

# Product Design

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**Curriculum Intent:** Students will learn through a variety of projects during KS3/4 and 5, how to use the technological principles of explore, create, and evaluate to solve problems. On this learning journey, these projects will also bestow upon them the technical knowledge required to be a Product Designer.

	Core Knowledge	Procedural Knowledge
	<b>Topics:</b>  4 Ps of sketching  Nets  Thick and thin lines concept  Types of wood  Timber properties  Thermo-polymers categories  Templates and jigs  Temporary and permanent fixtures  Specifications  Introduction to Iterative design  Area/Volume (maths)	<b>Students will:</b>  Develop basic sketching skills and practise isometric drawing  Render  Learn about One point perspective and Two-point perspective  Learn about crating  Use thick and thin lines  Use Hand tools and power tools such as the band facer, pillar drill  Use templates and jigs  Learn independently  Evaluate  Use the correct Mathematical formula to solve problems  Design to a specification

**Homework:** Homework is set on Satchel:One for every six hours taught  
Homework will comprise a presentation on The Positive Impact of Technology and revision for tests

**Assessment:** Formative verbal and other feedback  
Exploration grade (research), Create grade (making), Evaluation grade, Principles grade through a multiple-choice test and presentation skills and content grade.

**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 8?**

In Year 8, students will learn the following through a sustainability project – Sustainable design, 6 Rs of sustainability, analysis of products and their environmental impact, materials properties, advancement of previous workshop skills and basic metal skills.