

## Engineering

**Note: This course is not currently taught in Foyle, but may be available in another school.**

### **Why should I study Engineering?**

STEM subjects (Science, Technology, Engineering and Mathematics) offer a lot of career opportunities for both boys and girls. This course allows you to work closely with local engineering firms and to learn more about the job opportunities in the local area. In Northern Ireland, there are a number of large multinational engineering companies who find it difficult to attract suitably qualified local people and often have to recruit employees from other countries. These companies include international firms like Invista and Seagate, as well as local businesses such as E&I Engineering and Allpipe, all of whom provide a large number of job opportunities for people with the correct skills and qualifications.

### **Content**

A-level Engineering consists of six units:

#### **AS Year 13**

- Materials, Processes and Techniques (Examination)
- The Role of the Engineer (Portfolio based on Invista)
- Principles of Design, Planning and Prototyping (Design and Manufacturing Portfolio)

#### **A2 Year 14**

- Applied Engineering Systems (Controlled Assessment)
- The Engineering Environment (Portfolio based on Allpipe Engineering)
- Applied Design, Planning and Prototyping (Design and Manufacturing Portfolio)

**Coursework**

Coursework will contribute nearly 70% of the grade achieved. In both years, pupils will undertake case studies of two different local engineering companies. Units 3 and 6 also allow pupils to design and manufacture a product of their own choice, determined by their own interests.

**Careers**

Typical career opportunities can be found in the many different engineering disciplines (civil, electrical, electronic, etc) and also advertising, animation, architecture, computer programming, design (fashion, furniture, graphic, interior, etc), marketing, planning, robotics, teaching, traditional trades, and many more.

**Progression**

As well as traditional degree courses, pupils can opt to undertake vocational or apprenticeship training, where they will be paid from the first day of training. More information is available from the Engineering Training Council Northern Ireland at the web address below.

<http://www.etcni.org.uk/>