



Design and Technology



Archdiocese of Liverpool

Curriculum intent:

In Year 11 pupils work through their chosen NEA project. Pupils continue to use creativity and imagination to design and manufacture a working prototype that solves a real and relevant problem that considers social, moral and cultural values. Pupils will continue to develop a deep knowledge and understanding of all aspects of Design Technology in preparation for their end of year examination.

Year 11

	Content	Concepts and Skills
TERM 1	GCSE-NEA 3.1 Core technical principles <ul style="list-style-type: none">• Systems approach to designing 3.3 Designing and making principles <ul style="list-style-type: none">• Investigation, primary and secondary data• Environmental, social and economic challenge• The work of others• Design strategies• 3.3.5 Communication of design ideas	Designing & Analysing Generation and development of design ideas. Product analysis Client profiling Literacy: TMG questionnaire and analysis Maths: pie charts
TERM 2	GCSE-NEA 3.2 Specialist technical principles <ul style="list-style-type: none">• Selection of materials or components 3.3 Designing and making principles <ul style="list-style-type: none">• Prototype development• Selection of materials and components• Tolerances• Specialist tools and equipment• Specialist techniques and processes	Prototyping & Manufacturing Rapid prototyping Scales of production: One off, batch & Mass production CAD/CAM Developing practical skills
TERM 3	GCSE-Exam prep 3.1 Core technical principles <ul style="list-style-type: none">• New and emerging technologies• Energy generation and storage• Developments in new materials• Material categories• Material properties 3.2 Specialist technical principles <ul style="list-style-type: none">• Scales of production• Specialist techniques and processes	Smart, new and traditional materials. CAD/CAM. Industrial process and scales of production. Environmental issues and carbon footprint. Structures and forces. Client, user and target market. Product analysis

