Curriculum Summary – What are Y10 learning in Autumn 2?

Subject	What are students learning?
Animal Care	Students are being introduced to all the animals in the classroom and on the farm and learning about their general husbandry needs. There is a particular focus on handling these animals and students will complete a significant part of their first piece of controlled assessment.
Biology	Students will continue to work through the Bioenergetics module, including respiration and metabolism, before moving onto the Homeostasis module which starts with work on the nervous system.
BTEC Tech Award Sport	Students are completing PSA 1- This is an external assessment worth 30% of final grade. All materials for this are on Assignments on Teams. 3 tasks will be completed. Task 1 – Increasing participation in regular sport or physical activity for different types of sports participants Task 2 – Equipment and technology required for participants to use when taking part in sport and physical activity. Task 3 – Preparing participants to take part in sport and physical activity
Business	Students will be studying about how an entrepreneur can spot a business opportunity. This will involve looking at understanding customer needs, collecting and using market research and how to identify target customers. They will be developing skills in building analytical paragraphs and using application.
Chemistry	Students are learning about how atoms are bonded together, and how the bonding affects the properties of different substances.
Child Development	Students are exploring growth and development in children. They will be making progress on the first task of their PSA assignment. They will be also exploring the different types of development in children under 5 and how this is measured by using developmental milestones.
Computer Science	Students are continuing to learn how computers store information. This will involve learning how numbers can be stored in binary and hexadecimal, along with how to convert and manipulate binary and hexadecimal numbers. This will give them the requisite knowledge to understand how Characters, Images and Sound can then be stored in digital form and how each can be represented In binary. Finishing this topic with the need for compressing all this data and discussing the advantages and disadvantages of different compression techniques. Follow on from that they will start the next topic which is Networks and Topologies. Here they will study the different Network Topologies, Types and Models along with comparing and contrasting each. Students will also continue their programming practice.

Drama	Students will be continuing their component 1 practical performance twice a week, where they have chosen their own stimulus to create a 15- minute performance on. Once a week we look at exam technique and respond to exam questions on 'An Inspector Calls.
English	The focus in English language and literature this term is on Paper 1. Students are working on their ability to analyse how writers use language and structure to create meaning in fiction. They will also learn how to evaluate texts, adopting a critical voice. Their written communication will also be developed as they learn how to plan and write descriptive and narrative pieces of their own. In literature, pupils are studying 'A Christmas Carol' exploring themes such as poverty, family and redemption. Texts are examined in context and pupils will learn how to write a critical response based on their reading.
Food Preparation and Nutrition	Students will develop an understanding of the principles of nutrition and the importance of fruit and vegetables in a balanced diet. They will explore food miles, food labelling and different farming methods, while developing essential foundation cooking skills through practical food preparation and cooking activities.
GCSE Fine Art	Students will explore key drawing skills in a variety of media for their 'Sea' themed coursework project. The focus is on accuracy of recording and the use of techniques to accurately record form, surface textures and detail. They will work with printing, drawing, clay and card relief construction. These skills develop evidence for AO2 and AO3.
GCSE French	This half term students will focus on the topic of Healthy Living and Lifestyle. They will continue to build a broad base of vocabulary, whilst strengthening their use of opinions, as well as past, present and future tenses. All four skills will be developed, with an emphasis on accurate verbs, and answering open questions.
Geography	Students will learn about the Living World, including rainforest and desert environments. They will develop skills in explaining geographical processes and evaluating different approaches to sustainability in these environments.
Graphics	Students will develop a range of practical design skills, including 3D isometric sketching and 2D graphic design using computer software. They will apply these skills to produce annotated initial packaging concepts for a chocolate packaging project and develop hand-sketched logo ideas. Students will also develop their theoretical knowledge of printing processes, finishing techniques and smart materials, exploring the properties and uses of wood, metal and plastic.
Health & Social Care	Students will develop an understanding of life stages across the lifespan and have started work on their first Pearson Set Assignment (PSA). This involves comparing the stage of adolescence with early adulthood. Students have developed skills in planning and research in preparation for their PSA.

History	Students will study the development of medicine in the period 1900 to the present and the treatment of wounded soldiers in the British Sector of the Western Front, 1914 - 1918. They have developed their ability to write extended answers and evaluate sources.
Mathematics	Higher Tier Students will be studying Calculating with Percentages, Surds, and Constructions and Loci. They will be developing skills in problem solving with real life percentage problem and manipulating irrational expressions. Foundation Tier Students will be studying Standard From, Statistical Measures and Measures. They will be developing skills in analysing data and problem solving.
Music	Students will be developing performance skills, looking at melodic writing, and developing their bandlab skills. Students will also begin to look at their first set works from the Vocal music area of study
Physical Education	Year 10 girls will be developing core skills in netball, including passing, catching, shooting, evasion and footwork. They will apply these in small-sided games, developing their understanding of tactics, rules, fitness, safety and sportsmanship. Y10 boys will be swimming, developing their technique in front crawl, back crawl and breaststroke through teacher-led activities and peer coaching. They will also develop water safety and personal survival skills through the internal Personal Survival Award.
Physics	Students will be developing their understanding of forces and motion, studying Newton's laws, acceleration, terminal velocity and momentum and been practicing their use of the RESCUE format for answering calculation questions. They will apply these ideas to analysing motion, including interpreting motion graphs (distance/time and velocity/time) and investigating collisions.
PSHCE / RE	Students will be completing a short-course GCSE unit on Peace and Conflict, developing their understanding of religious and ethical perspectives on war, peace, violence and reconciliation. They will explore key religious teachings and apply these to contemporary issues and moral dilemmas. Following this, students will begin a series of PSHE lessons focusing on domestic abuse, sexting and consent. They will develop their understanding of healthy relationships, recognising abusive behaviours, the risks and consequences of sharing explicit images, and the importance of consent, respect and personal boundaries.
Resistant Materials	Students will develop their understanding of the design process, learning how to interpret and respond to a design brief through product analysis, consideration of ergonomics and aesthetics, and the creation of inspirational mood boards. They will develop practical design skills through isometric sketching, using annotations and labels to communicate their ideas effectively. Students will also develop their workshop skills, learning about health and safety, the safe use of hand tools and the importance of iterative modelling to refine and improve their designs. Students will build their theoretical knowledge of the properties, uses and forms of metals, plastics and textiles.

Textiles	Students will develop an understanding of fibres and fabrics, exploring the processes, properties and uses of natural and synthetic fabrics. They will investigate different fabric construction methods and evaluate the benefits of various textiles for consumers and the wider textile industry. Students will develop practical construction skills through the creation of a technical folder exploring seams and finishes, alongside the design and construction of a skirt and shorts. They will understand the importance of ergonomics and anthropometric measurements, learn to accurately mark and cut pattern pieces, and develop practical skills in sewing basic seams and inserting zips.
Modelled Reading – Form time.	Students will be reading extracts from a range of texts as part of our modelled reading programme during form time. These include: • On Sledge and Horseback to Outcast Siberian Lepers by Kate Marsden • The Conspirator's Tourist: Travels Through a Strange World by Dom Joly • The First Men on the Moon by Neil Armstrong and Buzz Aldrin • The Cruelest Journey by Kira Salak • Mary Seacole's Autobiography by Mary Seacole • Some Desperate Glory: The World War I Diary of a British Officer by Edwin Campion Vaughan • Touching the Void by Joe Simpson and Simon Yates