

Subject: L2 Engineering Design

Curriculum Intent Document: 2026-2027

	Year 10 L2 Engineering Design 2026	Year 11 L2 Engineering Design 2027
Autumn 1	<p>Course introduction</p> <p>Rechargeable torch: Project introduction -How do we work from a design brief?</p> <p>Researching the topic: -How do we carry out research? -How do we analyse and compare products?</p> <p>Generating ideas: -How do we present ideas?</p> <p>Development of ideas: -What is CAD/CAM? -How do we use the 2D Design software? R038: Using 2D Computer Aided Design</p>	<p>Gadget tidy project: Project introduction R038: Exploring design criteria -What is our design brief? -How do we work from a design specification? R038: Exploring design strategies</p> <p>Generating ideas: -What are the freehand sketching techniques? -How do we present our ideas?</p> <p>Modelling of ideas: R038: Exploring Modelling methods -How do we model and test our gadget tidy?</p> <p>Development of ideas: -How do we present our chosen idea?</p>
Autumn 2	<p>Torch casing manufacture -How do we manufacture our torch casing and circuit? -How do we use the Solidworks software? -How do we draw parts? -How can we create an assembly of parts? R038: Using 3D Computer Aided Design</p>	<p>Product manufacture -How do we use engineering modelling and making techniques?</p> <p>Product testing and evaluation R038: Evaluating design outcomes -How do we test and evaluate our ideas?</p>
Spring 1	<p>Torch assembly -How do we construct our torch circuit?</p> <p>Production diary -What are the stages of making? -How do we present our making diary? -Which materials, tools and equipment did we use? R040 Coursework begins R040 Task 1: Product analysis</p>	<p>R039 Coursework begins R039 Task 1: Manual production of freehand sketches R039 Task 2: Manual production of freehand sketches development of ideas R038: Exploring the influences on engineering</p>

	R040 Task 2: Product disassembly	
Spring 2	R040 Task 3: Virtual CAD 3D R040 Task 4: Physical modelling-production planning R040 Task 5: Physical modelling-prototype production	R038: Exploring manufacturing considerations R039 Task 3: Production of engineering drawings R039 Task 4: Use of Computer Aided Design (CAD) R039 Coursework deadline R038: Exam preparation
Summer 1	R040 Task 6: Physical modelling-evaluation of prototype R040 Coursework deadline R038: Exploring engineering drawing techniques -What are the engineering drawing techniques? -What are the 3D drawing techniques oblique and isometric?	R038: Exam preparation R038: Final exam
Summer 2	R038: Presenting working drawings -How do we present working drawings? -What is an Orthographic Drawing?	