

YEAR 10 CURRICULUM LETTER: AUTUMN 2023



Welcome to our Autumn term Curriculum Letter. There are plenty of activities for students to get involved in this term and many departments will be running exciting activities in the run up to Christmas. Watch out for the Extra-Curricular Clubs list - out next week.

More general information about the curriculum can be found [here](#).

The departments that teach your child have contributed below to let you know what students will be studying this term.

Art

In Art, students will carry out an investigation into the work of the St. Ives Artists including a visit to Tate St. Ives.

Business

As a brand new subject, students start at the beginning - by looking at what is needed when setting up a new small business! We analyse the skills and characteristics required as an entrepreneur and what to look for in spotting a business opportunity. We will then move on to discussing how businesses can use market research to develop and refine their business ideas. Students will learn how businesses identify gaps in the market and what is meant by market segmentation as well as learning how to analyse the competitive environment firms operate in.

Careers

As part of their PSHE lessons students will start creating a Careers Action Plan.

Computer Science

In Computer Science, students will develop their knowledge of Computer Hardware. They will carry out theory in Logical Operations. Students will carry out practical activities in Problem Solving and Algorithms and Programming Constructs.

Practical Component - Students will continue to develop their skills in Python and they will also work on the development of algorithms. This enables them to start individually tackling simple programming problems. Theory Component - Students will work on Logical Operations and the use of Boolean logic - this will assist in their understanding of the use of algorithms.

Drama

'Introduction to Drama GCSE'

Pupils will refresh/learn the history of theatre and focus on specific areas. Starting with Greek theatre and Commedia dell'arte, they will present pieces they have devised themselves using stock characters, masks, stylised body language and typical scenarios. Pupils will refine their skills with the 'basic' drama skills such as freezes, improvisation, physical theatre, characterisation and projection. They will perform a monologue to the class. Towards the later half of the term, they will be working together on their first devised piece from a stimulus.

English

To begin their GCSE course, students will focus on their first English Literature text: the AQA GCSE Poetry anthology. They will explore a number of poems, from different time periods and genres, which all present ideas about the themes of 'Power and Conflict'. They will explore poems that cover a range of global conflicts from the 19th century to the modern day. From Tennyson's 'The Charge of the Light Brigade' to Carol Ann Duffy's 'War Photographer', students will learn about differences in methods of warfare and the conditions for soldiers and civilians as well as exploring the perspective of poets, understanding the impact of propaganda and our changing sensibilities surrounding the effects of mental trauma. They will draw on their knowledge and skills from Key Stage 3 to help them analyse, make comparisons and evaluate the poems in their contexts.

After half term, students will begin their study of their 19th Century Literature set text - A Christmas Carol by Charles Dickens - building their analytical skills in response to short extracts and developing a critical understanding of the writer's presentation of key ideas/characters/themes across the whole text. Pupils will also be given the exciting opportunity to watch a production of A Christmas Carol by Quantum Theatre in school on Thursday 23rd November!

Food & Nutrition

Students will study topics including nutrition, food science, food choice and international cuisines. They will also cook a variety of savoury and sweet dishes.

Geography

After an initial exploration of what natural hazards are, Year 10 students will be learning about how hurricanes form, their devastating impacts and their links to climate change.

Students will then go onto look at extreme weather at home in the UK and recall recent heatwaves,

snowfall and winter storms that have caused havoc on the UK in recent years. We will then link these events to climate change and investigate the different man-made and natural causes of climate change.

Geology

Students will be completing their work on the geology of the planets. They will then study how minerals are formed - Theme 3 - "The Magic of Minerals", how they are used and how they are extracted. This links to both Theme 1 - "Things Geological" and Theme 2 "A Jewel in Space". They will then apply this knowledge (the hardness of minerals / how easily minerals can be broken down) by starting Theme 4 - "Dynamic Deposition", where they will study the formation of both clastic and carbonaceous sedimentary rocks.

History

Medicine through Time: Middle Ages and Renaissance. Students develop a knowledge of medieval hospitals and surgery and what the key changes were during the Renaissance.

Mathematics

Students will cover the following topics:

Quadratic Equations - used for modelling and linking to topics studied in physics. It is also useful preparation for those students who will go on to study further maths.

Simultaneous Equations - Building on knowledge of linear equations from stage one, the concept of two variables, graphical solving is also used in science.

Combined Events

Mutually Exclusive Events

Independent Events and Tree Diagrams

Conditional Probability

Venn Diagrams and Set Notation

Growth and Decay

Compound Measures

More Compound Measures

MFL - French

In French, students will complete a topic called: Le grand large (holidays)

They will learn how:

- To discuss where they usually go on holiday and what they normally do there
- To compare and contrast present, past & future holidays
- To discuss their dream holiday (conditional tense)
- To book a hotel and review their stay

Les vacances! Students will learn how to say what they did on holiday using reflexives, say what dishes they (dis)liked and why, review a meal in a restaurant and talk about holiday disasters. Being able to use avoir & être in the imperfect tense and knowing a variety of past participles from the perfect past tense will enable students to pick up the pluperfect tense more quickly, an additional tense which will allow them to show a much greater complexity of language in their speaking and writing skills.

MFL - German

In German, students will complete a topic called: Menschliche Beziehungen

They will learn how to:

- Describe people in detail
- Talk about how their get on with people and why
- Discuss what their life was like when they were a child
- Talk about their role models

They will then transfer and build on this knowledge to discuss their role models. They will use different tenses to describe what their role model has done and why they are a good role model.

Music

This term is an introduction to performance and composition and theoretical musical terminology. Students will use their exploration of the musical elements to begin their first composition and their first performance assessment.

PE

CORE PE:

Students are offered a range of activities that develops their personal fitness and promotes an active, healthy lifestyle. They are able to choose 2 per week which they then develop skills in for half a term.

They are taught to use and develop a variety of tactics and strategies to overcome opponents in either hockey, badminton, basketball, volleyball, handball, rugby, netball, or football, depending of which of these they choose.

They can choose to work on their own fitness in our fitness suite.

GCSE PE:

Students build on their knowledge from KS3 PSHE on the topic of Physical, emotional and social health, fitness and well-being. They develop understanding of the difference between physical, emotional and social health and the impact of exercise. Students also gain the understanding to be able to explain how lifestyle choices positively and negatively affect health. Students then analyse in detail the effect diet, alcohol and nicotine have on health, fitness and wellbeing.

Students will develop their understanding of the structure and functions of the musculo-skeletal system, including it's importance in physical activities. They will learn about the different movements possible and which main muscles are used in which physical activities. They will learn how the muscular system works with the skeleton to allow participation in physical activity and sport.

PSHE

Year 10 has two strands this year: looking at the wider world including what is citizenship, human rights, role of the media, first aid, managing money. The other strand deals with RSE such as impact of cyber bullying, good mental health, healthy/unhealthy relationships, pornography, self-examination to stay healthy, fertility and pregnancy.

Religion, Philosophy and Ethics

The first unit studied in GCSE RS is "Relationships and families" including religious views on sexuality, contraception, marriage, divorce, gender equality and family life.

Students will then start the unit on Jewish beliefs. This links to what they have done on Judaism in year 9 and Jewish practices which is studied later in the course. In Ethics and Values students are looking at extremism and human rights issues.

Science

Biology:

We are finishing off the Infection and response unit and then moving onto the nervous system. During the unit on infection and response students cover how body responds to attacks from pathogens and then consider how we can use this knowledge to look at the development and use of vaccines. This gives us chance to cover lots of real-world examples e.g. herd immunity and the covid-19 vaccine. We finish this unit by looking at the development of drugs.

We will then be moving onto the human nervous system. Students should know the structure and function of the nervous system and Triple scientists expand this knowledge by looking at the brain and the eye. The knowledge gained here will allow us to look at homeostasis and body control in year 11.

Chemistry:

Students completing both the Combined and Separate Science course will develop their knowledge of Acids and Bases from KS3 by looking at Salts and Neutralisation. They will then look at the topic of Energy and its importance in chemical reactions.

In this topic, students learn about the factors that affect the rate of a reaction, including temperature, surface area, concentration, and pressure. Students should be able to explain the effect of each factor on the rate of reaction using collision theory - understanding that each factor increases the frequency of effective collisions, not just the number of collisions. They should also be able to explain the effect of catalysts on the rate of a reaction in terms of providing an alternative reaction pathway with a lower activation energy.

Physics:

All students in year 10 will be studying the same topics in physics this term. They will develop their knowledge of atomic structure and radioactivity. This is developed by looking at how electrons flow in circuits and how mains electricity powers devices in our homes. Separate Science students, not Combined Science ones, will also complete the topic of IR as part of Thermal energy transfers started last year.

Students complete the Electric Circuit unit, including required GCSE practicals on the topic. This topic was introduced in year 7 and the complexity of the components and circuits used as well as the mathematical complexity is developed at Key Stage 4. They develop their understanding of simple circuits, what current, voltage and resistance are and how we can use these definitions to calculate the energy transferred by different components in a circuit. Students will complete a range of tasks in their "Learning Grids" and online simulations and quizzes via our online textbook "Kerboodle".



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