

# Y8



## 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.

## Y8 DESIGN AND TECHNOLOGY

Pupils further develop their designing and making skills with a greater emphasis on design development, modelling and a greater understanding of industrial practices.

# YEAR 8

Theme	Knowledge and Understanding in Design and Technology: KEY RING Industrial Processes - Jigs and Formers PROJECT	Developing Design and Technology Planning and Making Skills. Focus on planning, making and materials: Mechanical Toy (Automata) Project.	Knowledge and Understanding in Design and Technology Focus on specific D&T theory and additional knowledge and skills
<b>SUBSTANTIVE KNOWLEDGE</b>	Working with a variety of materials More complex tools and processes Health and Safety in the workshop Planning practical activities	Mechanisms and movement Cams and followers 3D CAD skills 3D modelling Comparing hand skills with CAM Planning	Materials: Classifying materials Selecting materials Testing materials Sustainability
<b>DISCIPLINARY KNOWLEDGE</b>	Working properties of materials Selecting materials Measuring and marking out Forming/de-forming – cutting and shaping Joining – temporary and permanent Finishing – aesthetic and functional Evaluating and testing products	Scales of Production: One-off/Batch/Mass Quality Control and product testing Accuracy and tolerances Detailed planning and recording of making Critical evaluation of manufacturing process	Additional tools and processes Measuring and marking out Forming/de-forming – cutting and shaping Additional finishing techniques Understanding waste and pollution and sources of power