

Year 10

Spring 1st Half-Term

Maths

This term we will start by consolidating KS3 knowledge of angles and polygons. Students will use conventional terms and notation and draw diagrams from written description. They will apply the properties of angles at a point, on a straight line, vertically opposite angles, understand and use alternate and corresponding angles on parallel lines, derive and use the sum of angles in a triangle to deduce and use the angle sum in any polygon, and to derive properties of regular polygons.

We will then recap our previous learning of solving linear equations to be able to rearrange formulae to change the subject.

We will finish the term with a new topic; sequences. Students will generate terms of a sequence from either a term-to-term or a position-to-term rule. Recognise and use sequences of triangular, square and cube numbers, simple arithmetic progressions, Fibonacci type sequences and simple geometric progressions. Finally, students will be able to deduce expressions to calculate the n th term of linear sequences.

English

This English term, year 10 will be given an introduction to a modern play with a study of characterisation plot and dramatisation. Pupils will explore dramatic conventions and their impact on different audiences. Pupils will learn the importance of social and cultural context in conjunction with structural devices, in order to show how they support the writer's themes and overarching message. Subject specific vocabulary will be used in context, in oral and written tasks in order to produce writing that is appropriate to task, reader and purpose. The reading sessions will consist of retrieval, inference and clarifying. Alongside the study of a modern play, year 10 will work towards their level 1 and level 2 functional skills. They will practise their reading skills and produce a range of non fiction texts such as articles, letters and a variety of speeches in preparation for their functional skills exams.

Science

Rap students will be able to compare meiosis and mitosis and explain the structure of genes and how they are used to synthesis proteins. Year 10 students will be able to explain the process of mutations, natural selection, selective breeding, genetic engineering, evolution as well as evaluate the evidences for these processes. Also look at the structure of genes and how they are used to synthesis proteins. Students will be able to describe the process of electrolysis and predict the products of acids reacting with bases. Students shall define; transverse/longitudinal waves, amplitude, wavelength, period and frequency and identify them in diagrams, calculate wave speed, and also explain how electromagnetic waves are grouped giving their key properties and uses.

Art

This term students are investigating the theme of Power and Weakness. They are creating mind maps, artist research pages and photomontage around the theme. This work goes towards their GCSE portfolio, which will be marked in Y11 or taken to their next school.

ICT

Students will be learning about managing information, including organising files and folders making backup copies. *Functional Skills Level 1 content: use search techniques to locate and select relevant information / select information from a variety of ICT sources for a straightforward task.*

PSHE

Healthy relationships - In PSHE this term we will build on previous learning around healthy and unhealthy relationships, exploring expectations, misconceptions and challenges around sex, including the impact of the media and pornography. We will learn how to recognise pressure, coercion and exploitation in romantic or sexual relationships, revisiting consent and identifying why and when relationships breakdown or experience strain. We will explore the impact of relationships on emotions, learning strategies of emotional resilience and conflict resolution. We will use active learning techniques to practice the skills needed to access local. and national services.

PE

Basketball - Students will learn how to use the dribbling skill set against a defender. They will understand the mechanics of playing both on ball and in team defence. We will compete 3 v 3 and 4 v 4 at the coaches discretion.

Work Skills

- Focuses on getting ready for and going to work as an introduction – what are the key elements to consider (getting up on time / dressing / having breakfast / travelling)
- How to plan a day (including before and after work) – key timings
- Items possessions that can / must be taken to work, and those that should be left at home
- How long will it take to get to work – bus / train times / allowing time for changes, allowing time to get to and from the stations. Calculating the journey time – Students perform related tasks to calculate journey times / changes etc as appropriate (meeting / friends and family) before repeating for a potential employer
- How to source timetables
- What to do if there are delays / cancellations
- The need for passwords for electronic systems / equipment and confidentiality
- The need for security passes and keeping them safe

Citizenship

Theme B: Democracy at work in the UK.

This term we will explore the features that ensure there is a strong democracy in society and will learn about the difference between direct and representative democracy. We will also discuss the advantages and disadvantages of both systems and scrutinise the importance of elections to democracy. Finally we will investigate two different types of voting systems: First Past the Post and Proportional Representation.

Catering

Pupils will be deepening their knowledge about Food choice focusing more on moral and ethical reasons. We will be looking at fair trading and animal welfare. Pupils will gain knowledge on how poverty can impact on food choices and how ethics can have an impact on the foods we choose to eat. Pupils will explain why to them it is important to gain home cooking skills as part of their BTEC Level 1 portfolio.