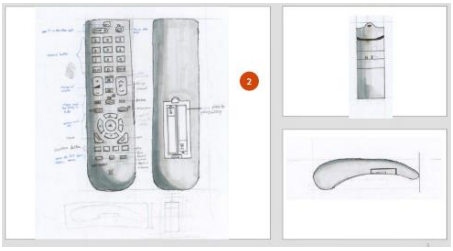
Ormiston Sir Stanley Matthews Academy

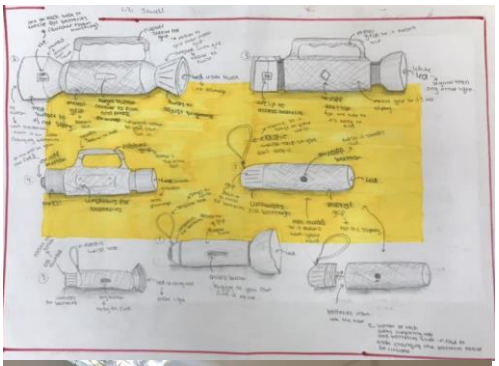
OCR Cambridge National in Engineering Design

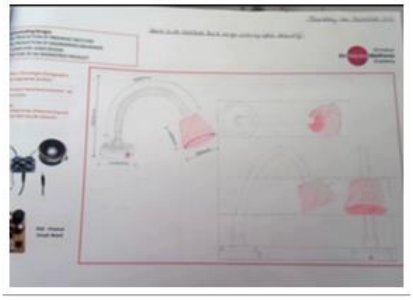
What is OCR Cambridge National in Engineering Design?

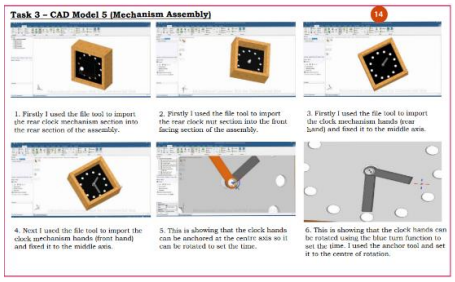
OCR Cambridge National in Engineering Design is an exciting introduction to a rapidly growing and evolving employment sector. Engineering is a key component of the STEM faculty, and research suggests there will be more job opportunities in this field than in any other by 2030.

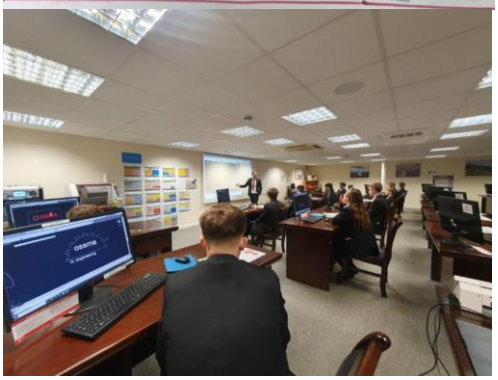
Our course focuses on **engaging, hands-on coursework projects** completed in lessons alongside a written examination. It blends both theoretical and practical elements, equipping students with a broad range of skills. We collaborate with a variety of companies to enhance our curriculum through **educational visits, industry trips, mentoring opportunities, and extracurricular competitions**.

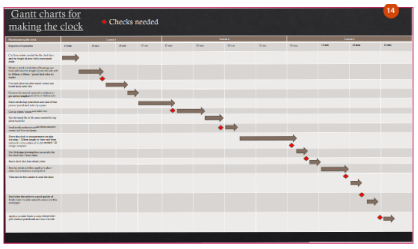












What skills will I develop?

Learners will develop a broad range of skills that are directly linked to the **engineering design process**, including:

- Researching market information to understand existing products.
- Generating **innovative and problem-solving design ideas**.
- Applying practical skills in **prototyping, manufacturing, and evaluating designs**.

Engineering has strong connections with other STEM subjects and **local industry experts**. We currently partner with several engineering firms across different sectors to ensure students gain real-world insight into how their classroom work translates into industry.

How will I be assessed?

OCR Cambridge National in Engineering Design is a **Level 2 qualification**, equivalent to one GCSE. It consists of three components assessed by OCR:

- **Component 1 – Principles of Engineering Design** *(Externally assessed – 40%)*
- **Component 2 – Communicating Designs** *(Internally assessed – 30%)*
- **Component 3 – Design Evaluation and Modelling** *(Internally assessed – 30%)*

Assessment is a combination of **internally marked coursework and an externally marked examination**.

How can I support my studies at home?

To excel in this course, students should develop a **working knowledge of the design process** and explore the different sectors of engineering. Since engineering offers **hundreds of career pathways**, researching potential sectors such as **automotive, mechanical, or structural engineering** will provide valuable insight into future opportunities.

What can I do after completing this course?

Engineering is a **gateway to an exciting and varied career** with countless opportunities. This qualification can lead to further education, including:

- **College courses (both applied and academic)**
- **Engineering apprenticeships**
- **Careers in cutting-edge industries**, such as:
    - **Automotive engineering** – designing the **green vehicles of the future**.
    - **Mechanical engineering** – developing **innovative solutions** to improve everyday life.
    - **Structural engineering** – shaping the homes and cities of tomorrow.

Engineering is a dynamic and ever-growing industry. Our course will help **open doors to an exciting, fulfilling, and rewarding career path**.