

Y8 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	Polymers - Material properties of Polymers - Electronics - Polymer Manufacturing processes - Bio Polymers and Sustainability	- History of Polymers including reading materials. - Design and manufacture a working product - Manufacturing process relating directly to polymers, capabilities in industry and school workshop capacity. Vacuum forming, Blow Moulding, 3D Printing, Extrusion, Drape forming and injection Moulding. - Manufacturing process relating directly to polymers, capabilities in industry and school workshop capacity powder coating - Basic electronic understanding and applications to build a functioning circuit.
Rotation two	Textiles - Material properties of Textiles. - Hand Embroidery - Applique - CAD/CAM - Dye Sublimation - E-textiles	- Understand the pop art movement and be able to create a pop art inspired design for a tote bag - Understand different decorating techniques used within the textiles industry - Understand what smart materials are and be able to suggest ways in which they can be used in the modern world - Understand the process of dye sublimation - Understand the developments of CAD CAM within the textiles industry - Be able to create an electronic textiles circuit using and LED bulb, electronic thread, battery holder and a battery

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 further developed in Year 9? (next academic year)
In Year 9, Students will uncover what it means be an iterative product designer. Explore design history and practices, work to a set brief, feel competent in practical workshop skills.