help to run the day, timekeeping, measuring throws and supporting younger.





#### PERFORMING ARTS



Year 12 and 13 Diploma and Extended Diploma are preparing the opening of Brecht's 'Three Penny Opera' for performance assessment through which the remaining units will be assessed once the logbooks are completed. This will be a public performance and an opportunity for students to showcase their development in these studies from humble students interested in the Performing Arts to focused

performers as we saw in 'The Great Comet of 1812' last year to this final show.

We congratulate all our students, each of whom have a place of training in the first choice of drama schools. Thank you for all your work with us and we wish you the best in your future.

## **POLITICS**

In UK Politics the students are examining the core ideologies of liberalism and conservatism that are assessed in Paper 1. This involves an examination of the ideology's view on human nature, the state,

society and the economy, and the different ideological strands within each. Within liberalism a comparison between classical and modern liberals is undertaken, with an examination of five key thinkers to support the debate. Within conservatism a comparison is undertaken between Traditional conservative and New Rights conservatives, with an examination of five thinkers to support the debate. Students are assessed through a 'To what extent" structured question worth 24 marks of the 84 available in Paper 1.



Two weeks of study prior to the end of year exams will be dedicated to revision.

# **PSYCHOLOGY**



In the summer term students will be continuing our work on both Biological and Learning Psychology. We will be building on the theories and studies that we learnt in the previous term to deepen our understanding and apply it to real life issues within society.

Students have the opportunity to think critically about the research that they have conducted for two practical investigations and then write a report to discuss what they have found. Within Learning Psychology students will carry

out an observation into studying behaviour. Practical investigations will allow students to make use of different research methods to deepen their understanding of the ways that psychologists can conduct research as well as their associated strengths and weaknesses.





We will look over a range of issues and debates that can be linked to each of our four main topics studied over the course of the year, to discuss the impact that these have on our psychological understanding as well as how psychology is used in real life.

# SCIENCE - BTEC

This term all students will be preparing for the externally assessed unit 3 Practical Investigation skills exam, to be held on 4 May 2023. Extended Diploma and Diploma students will be starting Unit 4, Laboratory Techniques and their Application. In this unit they will learn about health and safety in different organizations and also investigate the manufacture of an organic liquid and an organic solid. As part of this unit students will visit the Milton Keynes Waste



Recovery Park. Extended Diploma and Diploma students will also complete unit 8, Physiology of Human body Systems, learning about the musculoskeletal system, lymphatic system, digestive system and associated disorders.

Extended Diploma students will be studying unit 20 Biomedical Science, looking at areas such as hematology, histology and cytology. They will also be starting a new Unit 16, Astronomy and Space Science. In this unit students will learn many fascinating facts and theories and an insight into human innovation and adaptability.

## SCIENCE - BIOLOGY



Our Year 12 Biologists have been studying a module on Exchange and Transport. This module explored the structure and function of transport systems in living things. The compulsory practical element of the course also included a lamb heart dissection with students developing their dissection and biological drawing skills.

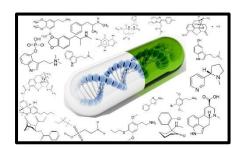
Alongside this module students have also been studying their final module of Year 12 on Biodiversity, Evolution and Disease. Starting with the study of diseases they have recently carried out a microbiology practical using aseptic techniques and looking at the effectiveness of antibiotics. In the summer term they will continue to study plants and plant transport systems and will be completing their study of evolution and finally they will consider the importance of conservation and maintaining biodiversity.





## SCIENCE - CHEMISTRY

At the beginning of the term students have been working towards their unit 3 test on Periodic Table and Energy which then leads on to the final unit for Year 12 unit 4 – Core Organic Chemistry.



Students will be studying the basic concepts of organic chemistry - the chemistry of carbon compounds. This will include students looking at the structures and reactions of several organic chemistry families including alkanes, alkenes, alcohols and haloalkanes. These chemicals mold our modernday lives, finding use in plastics, fuels, pharmaceuticals, clothing and many more. Students will also study two

analytical techniques (mass spectroscopy and Infra-red spectroscopy) used to identify organic molecules from various peaks within the spectra. Lastly students will start to learn about the synthesis methods used to make different organic molecules which will be continued in unit 6 in year 13. Students will consolidate their learning towards the end of June in their Year 12 mock which will test all their knowledge learnt in Year 12 giving an indication of how they are coping with the demands of the course. Students will also be taking part in the School's Analyst Competition run by the Royal Society of Chemistry where they will work as teams to demonstrate and expand on their existing chemistry knowledge and skills using practical techniques to solve problems.

Just before heading into Year 13 students will be doing a little bit of research into topics, they will be learning in Year 13 and producing newspaper articles and presentations to show their findings.

# SCIENCE - PHYSICS

Starting in February, Year 12 began to look at Waves. This involved concepts they had met at GCSE such as reflection and refraction but then extended into a number of new concepts such as phase, more in depth optics, Young's Double Slit Experiment and finally stationary waves and their applications in acoustics and musical theory. Students also gained more in-depth knowledge of Mechanics and Materials by looking at Newton's 3 Laws of Motion, and in particular gaining a deeper understanding of momentum and a new idea — impulse.



Starting this summer term, we will be breaking down many of the ideas just discussed by looking at Quantum Theory. This will include the photon, photoelectric effect, and Einstein's photoelectric equation. This will all be tied back to waves however by looking at the interesting theory of Wave-Particle Duality as proposed by de Broglie. Students will also be learning about materials, in particular revisiting Hooke's Law from GCSE, but also learning about tensile stress and strain and classification of materials. This is all in preparation for their mock exams later this term in which all Year 12 content will be assessed. After this, students will start looking at Year 13 content, including the eagerly awaited Astrophysics and Cosmology module as well as some further mechanics such as circular motion and pendulums.





## **SOCIOLOGY**

In the spring term students finished studying Culture and Identity where they looked at how the different sociological approaches view the formation of culture and how they are formed, the different conceptions of culture, including subculture, mass culture, folk culture, high and low culture, popular culture and global culture.



Students also completed the Education unit by looking at education policies and the profound impact of them on society.

In the summer term they have begun to look at sociology methods of research in preparation for one of the questions that students must respond to in the AQA A level exams the Methods in Context question. This question asks students to think like a sociologist and consider how they are going to conduct research on a specific group about a specific topic related to education.

Alongside this unit students will also continue to explore advanced sociological theory with one of their teachers, in terms of the advanced sociological theory lessons, this will consolidate and stretch and challenge the students.

#### **SPANISH**



Students will continue to learn about essay writing in Spanish. We will discuss how to structure and provide evidence for our points linking this to the social and cultural context of the film "El Laberinto del Fauno". Students will also tackle exam-style questions in preparation for their mock exam.

In term 3b they will start their independent research project which will be related to an aspect of the Hispanic world that has fascinated them and that they wish to explore further. Students will consult sources in Spanish and investigate various issues.