

What do students need to understand about Product Design as a discipline?

- Designers and craftsmen work towards a clients design brief and specification.
- Mistakes are positive and are encouraged, solving problems through resilience is key.
- Iterative designing refines ideas and final products.

Why is the Product Design curriculum at MRC important?

Our curriculum aims to:

- provide students with skills and knowledge to fulfil a variety of careers.
- Encourage students to learn from their mistakes.
- Allow students to better understand modern technology.



The overall outcomes:

- A life-long love and appreciation of Product Design.
- understanding the career choices available to them after Design & Technology.
- Problem solving through iterative design and making.

Iterative Designing

A circular design process that models, evaluates and improves designs based on the results of testing

- Problem solving
- Core subject knowledge
- Analysing existing products
- Market research
- Technical drawing skills
- Freehand drawing skills
- Refining ideas
- Prototype card modelling
- Adaptations and improvements
- Understanding materials and processes
- Mastering tools and machining
- Evaluating successes
- Life cycle assessment

Product Design

Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
Workshop health and safety	Product analysis	Product analysis	Model airplane	Non-exam assessment Preset set of question topics	Design movements styled Lighting	Client based project research
Understanding workshop tools and machinery	Material properties and identification	Timber joints	Storage prototype	Continuation of investigation section	Architecture model	Client based project designing
Product analysis	Isometric drawing	Mechanical toy design	Pewter casting	Designing products - Technical drawing	Start of research for Client based project – self chosen	Client based project making
Isometric drawing	Two point perspective drawing	Mechanical Toy making	Passive amplifier	Making a prototype or working model - Processes and materials	Exam - Theory of product design	Client based project evaluation
Timber identification	Computer aided design and manufacturing	Year 9 Option choice (summer term)	Investigation section for Non-exam assessment	Evaluation of project		Exam - Theory of product design
Block robot designing	Desk Organiser designing	Mini non-exam assessment project	Exam - Theory of product design			
Wooden Block Robot making	Desk Organiser making	Research/ design/ make/ evaluate		Exam - Theory of product design		