



YEAR 10 CURRICULUM LETTER: SPRING 1



Welcome to our 1st Spring 1/2 term Curriculum Letter. There are plenty of [extra-curricular](#) activities for students to get involved in this half term and many departments will be running exciting activities.

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

This half-term, students will take part in our 2nd Challenge Day. Year 10 will participate in a Team Building Day on January 27th.

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

Art

Students are continuing their investigation into the work of the St. Ives' artists including a visit to Tate St. Ives. They have already completed a sketchbook submission and an academic poster for this. We now move into the phase where they will be working on preparatory sheets and on into compositional 'thumbnails' for possible final pieces. The final piece itself will be done in the Yr 10 Mock Exam (10 hours over 2 days). The dates for this are 27th and 28th March.

Business Studies

In Business, students have now finished 1.2 and almost completed unit 1.3, where they have learned how to calculate costs, revenue, breakeven and cashflow. Some classes will be spending time reviewing and consolidating this understanding before moving on to the next unit, 1.4, where they analyse the options for start-up and small businesses. This topic starts with an investigation into factors affecting the choice of location and then leads into more technical aspects, for example they will learn about limited and unlimited liability, and the implications of this for a small business owners. We also evaluate different forms of business ownership including operating as a sole trader, partnership or private limited company. Unit 1.4 will culminate with an investigation of the pros and cons of operating as a franchisee.

Computer Science

Students will be working on Python Programming, programming algorithms, computer networks and handling data on computers.

Drama

Following on from last term, class and small group work in lessons studying the set text 'Thing I know to be true' including exam question preparation. Continue reinforcing understanding and knowledge of drama production with a trip to a theatre. Further independent research of the key performance skills introduced last term. All students to complete their own half term project on the 'Things I know to be true' to provide technical knowledge needed for questions in the GCSE exam.

English

Building on language analysis and creative writing in Year 9, students are analysing and evaluating unseen pre-1900 fiction extracts and developing imaginative writing skills - Edexcel English Language Paper 1.

Food & Nutrition

Students will be cooking a variety of dishes. They will learn how to joint a chicken and fillet a fish. They are studying Macro and micro nutrients.

Geography

Students are currently exploring the Urban World topic in their GCSE course and investigating the unique city of Rio de Janeiro. Students will try to make sense of this city of contrasts with its photogenic beaches and high-rise luxury apartments alongside ramshackle slums. Students will then move onto explore issues and challenges closer to home in UK cities such as Bristol.

Geology

Dynamic Deposition (Sedimentary Environments), Magma on the Move (Igneous Processes and Environments).

History

Students are continuing their work on GCSE Medicine, building on their knowledge of the Medieval Period and analysing the Renaissance, 19th Century and Modern Medicine, with an in depth focus on the British Sector of the Western Front 1914 - 1918.

Mathematics

Students this half term will be looking at:

Probability including tree diagrams, Venn diagrams and set notations. Compound measures and rates of flow. Percentages with repeated percentage change.

MFL - French

Students will learn how to discuss traditional and exotic foods, talk about preferred methods of transport, give opinions on shopping and talk about your area.

In the autumn term of Year 10 they learnt how to use the conditional and pluperfect tense. They have also been using a) prepositions before countries e.g. en/au/aux b) direct object pronouns e.g. je l'aime - I love him/her c) après avoir nagé..

By being able to use a variety of tenses, students will show much greater complexity of language in their speaking and writing skills. Having already used après avoir nagé, they will be able to use this structure with other past participles in order to develop the complexity of their work.

MFL - German

Students are learning to describe their home using a range of tenses and adjectives.

Music

Students continue to study the different periods of music chronologically.

Following on from the Romantic period, they will explore music from contemporary composers, including an exploration of minimalism and serialism (AoS4). They will also record their first solo performance.

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, volleyball, handball, rugby, netball, or football, depending of which of these they choose.

They can choose more aesthetics options like yoga or trampoline or they can choose to work on their own fitness in our fitness suite.

GCSE PE:

This term involves continuing learning about the structures and functions of the cardiorespiratory system from last term and focuses on what happens when we exercise.

This will be used for the analysis section of the students Personal Exercise Programme which they will start to create towards Easter.

They will also start to study the areas below which will also be used in their P.E.P.

- the relationship between health and fitness and the role that exercise plays in both.
- the components of fitness, benefits for sport and how fitness is measured and improved.

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, selfexamination to stay healthy, fertility and pregnancy

Religion, Philosophy and Ethics

GCSE RS - Jewish beliefs, Human rights and social justice.

Science

Biology:

Students are finishing the unit on the nervous system, where they will then move onto the endocrine system. This involves looking at how hormones are used to control the body, particularly looking at the menstrual cycle. Students will also study plant hormones which will allow them to move onto a unit studying plants and photosynthesis.

Chemistry - Periodic table and structure and bonding:

Prior learning.

Students are familiar with particle diagrams and energy transfers when substances change state. They have a basic understanding of the particle model. Students have used the word bond or combined to refer that compound and made when elements bond.

Structure and bonding.

In this module, students build up on their understanding of the states of matter from KS3. Students learn about the different types of bonding in substances. They should know that covalent bonding is the sharing of one or more pairs of electrons between non-metal atoms; ionic bonding involves a metal and non-metal atom, with the metal atom losing one or more electrons and the non-metal atom gaining one or more electron; and metallic bonding involves a delocalised sea of electrons surrounding the positive metal ions. Students learn how the bonding of a substance affects its bulk properties. They should be able to describe the difference in bonding and properties of giant ionic structures, simple covalent molecules, and giant covalent structures (including different arrangements of carbon). Finally, students learn about nanoparticles, their properties, and are able

to explain how the surface area to volume ratio of nanoparticles is different to bulk material, and how this affects their uses.

Prior learning.

Students learn about the periodic table in year 8 (C6). They should be able to find different elements in the periodic table. They should be able to identify metals and non-metals depending on their location on the periodic table. They have learnt what periods and groups are and how elements are placed in the periodic table based on their properties. They have a good understanding of the history of the atom from C1 in year 9 too.

Periodic table.

Students will learn about the development of the periodic table, including the work of Dalton, Newlands, and Mendeleev. Within this, students should have built upon their understanding of the development of scientific models from C1 Atomic structure. Students should understand how each stage in the development of the periodic table was facilitated by new evidence becoming available. They should also be able to identify the importance of an inherent pattern to the elements and how this guided Mendeleev's thinking. Students should also develop their understanding of electronic structures from C1 Atomic structure and apply this to the arrangement of the periodic table and the chemical properties of Group 0, Group 1, and Group 7 elements. They should also be able to identify trends in properties and reactivity, and higher-tier students should be able to explain these in terms of the electronic structure of the elements.

Finally, students studying AQA GCSE chemistry were introduced to the properties and reactions of the transition elements. Students should be able to compare these with the elements of Group 1, identify that some transition elements can form many different ions, and recognise that they are used as catalysts.

If students continue to study chemistry Alevel they will study the periodic table and periodicity in more detail linking the elements/ position in the periodic table with their physical and chemical properties.

Physics:

Students will learn about the electricity in the home in which alternating current is required. This would allow them to compare the similarities and differences with the electric circuits and direct current studied in the previous term as well as to make use of concepts studied in year 9 such as power in electrical appliances to determine which fuse is best for each appliance. After this unit they will have completed the list of topics of the first Physics paper for their external examinations in year 11. Then, they will start the content of the second paper which includes the unit of forces as vectors, in which drawing accurate force diagrams will be very relevant. They will also complete a range of tasks in their "Learning Grids" and online simulations and quizzes with 'Kerboodle', our online resource.



"A haven of inspired, structured academic provision... supported by a nurturing and enlightened pastoral approach and a wealth of opportunities. Girls leave with the belief that everything is attainable." - GOOD SCHOOLS GUIDE 2022

