Subject: L2 Engineering Design

Curriculum Intent Document: 2025-2026

	Year 10 **L2 Engineering Design 2025**	Year 11 **L2 Engineering Design 2026**
Autumn 1	**Course introduction** **Cube calendar design project** **R038: Exploring engineering drawing techniques** -What are the engineering drawing techniques? -What are the 3D drawing techniques oblique and isometric? **R038: Presenting working drawings** -How do we present working drawings? -What is an Orthographic Drawing?	**Torch casing manufacture** -How do we manufacture our torch casing and circuit? **R038: Using 3D Computer Aided Design** **Torch assembly** -How do we construct our torch circuit? **R038: Exploring Modelling methods** **R038: Exploring manufacturing considerations**
Autumn 2	**R038: Using 3D Computer Aided Design** -How do we use the Solidworks software? -How do we draw parts? -How can we create an assembly of parts?	**Production diary** -What are the stages of making? -How do we present our making diary? -Which materials, tools and equipment did we use? **R038: Evaluating design outcomes** **R038: Exploring the influences on engineering** **R040 Coursework begins** **R040 Task 1:** Product analysis
Spring 1	**R039 Coursework begins** **R039 Task 1:** Manual production of freehand sketches **R039 Task 2:** Manual production of freehand sketches development of ideas	**R040 Task 2:** Product disassembly **R040 Task 3:** Virtual CAD 3D **R040 Task 4:** Physical modelling-production planning
Spring 2	**R039 Task 3:** Production of engineering drawings **R039 Task 4:** Use of Computer Aided Design (CAD) **R039 Coursework deadline**	**R040 Task 5:** Physical modelling-prototype production **R040 Task 6:** Physical modelling-evaluation of prototype **R040 Coursework deadline** **R038: Exam preparation**

Summer 1	**Rechargeable torch: Project introduction** -How do we work from a design brief? **R038: Exploring design criteria** **Researching the topic:** -How do we carry out research? -How do we analyse and compare products?	**R038: Exam preparation** **R038: Final exam**
Summer 2	**Generating ideas:** -How do we present ideas? **R038: Exploring design strategies** **Development of ideas:** -What is CAD/CAM? -How do we use the 2D Design software? **R038: Using 2D Computer Aided Design**	