



The Talentum Learning Trust



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Our Ref: JNS/jc

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Dear Parents / Carers

Curriculum Course Content Year 10

Please find below information on course content for this half-term.

At Westwood College, we firmly believe that a broad and balanced curriculum is at the heart of a good school and a rounded education. Students in all year groups have the opportunity to access a wide range of courses, all taught by experienced subject specialists.

Whilst we work hard with students to ensure that they understand the structure of their courses, we also feel that it is important that parents and carers are able to access this information in order to support students with their learning. Detail of all our courses, including the Learning Journeys that map the content of each, can be found on our website under the 'Curriculum' tab <https://wwc.ttl.org.uk/curriculum/>

We have also included below a short summary from each subject covering this term for your convenience.

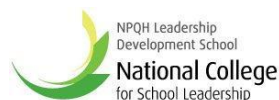
Please do not hesitate to get in touch if you have any questions.

Yours faithfully

Mr S Jones
Assistant Headteacher

Inspiring Students for Ambitious Futures

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English

In the first term in Year 10 English students will be studying Shakespeare's 'Macbeth'. Utilising the skills and understanding they developed during their study of 'The Tempest' last year, students will read the play in class alongside viewing a performance by Shakespeare's Globe theatre company, in order to aid their understanding. Lessons will cover the context of the play, so that students understand the conditions and society the play was produced in (i.e., the Jacobean era, patriarchal values, belief in the Divine Right of Kings etc.); the plot so that they understand the storyline; the language used so that they can better understand important ideas and Shakespeare's choices when crafting the play; how to use key quotations so that they can support their interpretation precisely; how Shakespeare has used structural devices so that students can understand how Shakespeare's choices affect meaning, and themes, such as the supernatural and guilt, so that they can understand how complex ideas are interwoven throughout the play. Furthermore, there will be a focus on how to write academically, maintaining a critical style and developing an informed personal response. This is the key difference from writing about Shakespeare in Year 9.

With regard to English Language, students will learn about writers' viewpoints and perspectives. Learning will cover: how to identify and interpret explicit (obvious) and implicit (suggested) information and ideas; how to select and synthesise (create/blend) evidence from different texts; how to explain, comment on and analyse how writers use language and structure to achieve effects and influence readers, using relevant subject terminology to support their views; how to compare writers' ideas and perspectives, as well as how these are conveyed across two or more texts; how to evaluate texts critically and support this with appropriate textual references; how to communicate clearly, effectively and imaginatively, selecting and adapting tone, style and register for different forms, purposes and audiences, and how to organise information and ideas, using structural and grammatical features to support coherence and cohesion.

Maths

This half-term in Year 10 Mathematics students will be studying more advanced concepts in Statistics compared to what they studied last year. Here they will see Frequency Polygons, Pie Charts, Cumulative Frequency Diagrams and Histograms. They will also be able to Construct Line Graphs for time series data and identify trends. Students will also look at key skills involving Algebraic Expressions including Expanding Brackets and Factorising Quadratic Expressions.

Science

Biology

4.3 Infection and Response

Pathogens are microorganisms such as viruses and bacteria that cause infectious diseases in animals and plants. They depend on their host to provide the conditions and nutrients that they need to grow and reproduce. They frequently produce toxins that damage tissues and make us feel ill.

We will explore how we can avoid diseases by reducing contact with them, as well as how the body uses barriers against pathogens. We will also explore vaccinations and antibiotics, and how the race is now on to develop a new set of antibiotics.

Chemistry

5.6 The rate and extent of chemical change

Chemical reactions can occur at vastly different rates. Whilst the reactivity of chemicals is a significant factor in how fast chemical reactions proceed, there are many variables that can be manipulated in order to speed them up or slow them down. Chemical reactions may also be reversible and therefore the effect of different variables needs to be established in order to identify how to maximise the yield of desired product. Understanding energy changes that accompany chemical reactions is important for this process.

5.5 Energy changes

Energy changes are an important part of chemical reactions. The interaction of particles often involves transfers of energy due to the breaking and formation of bonds. Reactions in which energy is released to the surroundings are exothermic reactions, while those that take in thermal energy are endothermic. These interactions between particles can produce heating or cooling effects that are used in a range of everyday applications.

Physics

4.1 Energy

The concept of energy emerged in the 19th century. The idea was used to explain the work output of steam engines and then generalised to understand other heat engines. It also became a key tool for understanding chemical reactions and biological systems. Limits to the use of fossil fuels and global warming are critical problems for this century. Physicists and engineers are working hard to identify ways to reduce our energy usage.

4.3 Particle model of matter

The particle model is widely used to predict the behaviour of solids, liquids and gases and this has many applications in everyday life. It helps us to explain a wide range of observations and engineers use these principles when designing vessels to withstand high pressures and temperatures, such as submarines and spacecraft. It also explains why it is difficult to make a good cup of tea high up a mountain!

4.6 Waves

Wave behaviour is common in both natural and man-made systems. Waves carry energy from one place to another and can also carry information. Designing comfortable and safe structures such as bridges, houses and music performance halls requires an understanding of mechanical waves. Modern technologies such as imaging and communication systems show how we can make the most of electromagnetic waves.

4.2 Electricity

Electric charge is a fundamental property of matter everywhere. Understanding the difference in the microstructure of conductors, semiconductors and insulators makes it possible to design components and build electric circuits. Many circuits are powered with mains electricity, but portable electrical devices must use batteries of some kind. If we all continue to demand more electricity this means building new power stations in every generation – but what mix of power stations can promise a sustainable future?

4.4 Atomic structure

Ionising radiation is hazardous but can be very useful. Although radioactivity was discovered over a century ago, it took many nuclear physicists several decades to understand the structure of atoms, nuclear forces and stability. Early researchers suffered from their exposure to ionising radiation. Rules for radiological protection were first introduced in the 1930s and subsequently improved. Today radioactive materials are widely used in medicine, industry, agriculture and electrical power generation.

Geography

This half-term in Year 10 Geography, students will be studying 'The Challenge of Natural Hazards' with a focus on: plate tectonics (earthquakes and volcanoes), tropical cyclones and climate change. They will find the answers to questions such as 'How do people respond to tectonic and weather disasters?' (E.g. the Nepal Earthquake, 2015, and Typhoon Haiyan, 2013) and 'What evidence is there that our climate is changing? What are the human and natural causes of this change?'

History

In History in Year 10, this half-term students will begin their study of Crime and Punishment 1250 to the present day. Through the theme of Crime and Punishment, up until half term, students will explore features of society between roughly 1250 and 1750. They will examine crimes, punishments and law enforcement and consider the concept of change and continuity. Some of the crimes we will look at include witchcraft, heresy and the Gunpowder Plot and highway robbery.

Spanish

This half-term students in Year 10 Spanish will be studying identity and culture. As well as vocabulary from this theme, students will study grammar points such as key verbs, possessive pronouns and adjectival agreement. They will be expected to review vocabulary at home on a weekly basis. They will also continue to develop their knowledge of Spanish culture in lessons.

German

This half-term students in Year 10 German will be studying school life. As well as vocabulary from this theme, students will study grammar points such as regular and irregular verbs in the present tense and adjectival endings. They will be expected to review vocabulary at home on a weekly basis. They will also continue to develop their knowledge of German culture in lessons.

French

This half-term students in Year 10 French will be studying town, neighbourhood and region. As well as vocabulary from this theme, students will study grammar points such as the three main tenses of regular and irregular verbs. They will be expected to review vocabulary at home on a weekly basis. They will also continue to develop their knowledge of French culture in lessons.

Religious Education

Students have made a great start to their GCSE RE course. They are studying their first theme of the course, Crime and Punishment. Students will be learning about why people commit crime and the different types of crime that can be committed in society. They will learn about different types of punishment that someone may face for committing a crime and the aims of these punishments for the individual and society. Students will also be introduced to some of the essential assessment skills that they will be mastering over the next two years for their final GCSE exams.

Design and Technology

This half-term in Year 10, students will study a range of mass production manufacturing methods, carrying out a design and make task with emphasis on high quality presentation skills, use of 3-D modelling software for Laser cutting application, casting metal in a safe and controlled manner, finishing techniques on metal, and evaluating their own work in written format.

ICT

This half-term in **Digital IT**, Year 10 students will be learning about effective digital learning practices. This is component 3 for the B-Tec Digital IT which is an examined module. We aim to cover Modern Communication Technologies (LO- A1) and the Impact of Modern Communication Technologies (LO-A2) We endeavour to cover the Threats to Data (LO-B1) and prevention of threats to data units (LO-B2).

This half-term in **Computer Science**, the Year 10 students will be learning about Computer Architecture, CPU Performance, Embedded Systems, Primary & Secondary Storage and the different units of data storage from Component 1. From Component 2 the Year 10 students will be learning about the high-level and low-level languages and different translators. Students will be provided with different platforms /resources to practice programming for Component 2. The IT room is open during lunch times for the Computer Scientists

Physical Education

Core PE

This half-term in PE Year 10 students will be taking part in invasion games which may include football and netball. There will also be the opportunity for all students to be a part of the interhouse competition, which this half term is football, taking place on a Friday lunchtime. Extra-curricular activities include the Multigym at lunchtimes or activities of their choice on a Tuesday after school.

Fixtures taking place this half term will include boys' football, girls' football, girls' netball, girls' hockey and cross country.

GCSE PE

This half-term in GCSE PE the Year 10 group will be learning about the body systems, particularly the skeletal and muscular systems, and how they work together to allow us to take part in physical activity. The students will also complete the first part of their coursework which will be a movement analysis of a skill from a sport of their choice.

The second group will be completing a unit of fitness and training, covering the components of fitness, testing fitness, principles of training and training methods. They will also cover a fitness analysis and evaluation for their coursework. Finally, in their practical lessons, both groups will take part in netball or handball.

BTEC Sport

This half-term in BTEC Sport the students are starting with component 1, in which they will cover the types and providers of sport and physical activity, the needs of sports participants and barriers to participation as well as clothing and equipment required for taking part and the use of technology in sport.

Health and Social Care

This half-term in Health and Social Care, Year 10 students will be studying Human Growth and Development across the life stages. They will explore different aspects of growth and development across the 6 life stages using physical, intellectual, emotional and social (PIES) classification. In addition, they will begin to study different types of life events and understand how individuals deal with life events and the impact they can have on PIES development. This will be applied into scenarios and real-life contexts.

Media Studies

Students will start their new Media Studies GCSE course by becoming familiar with the key concepts. This will introduce them to the four key areas of media language (mise en scene, cinematography, sound and editing), representations and conventions. Mainly focusing on how to identify the different techniques and analyse the meaning(s) that have been created for audiences, students will also get the opportunity to apply their learning on more practical level.

Business Studies

This half-term in Business Year 10 students will be introduced to the course and the key assessment requirements, they will start to build up their subject specific terminology and will cover the following topics: The dynamic nature of business, risk vs reward, the role of Business enterprise, Market Research and Market Segmentation.

Art

This half-term students will be introduced to the first of their GCSE projects entitled 'Creep, Crawl, Slither, Fly'. Students will begin by creating a tonal study of a close-up section of the underside of a beetle, sensitively recording the tonal values and applying detail through careful observation. Students will then be introduced to the technique of collage and will use this to represent the colour and tone values of a close crop of a butterfly's wing.

Drama

Year 10 are just starting their GCSE Drama journey. The focus this half term is on trust, teamwork and the art of storytelling on Stage. The focus is on GCSE unit one which is entitled 'Devising Drama'. The end goal is for students to be able to create a piece of performance based on a stimulus provided by the exam board (OCR) and write a coursework portfolio documenting their process.

This half-term is very much the early stages of this; Group work, abstracting ideas from stimulus, the process of devising and lots of team building games.

One lesson a week will also see students start to study their set text; Blood Brothers.