



28 September 2026

Dear Parent/Carer

KS3 Design Technology

We are excited to welcome our new Year 7 students to our wonderful Design Technology department. Design Technology is an exciting and valuable subject that encourages students to become creative, technical and practical problem solvers. Throughout Key Stage 3, students will use a variety of materials, processes, tools and skills to design, develop and manufacture a range of exciting projects.

We aim to maximise students' practical experience whilst giving them access to high-quality materials and the latest technologies, including 3D printers and modern manufacturing equipment. DT encourages students to think creatively, solve problems, test ideas and develop their designs, helping them become confident and independent learners.

To support the practical work completed throughout Years 7–9, we ask for a **voluntary one-off workshop contribution of £20 per student**. This covers the majority of the materials students will use during Key Stage 3 and enables them to take their completed products home.

To make your payment, please go to **Arbor Payments**, where you will find the **KS3 DT Contribution** link.

We hope your child thoroughly enjoys their Design Technology journey with us and takes pride in the exciting products they will design and make throughout Key Stage 3.

Please see the attached document for further information about the projects we currently run in the DT department.

Thank you for your support.

Yours sincerely

Mr T Williams

Programme Leader, Design Technology

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Learning Trust Alliance Teacher Training Teaching School Hub

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Design Technology KS3

Year 7

Desk Tidy



CAD/CAM



Timbers and Plastics

- H&S Workshop introduction.
- Selecting of materials for their properties.
- Selection and use of tools, machines and processes of manufacture.
- Plastic processes - HIPS vacuum forming.
- Introduction to timbers - manufactured vs natural.
- Designing to scale.

CAD/CAM + Plastics

- Intro to CAD - techsoft design
- Laser cutting.
- Prototyping and modelling in card.
- Working with Plastics Designing for purpose.
- 2D into 3D sketching.

Year 8

Jewellery



LED acrylic light



Timbers and Metals

- Biomimicry designing - speed sketching and presentation techniques.
- CAD/CAM - moulding design/manufacture.
- Introduction to Metals - casting, finishing, properties.
- Working with timbers, manufactured vs natural woods.
- Using adhesives

Work of others - CAD/Electronics/ Materials

- CAD/CAM development
- CAM development - Laser etching, cutting and 3D printing
- Investigate the work of others (architecture)

Year 9

Time Piece



Passive Speaker



Avoiding fixation

- Introduction to the work of designers - 'Vitra' Design.
- Designing a clock without fixation.
- CAD expertise - techsoft design.
- CAM expertise - laser cutting.
- Iteration - modelling
- Understanding and using timbers - veneers.
- Using Acrylic.

Iterative Design

- Analysing existing products.
- Orthographic Drawing
- Sound travel (STEM)
- Creative Designing
- Physical designing via prototyping.
- Manufacturing high quality.
- Timber processes - addition and wasting.
- Introduction to Sketchup 3D CAD modelling
- Evaluation techniques.