# Design and Technology



## 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

#### **GCSE-NEA**

- 3.1 Core technical principles
  - Systems approach to designing
- 3.3 Designing and making principles
  - Investigation, primary and secondary data
  - Environmental, social and economic challenge
  - The work of others
  - Design strategies
  - 3.3.5 Communication of design ideas

#### **GCSE-NEA**

- 3.2 Specialist technical principles
  - Selection of materials or components
- 3.3 Designing and making principles
  - Prototype development
  - Selection of materials and components
  - Tolerances
  - Specialist tools and equipment
  - Specialist techniques and processes

#### **GCSE-Exam prep**

- 3.1 Core technical principles
  - New and emerging technologies
  - Energy generation and storage
  - Developments in new materials
  - Material categories
  - Material properties
- 3.2 Specialist technical principles
  - Scales of production
  - Specialist techniques and processes

### 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
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- Making Techniques



