

# GCSE Engineering

GCSE Engineering requires students to develop subject knowledge, skills and understanding that allow them to solve engineering problems in an informed way. The use of new technologies, materials and processes in addition to established engineering practices are learned and students are to put theory into practice, solving engineering problems through the application of mathematical principles and computer modelling/simulation to produce carefully considered manufactured outcomes which showcase essential practical skills.

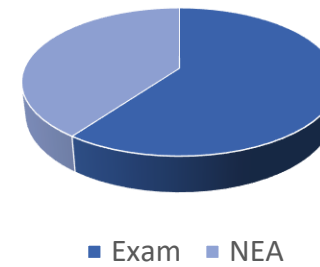
## The difference between D&T and Engineering:

- Engineering focuses in more detail on the manufacturing aspect of Technology
- There is also a greater reliance on CAD (Computer Aided Design)
- Slight differences in NEA and examination split
- More mathematical content within Engineering

## Subject Content:

- 3.1 Engineering materials
- 3.2 Engineering manufacturing processes
- 3.3 Systems
- 3.4 Testing and investigation
- 3.5 The impact of modern technologies
- 3.6 Practical engineering skills

GCSE Assessment weighting



## Component 1: 60% of GCSE

Written **Exam** : 2 hours (120 marks).

- Multiple choice questions assessing breadth of knowledge.
- Short answer questions assessing in depth knowledge, including calculations.
- Multiple choice questions related to the application of practical engineering skills.
- Extended response questions drawing together elements of the specification.

## Component 2: 40% of GCSE

**NEA** : 40 hours (80 marks)

- Context is released 01<sup>st</sup> June to year 10 students
- Engineered drawings or schematics to communicate a solution to the prescribed brief
- The production of a product that solves a problem