

Knowledge info – terms 3 and 4

English

English Language - students are currently exploring texts regarding 'Conflict' and these have included extracts from novels and plays, poems, letters and speech. They are considering writers' use of language and structure and then using these techniques in their own creative writing.

English Literature - students are either studying 'Blood Brothers' or 'A View From the Bridge' and exploring character and theme. They have the opportunity to explore the social context in which these texts are written and set and consider the writers' intentions and the impact on varying audiences

Maths

Term 3

Students study solving algebraic equations including forming and solving a linear equation, linear 2 step equations, and equations with unknown on both sides; Areas of 2D shapes including compound shapes and learning and applying the formula for the area of a circle; circumference of a circle; Volume and Surface Area of prisms including triangular prism and any other type of prism; apply Pythagoras' Theorem; apply the right-angled trigonometrical ratios and find unknown sides and angles.

Higher sets further study Arc length and Area of a sector; area of a non-right angled triangle; solve linear equations with brackets and/fractions; solve quadratic equations by factorising, completing the square and by the quadratic formula

Term 4

Students study Number properties including sequences of triangular and cube numbers; using prime factorisation and finding LCM/HCF; Angle practice and Constructions including loci, bearings and scale drawings, plans and elevations; Geometrical reasoning problems involving angles on lines, angles in special types of triangles, quadrilaterals, interior and exterior angles of polygons, and angles in parallel lines.

Higher sets further study bearings linked to trigonometry; circle theorems; and circle theorem proofs.

Biology

Term 3

In Term 3 students have been focusing on Human Biology. The emphasis in this term is to explain how the main body systems function such as the digestive system and the circulatory system. Students will have the opportunity to do some dissections in this term, including the heart and the kidney. Once the structure and function of these systems have been covered, students will then move onto common coronary health problems and their associated treatments.

Term 4

Students will move on to the concepts of communicable disease in this term. Students will look at the micro-organisms responsible for disease and how they affect the body. Medicines and vaccinations will be covered and students will have the chance to analyse large data sets to make conclusions. As the weather improves this term will see students turn their attention to plant life, including tissues and organs of plants and the complexities of plant growth.

Chemistry

Term 3 and 4

In Chemistry Year 9 pupils have been learning about the structure and bonding that builds the world around us. They have described and compared the three main types of chemical bonding; ionic, metallic and covalent. Pupils have then progressed to study the structures of the 'giant' structures, such as diamond and graphite. The content studied this term builds upon the basic scientific knowledge of the atom developed in terms 1 and 2, and applies it to a new context.

Physics

Term 3

Students will begin to explore the topic of electricity. Students focus on the idea of charge flow, resistance and potential difference, within circuits, as well as the structure of conducting materials. They will have the opportunity to investigate a variety of components including resistors, filament lamps and diodes. Students will use the data collected within their investigations to develop their mathematical skills with regards to rearranging equations, identifying proportional relationships and calculating the gradient of a graph.

Term 4

Students will continue to study the topic of electricity. However, they will be moving on to investigating semiconductors, such as thermistors and light dependent resistors. Students will analyse the data collected to determine the effect on resistance of varying the temperature and light intensity of a thermistor and light dependent resistor, respectively. Students will then explore mains electricity; covering the structure and function of different parts of the plug as well as learning about the National Grid.

Art – Fine Art

Term 3 and 4

Still Life

Analysing artist artwork

Term 3 and 4 will be spent researching and analysing artists' artwork. The aim is for students to develop an understanding of how artists work, the technique and process use as well as influences. We will specifically be researching the work of Henri Matisse and Paul Cezanne. As students have been studying 'Still Life', both artists were chosen to underpin the theme. They will also complete deep analysis about the artists' work by discussing 'content, form, process and mood'. Once students have gained a secure understanding of how the artists have worked, they be expected to replicate a copy of their work to apply this understanding. Matisse' work will be reproduced using oil pastels whereas Cezanne's work will be reproduced using coloured pencils. Students will be expected to annotate their work to discuss the process and the technique use.

Art - Photography

Term 3 and 4

Collections

During Term 3 and 4, students will be working around the theme of 'Collection'. The aim is for students to gain an understanding of camera position and viewpoint to explore detail and/or abstraction as well as composition. The work of Photographers such as Andreas Gursky, Deanna Dikeman, Jochen Lempert, Marco Ugolini, Marie Bovo and Todd McLellan will be explored to enable students to gain a better understanding of how to replicate or use inspiration from photographers' and apply to their own work. Through working in this way, this will allow students to incorporate, develop and practise the newly acquired skills and understanding.

Business

Term 3

Business finance is covered in the term; Business Costs, Fixed costs, Variable Costs, Total Costs, Cash Flow, Sources of Finance. Skills that are practised include calculating the different types of costs, evaluating the best methods to improve cash flow given a business case, evaluating the best method of finance to use given a business case.

Term 4

The elements of the marketing are covered (Product Price, Place and Promotion). Students obtain skills to analyse and evaluate the best elements of a business integrated marketing mix in a case study.

Computer Science

Term 3

Computer Systems - Students studied the purpose of a CPU, How the Fetch-Decode-Execute cycle works, registers in a computer system, different types of memory and why it's needed– RAM, ROM, Cache, Virtual. Students worked on a virtual computer system to see what happens with data input.

Term 4

Introduction to networks – Students learn how information travels through networks in the form of packets, types of networks required for a large organisation and a small organisation – LANs and WANs. Using cloud computing and the advantages and disadvantages of using this. Students will also learn how WWW is set up.

Dance

Term 3 - Developing Performance Skills through a range of taught phrases. Exploration of stimuli for creative responses in Choreography. Towards the end of this term, students will learn the AQA Set Phrase 'Breathe'. In Theory lessons, they will be introduced to the Dance Anthology for Component 2 Section C. They will watch and analyse 'A Linha Curva'.

Term 4 - Students will explore 'A Linha Curva' through practical workshops and groups tasks. They will further develop their knowledge and skill in choreography with a focus on Spatial design and Choreographic Devices such as repetition, manipulation of number and canon and unison. In theory lessons, we will embed choreography knowledge in relation to Component 2 Written Exam Section A.

Design Technology – Product Design

Term 3

Students have been busy researching, developing, designing and making speakers as part of their skills and knowledge building.

They will have learned about joining, cutting and finishing techniques. Term 3 also saw the introduction of GCSE based theory lessons, taught once a week to enable students to make links between practical and theory. This will help them prepare for their GCSE exam in yr11. The theory covered so far includes New and emerging technology, Demography movement and sustainability.

Term 4

Students will continue to build manufacturing skills & have the opportunity to design & develop a lighting project in the style of the students NEA. Students will also cover more of the theory content, looking at materials and processes.

Design Technology - Textiles

Term 3

Students completed the manufacture of their bunting. This project enabled them to have a taster into a variety of different surface finishing techniques used in fabric products.

Students are now part way through the design & development of their children's clothing. This project has built their knowledge in the development of design ideas, pattern markings, manufacturing techniques such as button holes zips & pockets. Students also have covered the core theory behind fabrics & the importance of development when manufacturing a product.

Term 4

Students will finalise their designs for the children's clothing, manufacture their final pieces. They will then be introduced to a bag project, where they have an opportunity to extend their knowledge into more complex manufacturing & how to create their own working patterns. More theoretical content will be covered with a variety of HW tasks.

Drama

Term 3

Students will gain knowledge of the father of naturalism Konstantin Stanislavski and use his method to develop performances and characters. They will also understand the role of his work in Theatre as a social, cultural and historical art form.

Term 4

Students will create a duologue performance in a naturalistic style from a famous published play text. This module is designed to represent component 2 of the GCSE.

French

Term 3

Theme 1: Identity and culture Topic 2 Technology in everyday life

- Social media & Mobile technology
 - Grammar: verb : permettre de + inf / adverbs of frequency/ negative expressions
- Tenses : consolidation present tense irregular/ perfect tense

Term 4

Theme 1: Identity and culture Topic 3 Free-time Activities

- Music
 - Grammar : consolidation of present tense irregular ; adverbs of frequency & time phrases
- Tenses : perfect tense

Geography

Term 3

Focus on **Weather and climate**. Students have studied atmospheric circulation and how this leads to formation of high and low pressure systems. Students have completed detailed case studies of a tropical storm in Indonesia and drought in USA. They have also looked at the human and physical factors that affect climatic conditions in different locations as well as the understanding of air masses, jet streams and microclimates.

Term 4

Focus on **Ecosystems and People**. Students have revisited the concepts of ecosystems and biomes as well as explored some of the more complex patterns within them such as energy flows, climatic/environmental adaptations, food webs, the nutrient cycle and nutrient stores. We have also looked at some case studies focused on energy and sustainability. The concept of Sustainability will be explored further in the next few lessons as we look into more case studies looking at Tropical Rainforest Management and Desertification in Mesoamerica, Brazil and Africa.

History

Term 3:

During this term in History, students have developed their knowledge of the American West GCSE unit by examining the development of the cattle industry in 19th century America, and by considering the causes and dramatic events of conflict between Native Americans and the US government during the 1860s. Students have also developed their wider historical skills by considering the danger posed to civilians in Britain from war and terrorism during the twentieth century.

Term 4:

During this term in History, students have been studying the causes and consequences of lawless behaviour in the American West, along with attempts by the US government to impose law and order on new settlements and states as they developed. Students have also begun to investigate the tragic course of the final destruction of the Native American way of life. Aside from the American West course, students have been considering the role of Nelson Mandela in ending Apartheid in South Africa.

Hospitality & Catering Level 1/2

Term 3

The hospitality and catering environment and meal planning: Students are completing the Level 1/2 Award in Hospitality and Catering. During this term, students focused on the hospitality and catering industry mandatory units which considered the environment in which hospitality and catering providers operate, the importance of nutrition when planning menus for customers with different dietary needs and reviewed cooking methods and food safety. Students gained an understanding of the different types of establishments and the types of foods produced for customers through theory and practical work.

Term 4

Understand the environment in which hospitality and catering providers operate and knowing how food can cause ill health: Through these mandatory units, students will plan, trial, prepare, cook and serve a three course meal or range of dishes for a target group, or target catering outlet. Students will build on the work completed in previous terms. Students will compare the nutritional needs of specific groups through a variety of tasks. By the end of the unit, students must be able to explain the characteristics of unsatisfactory nutritional intake and the impact of cooking methods as well as plan health meals for different customers.

Media

Term 3

Students study the news industry through analysis of existing examples of print and television news media. They will understand the significance of ownership and political allegiances on information bias, as well as the impact of regulation on industry practise. Students take part in BBC Young Reporter, a nationwide project designed to give young people the journalistic skills required to share their stories. They gain knowledge of finding, gathering, writing, and presenting topical news stories aimed at a specific audience.

Term 4

Students study the film marketing industry through analysis of existing film marketing material. They will understand the codes and conventions of film marketing and how they are used to engage global audiences. Students will apply their knowledge by producing a film trailer, based on genre conventions and aimed at a specific audience. They will gain knowledge of cinematography through the use of video and lighting equipment, and narrative structure through the use of editing software.

Music

Term 3

Introduction to Western Classical Music - Students studied an overview of the Baroque, Classical and Romantic musical eras, including important composers, dates, features of the music and wider context knowledge of what was happening at those times. Students listen to a variety of pieces of music across these dates and study the development of the orchestra, certain instruments within it and development of the purpose of music over this time.

Term 4

Film music project 1 - students learn about the different purposes of music in films, and explore how music can be used to create different atmospheres. Students discover how instrumentation, key, pitch, texture, melody and harmony can be used to enhance audience experience. Students then use this knowledge to create a film underscore and 2 leitmotifs of their own to match music in a short film clip.

Physical Education

Term 3

Topic 1.3 – Health, Fitness and Well Being – Energy Use, Diet, Nutrition and Hydration. Knowledge of what makes a balanced diet, the roles of macronutrients and micronutrients in relation to physical activity, factors that affect weight, variation in weight for different sports and energy balance for weight control and hydration and physical activity.

Topic 2.3 – Sports Psychology – Guidance and Feedback – Knowledge of different forms of guidance along with the advantages and disadvantages to each type and what style suits what performer/sport to optimise a performers skill

and/or performance and different forms of feedback to help optimise a performer's skill and/or performance along with the advantages and disadvantages to each type and what style suits what performer/sport.

Topic 2.4 – Sports Psychology – Mental Preparation – Interpretation and analysis of data. Knowledge of different forms of mental preparation within sporting contexts and individually for different athletes. Knowledge of different mental rehearsal techniques and rituals.

Term 4

Topic 3.1 – Socio- Cultural Influences – Engagement Patterns of different social groups – Knowledge of the impact that gender, age, socio-economic groups, ethnicity, disability and other people's influence have on participation levels within sport. Using comparison graphs and data to analyse.

Topic – 3.2 – Socio-Cultural Influences - Commercialisation – Knowledge of what commercialisation is and how it and the media affect sport. Knowledge of the impact commercialisation has on the sport itself, the athletes involved as well as all others within the sport.

Psychology

Term 3

Social Influence - within this unit students investigate how people's thoughts, feelings and behaviours are influenced by the actual, imagined or implied presence of others. Students have examined the effects of conformity, have questioned why groups of people such as the Nazis blindly obeyed orders of mass murder without hesitation, have investigated what makes an individual more or less likely to offer help to someone indeed through key psychological research as demonstrated in Piliavin's study.

Term 4

Research Methods - a core aspect of Psychology is understanding the principles of psychological research. Within this unit students uncover the steps that researchers take in order to plan, conduct and analyse data from a wide variety of research methods including: experiments, interviews, questionnaires and case studies. The mathematical element involved includes interpretation of data through graphical representation and statistical analysis.

Religious Studies

Term 3

Students studied the unit 'Issues of life and death' which began with Christian and Muslim teachings about the creation of life, as well as considering secular and worldviews. Students then looked at stewardship, the origin and value of human life, ending with beliefs about death and the afterlife.

Term 4

In Term 4, some split classes will continue with the unit 'Issues of Life and Death' and others will study 'Christianity: Beliefs and Teachings'. In this unit students study the beliefs and teachings which form the foundations of the Christian faith: the nature of God, the Trinity and the significance of Christ, ending with a focus on judgement.

Sociology

Term 3

Students are continuing their evaluation of research methods looking at various methods such as interviews, observations and survey and evaluating their effectiveness as part of sociological research. Students have also started their module titled 'Families' and have been analysing the different family forms and the functions of families.

Term 4

Students continue to evaluate research methods, looking at the value of experiments, longitudinal studies and other methods. Students continue to review the ethical issues with such methods. Students have also continued to evaluate 'families' looking at the different sociological perspectives on the role and nature of families.

Term 3

Theme 1: Identity and culture Topic 2 Technology in everyday life

- Social media & Mobile technology
 - Grammar: verb : verbs followed by infinitive / adverbs of frequency/ negative expressions
- Tenses : consolidation present tense irregular/ introduction of participles and the present perfect tense

Term 4

Theme 1: Identity and culture Topic 3 Free-time Activities

- Music
 - Grammar : consolidation of present tense irregular ; adverbs of frequency & time phrases
- Tenses : present perfect tense revision