

# Technology

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## Curriculum Rationale

We strive to provide an exciting and inspiring experience for our pupils, embracing the principles of the National Curriculum. We expect our pupils to become informed, successful and creative learners who can empathise with others and produce solutions to problems. Our broad and balanced 'multi-discipline' curriculum both encourages and challenges our pupils to persevere and only accept their very best. With our enthusiasm and encouragement, we will promote a love for learning in each of the disciplines within the faculty.

Technology is made up of design technology (DT) and hospitality and catering (H&C). During each academic year in Key Stage 3 and 4, pupils will experience a balanced curriculum where weekly lessons are split equally between theory and practical. Programmes of study have been developed to cover food technology, food hygiene and building a repertoire of practical skills, nutrition and balanced diet, materials, designing and modern industrial systems and processes such as computer aided design and computer aided manufacture.

Technology Threshold Concepts are the over-arching ideas and concepts that we include within our teaching. These concepts are what we use to ensure pupils achieve mastery within Technology and the individual subject areas. These have been developed by Technology specialists across the Trust.

Design and Technology	Hospitality and Catering
<ol style="list-style-type: none"><li><b>1. Research:</b> Projects will develop a range of research and exploration skills, such as the study of different design influences to identify and understand user needs working from a variety of briefs.</li><li><b>2. Design and Develop:</b> Pupils will utilise their research to communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling and computer-based tools (such as Google SketchUp and 2D Design).</li><li><b>3. Analyse and Evaluate:</b> Pupils will test, evaluate and refine their ideas and products against their specifications, taking into account the views of intended users and other interested groups such as their peers and family.</li><li><b>4. Manufacture:</b> Projects will develop pupils' abilities to select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture using the laser cutter and engraving machine.</li></ol>	<ol style="list-style-type: none"><li><b>1. Hospitality and Catering in Industry:</b> Pupils learn about all aspects of the vocational sector; they acquire knowledge of all aspects of the industry and propose new hospitality and catering ideas. Pupils will learn about different types of establishments and job roles which will then be applied in relations to front of house and kitchen operations, furthermore pupils will about how to efficiently operate hospitality and catering provisions legally and financially whilst meeting the needs of the potential market.</li><li><b>2. Hospitality and Catering in Industry:</b> Pupils learn how to safely prepare, cook and present nutritional dishes. They will draw on their learning of different types of provisions, kitchen and front of house operations as well as personal safety in their preparations.</li></ol>

The threshold concepts have been decided upon as they are the crucial aspects in which pupils will need to be successful to ensure they are progressing and becoming masters of each individual subject. Our concepts have been drawn from our KS4 curriculums and what we expect pupils will be able to demonstrate and know once they have navigated through KS3, allowing them to be successful learners at KS4. These concepts allow pupils to thoroughly develop the necessary knowledge and skills. Our curriculum ensures powerful knowledge can be accessed by carefully plotting the route our pupils will follow and

exposing them to topics such as areas of industry where they learn valuable information and then embed this within their own work; both practically and theoretically. Our curriculum is specifically tailored to allow pupils to fully immerse themselves into design technology and hospitality and catering, empowering them to have a more well-rounded understanding of how our subjects provide significant positive changes in society. We are ambitious and inspiring by introducing our pupils to experts within our industries; British designers, design movements and key examples from the hospitality and catering profession are all embedded within our balanced curriculum. This includes exposing pupils to experts from our subjects and allows our pupils to be influenced by high quality work and design. This is essential to be able to access deeper understanding and cultural capital for design technology and hospitality and catering.

## **Curriculum Overview**

Pupils arriving at Dean Trust have had greatly differing experiences of technology. Our KS3 curriculum supports pupils in developing a deep and thorough understanding of design technology and hospitality & Catering, regardless of their starting point; all pupils gain the same knowledge from the start of KS3. By designing our curriculum to support and challenge in incremental steps, we allow pupils to combine information with practice and develop their understanding about the world of Technology.

### **Year 7**

At the start of Year 7, pupils will complete two projects in design technology and hospitality and catering. Pupils will study core theory enabling them to complete practical lessons safely. Pupils will learn workshop and kitchen safety whilst making a variety of products using various ingredients and materials. During the Spring and Summer term, pupils will further develop their knowledge and skills in hospitality and catering by completing a project focused around healthy eating, they will also develop their Computer Aided Design and Computer Aided Manufacturing skills.

### **Year 8**

In Year 8, pupils will continue to develop their skills in the workshop and kitchen by completing a term long project in each discipline. Pupils will participate in projects such as the best of British design and food provenance. Food provenance supports pupils understanding of where food comes from and how it gets to our plates, practical lessons are focused on the production of bread-based products. The best of British design is a materials-based project where pupils will begin to develop their understanding of inspirational British designers and use this to represent their personal identity as a British citizen.

### **Year 9**

In Year 9, pupils will begin to develop their abilities and qualities as a product designer as they navigate through 2 challenging projects, set out in a GCSE format. Pupils will be able to design and create their products using a range of skills, including developing the ability to solder, use 2D Design and the laser cutter. Pupils will develop their knowledge and understanding of a range of material areas as well as being prepared for GCSE should they wish to choose this as an option subject. In hospitality and catering, pupils develop an understanding of how the hospitality and catering business operates by learning about different establishments, how they are run and the roles within them. In practical lessons pupils will continue to develop their practical skills in preparation for Key Stage 4.

### **Year 10**

Design and technology in Year 10 focuses on exposing pupils to all materials in both theory and practical based projects. Pupils will develop specialist core knowledge that will be applied to exam style questions and linked to industry. During the year, pupils will complete small projects and non-exam assessment style work ahead of the exam board release date in June. When the exam board release the NEA (non-exam assessment) focus, all pupils will begin to put their knowledge into practice to develop a professional portfolio of evidence alongside a high-quality practical product. This work is the main focus for the pupils until February of Year 11.

### **Year 11**

Continuing with the non-exam assessment (NEA) that was started in June of Year 10, pupils will be straight back into their portfolio work. It is expected that pupils have achieved up to a specific point when they leave for summer in Year 10. Upon their return, pupils will be completing their research elements and begin designing and developing their ideas alongside creating functional 3D models throughout the first term. As December approaches, pupils will begin to test and manufacture their prototypes whilst also evaluating against their chosen criteria and finishing their non-exam assessment by February. During Year 11, pupils will also continue to learn and consolidate the theory elements to GCSE design and technology ahead of the summer exams. The professional portfolio and practical product will finally be moderated by the exam board.

### **Key Stage 4 Hospitality and Catering**

#### **Year 10**

Throughout Year 10 pupils will be learning about the hospitality and catering industry through five learning objectives.

LO1 Understand the environment in which hospitality and catering providers operate

LO2 Understand how hospitality and catering provisions operate

LO3 Understand how hospitality and catering provision meets health and safety requirements

LO4 Know how food can cause ill health

LO5 Be able to propose a hospitality and catering provision to meet specific requirements

Theory lessons will focus on pupils working towards the Unit 1 exam which will be taken in June of Year 10. In practical lessons pupils develop their catering skills through focused projects each half term. These focused projects allow pupils to consolidate learning from previous years and build new knowledge that is required for both their theory and practical exams.

#### **Year 11**

Year 11 sees our pupils begin producing their Unit 2 non-exam assessment work where they will spend their final year undertaking three tasks in order to complete this unit:

- Task 1 is focused on research and planning possible dishes based on the brief.
- Task 2 is planning your proposed dishes for the brief.
- Task 3 is making the planned three dishes.

All parts of the non-exam assessment will be submitted to a final external moderator by May of year 11.