

Y8 DESIGN AND TECHNOLOGY



DESIGN AND TECHNOLOGY AT YARDLEYS

INTENT: The Design and Technology Curriculum aims to nurture the designers, engineers, and architects of a more sustainable world where they can be reflective and creative individuals able to solve real-world problems using practical solutions. Students are encouraged to consider the needs of others when designing and making products, taking into account the values, culture and the well-being of the nation. We also encourage them to take risks and question the world around them by understanding that design is all around us and that design is for all. The Design and Technology curriculum will give all students the cultural capital they need to succeed in life as well as the ability to challenge and change the ever-changing world of Design and Technology.

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Throughout the year pupils at Yardleys will continue to build on the skills and knowledge they developed in Year 7 through a DT curriculum that further develops the core aspects of product design and making. They will develop increase their understanding of nutrition and basic food preparation skills and develop the apply technical awareness and understanding of electronics within a Systems and Control unit of work.

YEAR 8

Theme	<i>"Designing for People"</i>	<i>"Design Development"</i>	<i>"Production and Industry"</i>	<i>"Making 1 and Making 2"</i>	<i>"Food, Cooking and Nutrition"</i>	<i>"Systems and Control"</i>
SUBSTANTIVE KNOWLEDGE	User Needs Research Creativity/Inspiration New Technology Impact of Technology Design Specification	Presenting Ideas Drawing Techniques CAD 3D Modelling Sustainability 1	Industrial Practices Manufacturing CAM/CNC Health and Safety Sustainability 2 Planning	Materials: Classifying Materials Selecting Materials Testing Materials Sustainability 3 Materials: Stock items/bought components CAM	Healthy eating and nutrition Properties of ingredients Choosing ingredients Processing ingredients	Components Input-Process-Output Sensors Manufacture
DISCIPLINARY KNOWLEDGE	User Profile Sources of Information ACCESS FM Product Analysis Evaluation of Research	Be, Do and Have Sketching/Crating Isometric 2D CAD Sustainability - 6R's Evaluation of Design	Scales of Production One-off/Batch/Mass Quality Control/QA Accuracy Sustainability – Sources of Power	Tools and Processes Measuring and Marking Forming/De-forming Sustainability – Waste and Pollution Joining – temporary and permanent Finishing Evaluation of Final Product	Additives Planning a meal Cooking Methods Cooking Equipment Evaluation	Names and uses of components Soldering Health and Safety Testing Evaluation

We aim to provide students with a curriculum that educates the whole child, creating responsible and respectful citizens. Through the development of substantive and disciplinary knowledge students are given the tools that allow them to achieve excellence and be ready for life.