



Design and Technology



Archdiocese of Liverpool

Curriculum intent:

In Year 10 pupils develop their depth of knowledge and understanding by working through a range of mini NEA projects. Pupils use creativity and imagination to design and manufacture products and prototypes that solve real and relevant problems that consider social, moral and cultural values, forming cross-curricular links, pupils draw on disciplines such as Mathematics, Science, and Computing. Pupils use a range of media in order develop their own design style.

Year 10

TERM 1

Content

Tools Box Project

3.1 Core technical principles

- Materials and their working properties
- Material categories
- Material properties

3.2 Specialist technical principles

- Sources and origins
- Using and working with materials
- Stock forms, types and sizes

Concepts and Skills

- User needs and Design Context
- Past and present professionals
- Responsibilities and designers in the wider community
- Design Strategies and communicating ideas
- Levers and Mechanisms
- Electronics
- Materials, Sources and Properties
- Making Techniques

TERM 2

Bottle Opener

3.1 Core technical principles

- Material categories
- Material properties

3.2 Specialist technical principles

- Forces and stresses
- Specialist techniques and processes

3.3 Designing and making principles

- Tolerances

- User needs and Design Context
- Past and present professionals
- Responsibilities and designers in the wider community
- Design Strategies and communicating ideas
- Levers and Mechanisms
- Electronics
- Materials, Sources and Properties
- Making Techniques

TERM 3

CAD GCSE-NEA (Exam Prep)

3.1 Core technical principles

- New and emerging technologies
- Energy generation and storage
- Developments in new materials

3.2 Specialist technical principles

- Ecological and social footprint
- 3.2.4 Sources and origins

3.3 Designing and making principles

- Environmental, social and economic challenge

- User needs and Design Context
- Past and present professionals
- Responsibilities and designers in the wider community
- Design Strategies and communicating ideas
- Levers and Mechanisms
- Electronics
- Materials, Sources and Properties
- Making Techniques

