

KS5

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	Mini Coursework project. Sketching and 3D CAD skills are required to design and manufacture a working Bike light. 3D printing and block modelling skills are developed throughout.			Coursework project begins. Identifying a problem and client	Assessment Objective 1 Investigation. <ul style="list-style-type: none">Design BriefResearchSpecification	Assessment Objective 2 Design ideas. <ul style="list-style-type: none">Design ideasFurther researchreview
		Materials. <ul style="list-style-type: none">1. Woods2. Metals3. Polymers4. composites	1.2 Performance characteristics of materials. 1.3 Material properties	3.1-3.4 Processing and Joining techniques of materials	PPE Prep Exam questions and Model answers 5.3 The influence of aesthetics, ergonomics	5 Factors influencing the development of products
Year 13	Assessment Objective 2 Development. <ul style="list-style-type: none">Design ideas.DevelopmentReviewFinal idea	Assessment Objective 3 Practical. Manufacturing of major project. <ul style="list-style-type: none">Plan of makeAssembly logsdevelopments		Assessment Objective 4 Evaluation. Evaluation and Testing	Final exam prep Exam Question and Techniques.	
	PPE Prep Exam questions and Model answers	Methods of production One-off production Batch production High-volume production	Production scheduling and production logistics Robotics in production Materials handling systems Flexible manufacturing systems IFMSI. modular/cell production systems Lean manufacturing using just-in-time Jit systems Standardised parts, bought-in components Quick response manufacturing [QRMI] Data integration Concurrent manufacturing			