

A LEVEL DESIGN AND TECHNOLOGY FAQs

Q: Why is the course at Fernwood School when I am going to Bilborough?

We have taught Design and Technology on behalf of Bilborough for nearly 10 years. As a school we have won several awards for our Design and Technology department, and have excellent facilities.

Q: How do I get to Fernwood?

Bilborough provide a link bus which will take you to and from all lessons at Fernwood, meaning no time will be lost from your other subjects. We let classes leave shortly before the bus is due to leave Fernwood to ensure you can get back on time. When the course begins in September we will also provide you with a detailed map on how to get here by public transport or on foot; we are only a short walk away!

Q: I love graphics, do I have to do anything else?

Yes! In year 12 we will cover all areas of Design and Technology through projects, theory classes and practical tasks. This ensures that all students have the practical skills they need to make a product for their NEA (Non-Examined Assessment) and are able to give detailed and accurate responses in their exam.

Q: What software do you use/teach?

We use industry standard software including SolidWorks and Adobe Suite (InDesign, Photoshop etc.). We also use 2D Design for laser cut products, and Boxford Design Tools. We provide students with a free access code to SolidWorks to use whilst they are studying with us.

Q: Do I have to use CAD?

Yes! We will teach you how to use all forms of CAD available. CAD is a crucial part of your Non-Examined Assessment and must be included as a part of your portfolio. We will do a number of tasks throughout year 12 to increase your skills and confidence.

Q: What degree courses does this lead to?

Many of our students go on to study:

- Product Design
- Industrial Design

- Architecture
- Interior Design
- Engineering

Q: Do many students go on to university?

Around 50-60% of students who take Design & Technology go onto design related courses at University.

Q: Can I come in outside of my lessons?

Of course! We will always try to find a space for our A Level students to work in. Students are welcome to come during their free periods, or if they have free time during another groups lesson, they can come then.

Q: What experience do the staff have?

All of the staff in the department have taught design and technology for a number of years. Within the department we all have our individual strengths in areas across the subject, which enable us to work as a team and provide the best teaching and support for the students possible.

Q: What facilities do you have?

We have one of the best resourced departments in the county. Within our department we have access to:

- 3 D&T dedicated computer suites
- Graphics tablets
- Band saws (in every classroom)
- Pillar drills (in every classroom)
- 2 Brazing hearths
- CNC lathe
- CNC Milling machine
- CNC Router
- Polishing wheels
- Grinding wheels
- Power hacksaws
- Belt sanders
- 4 x 3D printers
- Lazer cutter
- A0 printer
- Aluminium casting area
- Welding equipment
- A wide range of hand power tools

Plus much more.

The availability of this kit allows our students to be as creative as they like with their final projects, and gives them the opportunity to try new ways of manufacturing.

Q: Is there much practical?

The course aims to deliver as much practical knowledge as possible to all students to ensure that everyone is able to manufacture a successful product at the end of year 13. We deliver a range of projects throughout year 12 that will upskill all students in this area.

In Year 13 the expectation is that all students will manufacture a product as part of their coursework, which will allow students to put into practice all of the practical skills they have learnt in year 12.

Q: Is there much theory?

Yes. Each week your three lessons are divided into 2 practical skills or project based lessons, and one theory lesson.

Q: Do I need to have done GCSE DT?

Ideally, yes. A GCSE in Design and Technology (of any variant) or Engineering (including similar vocational qualifications i.e. Cambridge Nationals) will enable you to have the prior learning required to be successful on this course. We will occasionally however allow highly capable students who have been unable to study these subjects at their school to do the course, but we will ask for evidence demonstrating this capability (technical understanding alongside design skill), and it will be on the understanding that they will have a large degree of extra study needed to get up to speed.

Q: I heard maths is involved, is this true?

Yes. The course involves around 15% **applied** maths and **applied** science. This will be assessed through some maths questions in the exam papers, and applications of this is needed in the NEA.

Q: What equipment do I need?

You will need:

- Drawing pencils – a couple hard (2/3H), a couple soft (2/3H) and a few in between (HB)
- A decent pencil sharpener
- A soft rubber
- Fine liners – 3mm and 8mm at least
- Colouring pencils – avoid cheap ones

- Spirit based markers for rendering
- Computer use at home
- Access to cloud based storage (Google Drive, Drop Box)
- A3 carry case
- A3 sketchbook (ideally ring bound)
- A4 ring binder

We will be utilising modern technology where possible, so will be using Microsoft PowerPoint for coursework folios, Adobe Photoshop/Illustrator for graphics, SolidWorks for 3D CAD work, and Techsoft 2D design for laser cutting.

All of these will be available for you to use during the course whilst at Fernwood, but you may find it useful to have PowerPoint at home too. We have copies of SolidWorks that you can have for home use.

Q: What is the structure of the course?

The course in Year 12 is split into 3 weekly lessons. 2 lessons each week focus on developing practical skills and drawing skills through mini projects, and one lesson each week will be focused on theory based learning. At around Easter of year 12, we will begin work on the NEA, and so 2 lessons per week will be dedicated to this.

Students are expected to carryout homework tasks which are set in line with Bilborough's policies.

In year 13, we will follow the same plan; 2 lessons focused on NEA work, 1 on theory.

Q: What do we do for our NEA?

Your NEA is completely down to you. You will need to decide on a context, and research it and its problems in detail before beginning to design a product. We will spend lots of time exploring potential topics and understanding contexts before you start.