KS5 Design & Technology Curriculum Map 2022-23

		Autumn term	Spring term	Summer term

Year 12	Theory topics	• MATERIALS:
		  ○ Woods
		  ○ Composites
		  ○ Polymers
		  ○ Papers and boards
		• PROCESSES, TECHNIQUES AND SPECIALIST TOOLS:
		  ○ 3D Drawing methods
		  ○ Printing
		  ○ Lamination
		  ○ Jointing
		• DIGITAL TECHNOLOGIES:
		  ○ Computer-aided manufacture (CAM) and rapid prototyping
			• FACTORS INFLUENCING THE DEVELOPMENT OF PRODUCTS:
			  ○ User needs, wants and values
			  ○ Principles, applications and the influence on design of anthropometrics and ergonomics
			  ○ Form over function and form follows function
			  ○ Design theory of historical movements and figures including Art Nouveau
			• THE EFFECTS OF TECHNOLOGICAL DEVELOPMENTS:
			  ○ The global marketplace, manufacturing 'offshore' in developing countries and local and global production
			• THE FEATURES OF MANUFACTURING INDUSTRIES:
			  ○ Quality Control & Quality Assurance
			  ○ Robotics in production
			  ○ Material handling systems
				• INFORMATION HANDLING, MODELLING AND FORWARD PLANNING
				  ○ The importance, implications and ways of protecting the intellectual property rights of designers, inventors and companies including copyrights
				• FURTHER PROCESSES AND TECHNIQUES:
				  ○ Circular Economy – biologically-based systems; understanding how waste and pollution can be eliminated

	Project work	*Designers furniture* (including investigation, designing, modelling, CAD/CAM)	*Coursework* (Component 2)	
Year 13	Theory topics	• MATERIALS • PERFORMANCE CHARACTERISTICS OF MATERIALS • PROCESSES, TECHNIQUES AND SPECIALIST TOOLS • DIGITAL TECHNOLOGIES • FACTORS INFLUENCING THE DEVELOPMENT OF PRODUCTS • THE EFFECTS OF TECHNOLOGICAL DEVELOPMENTS	• SAFE WORKING PRACTICES, POTENTIAL HAZARDS AND RISK ASSESSMENT • FEATURES OF MANUFACTURING INDUSTRIES • DESIGNING FOR MAINTENANCE AND THE CLEANER ENVIRONMENT • CURRENT LEGISLATION • INFORMATION HANDLING, MODELLING AND FORWARD PLANNING • FURTHER PROCESSES AND TECHNIQUES	Exam revision
	Project work	*Coursework* (Component 2)	Exam revision	