

Kingsmead School

**Technology Departmental Aims and Objectives.**

To deepen students’ knowledge and understanding of the D&T world around us while developing products that help various needs and users. The curriculum develops an awareness and clear understanding of practical skills using a range of different materials and ingredients all crucial to life. Our curriculum allows students to experience a range of fun and exciting projects that solve real and relevant projects. Cooking and nutrition: Being able to cook and apply principles of nutrition and healthy eating. The curriculum develops an awareness and clear understanding of a range of ingredients, practical skills and kitchen equipment, all crucial life skills.

***As a department we aim to:***

* Encourage and help all individuals to reach their full potential and feel proud in their achievements.
* Encouraging independent learning, preparing students for assignments and equip them with personal transferable skills, for later life.
* Consistently monitor students’ progress to ensure they are remaining on target to achieve their full potential.
* Ensure the classroom environment is conducive to learning and that students feel safe and secure within that environment.
* Develop and disseminate good practice through regular departmental meetings and Learning Walks. Supporting each other and aiming to remove variance across the department area.
* Strengthen the links with the MAT and bring in guest speakers from the workplace to link learning to the wider world and opportunities on offer.

**KS3 Curriculum – following the national curriculum**

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

**Please see learning journey to gain a better understanding of the projects taught at KS3.**

**KS4 – AQA Design Technology GCSE 50% NEA 50% Exam**

 **Year 10 curriculum theory 50%**

In order to make effective design choices throughout the AQA Design and Technology course, students will need a breadth of core technical knowledge and understanding that consists of:

• new and emerging technologies

• energy generation and storage

• developments in new materials

• systems approach to designing

• mechanical devices

• materials and their working properties.

Students will focus their learning on theory topics that will link into their exams and coursework. The focus being this term:

• materials and their working properties - specialising in timbers - where students understand timbers while applying their knowledge in a practical problem-solving live project. Then will focus on other materials that will be worked with within Technology.

• new and emerging technologies - this is where students must know and understand the impact of new and emerging technologies on contemporary and potential future scenarios.

• energy generation and storage

• developments in new materials

• systems approach to designing

• mechanical devices

These will be taught within a practical environment solving real life problems with the knowledge gained.

**Year 11 – NEA 50%**

Students will be introduced to the non-exam assessment which contributes towards 50% of the students’ overall mark. The NEA project in its entirety should take between 30–35 hours to complete and consist of a working prototype and a concise portfolio of approximately 20 pages of A3 paper, equivalent A4 paper or the digital equivalent.

**KS5 – AQA Design Technology: Product Design – NEA 50% & Theory 50%**

A-level Design and Technology: Product Design requires students to engage in both practical and theoretical study. This specification requires students to cover design and technology skills and knowledge as set out below, linked to theory. These have been separated into:

• technical principles

• designing and making principles.

Students also undertake an NEA which is 50% of their A level qualification.

Technology at Kingsmead keeps on growing, we are very excited at expanded or team further.