



Birch Wood Vale School  
**Year 10**  
 Autumn Term 2020  
 Curriculum Information



Science	
Health and disease	What health is. The different causes of ill health
Pathogens and disease	What pathogens are, how they cause disease, how pathogens spread disease
Preventing infection	How the spread of disease can be reduced or prevented
Introduction to electrolysis Changes at the electrodes The extraction of aluminium Electrolysis of aqueous solutions	What happens in electrolysis and the products of electrolysis What happens to ions during electrolysis Why some metals are extracted with carbon and others by electrolysis How to predict the products of the electrolysis of an aqueous solution
Alternating current Electrical power and potential difference	What direct current is and what alternating current is What is meant by a live wire and the neutral wire of a mains circuit How power and energy are related
Electrical currents and energy transfer	How the energy transferred by a flow of electrical charge is related to potential difference
Vaccination	How your immune system works. How vaccination protects you against disease
Antibiotics and painkillers	What medicines are and how some of them work
Discovering drugs	Some drugs are traditionally extracted from plants. How penicillin was discovered
Non-communicable diseases	What is meant by a non-communicable disease. What a lifestyle factor is
Smoking and the risk of disease	How smoking affects the risk of developing cardiovascular disease How smoking affects the risk of developing lung cancer
Diet, exercise and disease	The effect of diet and exercise on the development of obesity That obesity is a risk factor for type 2 diabetes
Alcohol and other carcinogens	That alcohol affects liver and brain function. That many other agents act as carcinogens
Exothermic and endothermic reactions	Energy cannot be created or destroyed in a chemical reaction. What is meant by the rate of a chemical reaction

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Rates of reaction		How to calculate the mean rate of a reaction
Effect of temperature		How increasing the temperature affects the rate of reaction
Effect of catalysis		What a catalyst is and why catalysts are important in industry
ART	Workshops Portfolio work	Year 10 GCSE art will begin with a series of workshops in the first instance, exploring various art materials and techniques, such as colour mixing; mark making and an introduction to working with mixed media. They will then begin their Component 1 Portfolio work in the first half term, responding to the starting point 'human form'. This project will look at portraiture initially and will encourage the students to study the work of portrait artists such as: Takahiro Kimura and Guy Denning.
DT	Board Games	Learners will research design and make a board game that incorporates elements of a chosen design movement.
Construction	Health, Safety and Welfare	Learners will be working through the unit 10 be exploring different areas of construction Health, safety and welfare issues
Home Cooking Skills Level 1	Introduction, food and kitchen safety. Breakfast and Eggs	Main focus this term is introducing the course and the importance of health and safety in the kitchen. Moving on to sourcing and cooking eggs, developing this further into different types of breakfasts.
Sport & Active Leisure	<u>Unit 16 :</u> Working as a team	This unit looks at how learners can be effective members of a team. Learners will identify the skills, roles and responsibilities needed to complete the team task and match their skills accordingly; will take part in team tasks and review their contribution.
Moving Together	Dance Theory and Practical	Students will be exploring the arts industry, specifically through dance. The students will be working at varying levels theoretically, and will be challenged practically to develop technique, style, performance, collaboration, creativity, leadership and confidence. Theoretical and practical elements will complement each other, encouraging a deeper understanding of dance and creative opportunities.
Computing	E-safety	Students will be focusing on how to stay safe when online. They will be looking at different social media sites and developing knowledge on the importance of keeping information private and being safe. Students will also be looking into how the Internet has its advantages and disadvantages.
	Networking	Students will be studying how computers are made and connected to each other. Students will learn how networks connect nodes like computers, routers, and switches using cables, fibre optics, or wireless signals. We will also be looking at how these connections allow devices in a network to communicate and share information and resources.

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PE	<u>Net Games</u>	Students are playing tennis this half term with Melton Tennis club coaches, on the tennis courts, learning the skills and rules of tennis. Students will develop skills such as bat and ball control, sportsmanship and teamwork. The unit will also provide students opportunities to take further roles as leaders, coaches and officials.
	<u>Health related fitness</u>	Students will be learning about various components of fitness through experiencing different methods of training and exercise. Students will also be learning about and undergoing fitness testing.
RE	Christianity Beliefs	Students will learn the key concepts and key beliefs within Christianity and the foundations of the religion. They will learn key words and develop an understanding of how beliefs influence Christians in the modern world, with the aim being that they can develop a sense of understanding about the benefits and problems that religious beliefs have in relation to a range of ethical and philosophical dilemmas. They will look at the concepts of evil and suffering, the nature of God, beliefs about creation and the origins of the religion by looking at the life and key teachings of Jesus.
PSHE	Relationships	Students will learn to understand their emotions and feelings, and begin to process the experiences they have had. They will rebuild relationships and re-learn how to interact positively with others. Young people will be supported to engage with self-regulation strategies, which will help them to feel safe and calm.
	Community	Students will learn to understand the world we are now living in and to equip them with tools and strategies to help them process what is different and what we can do to help. To re-learn the routines and structures of the school community.
	Learning to Learn	Students will be given the opportunity to rebuild and re-skill themselves as learners in order to regain their confidence in learning.
	Well-being	We will support our students to explore their feelings, emotions and sense of well-being. This will enable them to acknowledge, accept and feel secure and positive in the world we now live in.

Useful websites: [BBC Bitesize KS4 / GCSE](#)

We are pleased to help you with any questions you may have about your child.