



Year 8 Design Technology – Product Design Curriculum Map

Overview	12 week carousel, 2 x workshop based projects as well as 2 x Homework projects. Key Product Design theory is introduced and taught within allocated workshop time alongside practical projects. Homework projects allow an extension to learning linked to key design knowledge.	
Year 8	First Half of Term	Second Half of Term
Topic	Passive Amplifier Project	CAD/CAM Project
Knowledge	Target market Clients needs Design brief Iterative process Modelling Design specification Orthographic drawing Smart materials Modern materials Energy Homework project - Design Inspirations	Computer aided design Computer aided manufacture 2D Design Laser cutter Properties of Plywood and Acrylic Metal materials Fibres Gears and Pulleys Homework project - Iterative design - Wind Power
Skills	Classroom based skills: Analysis of Passive amplification Product Analysis/Research of existing products Identify constraints Testing and trialling design specification (ACCESSFM) Initial ideas - Isometric drawings Working with MDF Evaluating Safe use of workshop equipment and hand tools Homework based skills: Research Design Movements Nature inspiring design (Biomimicry) Sketching natural forms	Classroom based skills: Analysis of existing designs Initial ideas - their own basic specification written incorporating ACCESSFM. Developing the final idea 2D Design (CAD) Making using CAM Laser Cutter Materials - Plywood and Acrylic Evaluating Homework based skills: Investigating Wind Power Research into Aerodynamic Lift Product analysis (ACCESSFM) Redesign a product

	Biomimicry design ideas Modelling skills Evaluate design movements	Iterative design practical task
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