

Y9 Product Design

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Curriculum Intent:

Design and Technology enables children and young people to actively contribute to the creativity, culture, wealth and well-being of themselves, their community and their nation. It teaches them how to assess and take risks and so become more resourceful, innovative, enterprising and capable.

Perhaps most importantly, it addresses the 'why?' as well as the 'what?'

	Core Knowledge	Procedural Knowledge
	Topic	Pupils will
Rotation one	Product Design • George Carwardine • Linkages and Motions • New and emerging Technology • The history and development of flatpack furniture and its relevance in modern design • Manufactured boards	• Working to a design brief using George Carwardine as inspiration. • Use motions and linkages to inform design prototypes iteratively. • Look into New and Emerging Technology, market push and pull • Looking at how manufactured boards are created and understanding the benefits of using them over natural materials and use Ikea as a stakeholder following their principles. • Manufacturing using timbers and composites safely and methodically.
Rotation two	Architecture • Architectural Styles and Influences • Conducting SWOT analysis to evaluate design ideas and user needs • Form, Function, and Aesthetics	• Understanding key architectural movements (such as Modernism and Parametric design) and how cultural, historical, and environmental factors influence building design. • Exploring how buildings are designed to meet user needs, suit their environment, and express visual appeal through shape, material, and proportion. • Learning how to produce accurate architectural drawings using plan views,

	• Understanding and applying scale factors in technical drawings and model • Modelling and Communication	elevations, and sections, and how to apply scale effectively. • Developing skills in physical and/or digital Model - making to represent architectural concepts clearly and convincingly for a target audience or client.
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Homework:

Homework is set on Brom Com for each 9-week rotation. Homework is in the form of a mastery knowledge organiser paired with revision tasks for students to complete. This will aid revision for tests and a mid-way knowledge review.

Assessment:

Formative verbal and end of rotation summative feedback. Assessment takes place mid-way through a rotation in the form of a quiz which creates whole class feedback and at the end of a rotation capturing knowledge secured.

Links to Personal Development:

Dexterity and hand skills. Self-evaluation of work. Presentation skills.
Research/analytical skills

How is my knowledge developed further at GCSE?

Product Design GCSE.

Design and making of timber products (including relevant theory) is developed.

Design and making of Products using CAD/CAM, as used in industry (including relevant theory) is developed.

Deeper knowledge and understanding of materials, processes and the core knowledge required of a Product Designer is furthered.

This is good preparation for the A level in Product Design