

# Year 11

## Autumn 1<sup>st</sup> Half-Term

### Maths

This term we will be looking at probability and proportion. Students will be able to record, describe and analyse the frequency of outcomes of probability experiments using tables and frequency trees. We will apply ideas of randomness, fairness and equally likely events to calculate expected outcomes of multiple future experiments. Students will be able to relate relative expected frequencies to theoretical probability, using appropriate language and the 0-1 probability scale. Next, we will finish the term looking at proportion. Students will recap their knowledge of reciprocals in order to understand that  $X$  inversely proportional to  $Y$  is equivalent to  $X$  proportional to one over  $Y$ . Students will be able to interpret equations that describe direct and inverse proportion.

### English

Year 11 will revise *An Inspector Calls*, revisiting the writer's intention and subsequent themes of responsibility and equality. Pupils will retrieve and recall their previous knowledge of characterisation and dramatic devices. Year 11 will answer exam style questions commenting on language techniques, the connotations of particular words and the effect they have on the reader. Students will use their understanding of social and historical context on British values at the time and the impact on WWI & WWII. Pupils will also continue to work towards their level 1 and 2 functional skills reading writing and speaking and listening.

### Science

Students will examine the key organelles and their functions in eukaryotic and prokaryotic cells, as well as describe the cell cycle and give examples of specialised cells with their unique characteristics. Students will be able to evaluate how stem cells are used in animal and plant cells. Diffusion, osmosis, and active transport will be compared and examples will be given. Students to describe how temperature and substrate concentration effect enzymes. Students must explain how the structure of arteries, veins, and capillaries, as well as major plant structures and cells, is related to their function. The main features of an atom and the periodic table, including how they were established, common trends between different groups, metals and non-metals, and complete/balance word and symbol equations are all covered in chemistry (inc atomic mass and charge calculations). There will be many energy exchanges and computations conducted. The advantages and disadvantages of various renewable and non-renewable energy sources will be studied. Students will learn how to define electrical charge, current, potential difference/voltage, and resistance, as well as how to calculate the majority of their values using serial and parallel circuit diagrams and IV graphs. Various required practical to be conducted and analysed.

### Art

This term all Y11 students are working towards GCSE art. They 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 May.

## ICT

Students will consider Internet Freedoms and limitations and the importance of Data Protection. We will learn about Spam and Phishing and Security and Firewalls. *Functional Skills Level 2 content: plan solutions to complex tasks by analysing the necessary stages / select, interact with and use ICT systems safely and securely for a complex task in non-routine and unfamiliar contexts.*

## PSHE

Health and Wellbeing

Building for the future

We will be exploring stress, stress management and how to maintain a healthy self-concept through building emotional resilience and developing healthy habits for self-care. We will focus on balancing ambition, motivation and perseverance for future opportunities.

## PE

Boxing - students will have selected their Stance and to develop footwork, and be able to demonstrate a number of combinations, they will also be able to demonstrate each style of punch. The level of sparring may change (coaches discretion) discipline – explain how to develop their Mental Toughness.

## Work Skills

Students will look at the local labour market, and investigate the different sectors, to promote future and local work opportunities for their students and to support preparation for the world of work. Students will also look at why jobs change over time and how they are distributed across the county.

## Citizenship

*Theme D: Power and influence*

This term we will explore the role of the media in influencing and informing the public; reporting news accurately; investigating issues and exposing problems in the public interest, scrutinising the government and others in power and holding them to account for their actions. We will discuss what is meant by the term 'responsible journalism' and other key terminology associated with responsible journalism: verification, independence and accountability. We will also consider how the media is regulated in the UK and examine the case for greater media regulation. Finally use a case study of the MPs' expenses scandal to explore how the media supports the values of a democracy.

## Catering

Pupils will be introduced to their BTEC Level 2 home cooking skills award. We will be recapping our prior knowledge of Knife safety, how to handle and cook food safely and how we classify foods. Pupils will identify two dishes in which they would like to make for a special occasion (birthday). They will find recipe sheet and look at the dishes nutritional value.