



Design Technology Department Curriculum and Assessment Map

N.B. Unit taught on rotation

Year 8	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Unit – Sustainable Architecture	Communicating ideas Drawing methods	Structures Energy Sources	Design task analysis Design ideas	Design development Prototyping	Modelling techniques Practical making	Practical making	Practical making	Product Evaluation RMDE Assessment
Fundamental Knowledge	Understand that drawing and visual communication are used to: - Explore ideas - Record thinking - Communicate design intent to others - Refine ideas - Support making, evaluation and iteration Progress through informal to formal drawings Freehand Annotated sketches Technical drawing such as - Isometric / Orthographic	Understand that structures support loads and resist forces. Provide stability and safety Enable products, buildings and systems to function effectively That there is a balance between strength, weight, material, cost, sustainability and aesthetics. Understand that energy sources power products and processes Influence design decisions	To be able to identify key criteria and features of the task through research Recognise and consider user wants and needs Develop specifications that addresses the task / problem Understand that design ideas are a creativity response to a design problem Enable exploration of possible solutions	To develop iteration skills To develop ability to identify potential improvements through critical evaluation To develop design proposals that include a wider range of requirements, such as environmental, aesthetic, cost, quality and safety Understand that prototyping is used to model and sample ideas That prototyping is used to test and explore and improve	Produce 3D models to develop and communicate ideas Follow an iterative designing process. Prototyping – test and refining design Follow H & S rules of the workshop and adhere to workshop routines Demonstrate understanding of Health and Safety when using the craft knives and glue gun for example	Follow H & S rules of the workshop and adhere to workshop routines Demonstrating understanding of Health and Safety when using craft knives and glue gun for example Select from and use materials, tools and equipment appropriately Select from and use techniques, processes with accuracy and precision	Follow H & S rules of the workshop and adhere to workshop routines Understand H & S when using craft knives and glue gun for example Select and use materials, tools, equipment appropriately Work with accuracy and precision Test and refine ideas against a specification considering and the views of others	Select appropriate methods to evaluate their products in use and modify them to improve performance Produce short reports, making suggestions for improvements

		Affect the environment		ideas before the final product is made				
Learning Checkpoint Tasks			LC1 – Drawing methods Structures Energy sources		LC2 – Self assessment and DIRT	LC3 – Identify safe working practices		RMDE - End of unit assessment
Common Assessment Task	Correctly demonstrate 3-dimensional drawing techniques Common misconception – not aligning drawing to isometric grid	Identification of structure types To know what a design brief is. Analysis of Design task	Creative ideas proposed. Production of multiple annotated sketches Avoiding design fixation		Competency in practical making / Assess practical skills Complete a product using hand and machine tools Evaluate / modify approach as work progresses - competency, accuracy, safety and craftsmanship.			Test performance. Get user feedback. Evaluate success against the design brief and specification Demonstrate critical reflection and propose modifications
Interleaved Knowledge	Be able to understand and demonstrate drawing methods. Ability to identify suitable design communication ideas.		To understand sustainability in conjunction with energy sources and generation. To recognise different use needs.		Working properties of materials. Structural / construction understanding. Aesthetics and functionality. Ergonomics and anthropometrics. Process constraints.			