

BTEC ENGINEERING



Formby High School's experience of delivering BTEC Engineering remotely

School:



Formby High School

OFSTED



Outstanding

Location:



Formby, Liverpool

BTEC Cohort:



100+

Background

Formby High School is a mixed 11-18 academy in Formby, Liverpool. Deby Wareing, Subject Leader for Design Thinking and Engineering, has been teaching the BTEC Level 1/2 Tech Award and Level 3 National in Engineering since 2016 and 2017 respectively. Since the introduction of BTEC Engineering at Formby High School, Deby believes it has offered her students a **viable career pathway and a wealth of transferable skills**. Whilst teaching in the current climate has been challenging, Deby has been adapting her teaching to support remote learning, by using creative examples to engage learners.

Providing a unique experience

At Formby High School we have been **redesigning our KS3 to reflect the KS4 and KS5 engineering route**, by switching from design and technology to engineering. We have altered the Year 8 curriculum to include a complete CAD unit in preparation for KS4 and Year 9 now opt for a discovery year in Engineering, a taster of the Level 1/2 qualification.

“Engineering has become an extremely oversubscribed qualification at our school. ”



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The most exciting project we have undertaken is the introduction of Fusion 360. This brand-new piece of software, that the Level 3 students are embracing, has led to university places and interviews successes for apprenticeships places. We aim to introduce the software at Level 1/2, which will increase the level of skill and experience of the software by the time they reach Level 3.

Our students also take part in the Jaguar Landrover 4x4 competition, which works perfectly alongside this qualification. Unfortunately, due to COVID we had to put this on hold, but we aim to start again soon.

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I love the variety of topics covered in the BTEC Engineering qualifications, from learning CAD to researching the engineering industry. **The skills and assessments methods required are diverse** and challenging, keeping our students engaged. I would recommend teaching BTEC Engineering as it **gives teachers the ability to track and monitor progress, in the current educational environment this has been invaluable.**

The structure of the BTEC works well for our students, as they understand their progress. The exam allows our students to think logically and with the added re-sit opportunity provides an important safety net.

“Engineering is vital, the course truly allows students to follow a viable career pathway.”

Teaching a practical qualification remotely

When we returned to school in September 2020, I was able to **redesign my assessment plan to focus purely on practical work**, which was successful. Accessing CAD software was difficult, however, teaching Component 3 of the Level 1/2 and Unit 3 of the Level 3 worked well for remote learning. The structure of the questions enabled me to **generate lots of examples that students can work on from home**, such as paper aeroplanes.

With live input from myself via Microsoft Teams, students could develop their answers further and receive feedback on their progress.

One standout lesson with my Level 1/2 comes to mind. I found easy to access, engineered products, and used these to adapt our engineering briefs. I then created a structure, breaking down the problem ensuring I covered all the assessment criteria. I was able to repeat this lesson, adapt the product until the students understood how to answer the questions well.

My top three tips for other teachers teaching remotely are...

- Focus on what you can do and do not worry about what you have no control over – there is enough content and style of work to enable remote learning.
- Communicate and share your concerns.
- Students will always be able to draw and design!



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Preparing students for the future

The range of skills developed on the BTEC are diverse and **relevant to the current engineering career market**. Teaching the Unit 10 CAD task at Level 3 has made a real difference to the **success of my students in applying for university placements and apprenticeships**. CAD is the future! Using up to date and complex software such as Fusion 360 is impressive and recognized by universities and employers. The successes of our students make me proud - **our results have dramatically improved, and students have found a real interest in engineering**.

“Our students have followed the engineering career pathway, going on to study at university or completing apprenticeships.”

Find out more about teaching
BTEC Engineering