

Y7 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	Metals - Material properties of metals. - Explore, create and evaluate Symmetrical design ideas. - Metalworking processes and tools.	- Be able to work safely in the workshop environment. - To respond the history of Sheffield Steel. - Select and use specialist tools, techniques, processes, equipment and machinery precisely. - Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations. - Understand the definitions for ferrous, non-ferrous and alloy. - Understand the techniques chasing and repousse.
Rotation two	Timbers - Material properties of Timbers. - Explore, create and evaluate intricate design ideas using CAD. - Timber processes and tools.	- To understand that design changes like fashion and different ideas and processes emerge in due course. - Recognising the difference between Art Deco and Art Nouveau and putting it into practice when designing their box lid. - Understanding CAD/CAM creating a laser cut design. - Learning the difference between hardwoods and softwood, deciduous and evergreen trees. - Sustainability and what the FSC do globally and how it benefits us all.

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 8? (next academic year)
In Y8, students will develop knowledge of materials exploring textiles and polymers and investigate manufacturing methods in more details. Pupils will gain a better understanding of working for a Stakeholder. Delve into sustainability and environmental impact of materials.
advancement of previous workshop skills and basic metal skills.