



Marshalls Park Academy - Curriculum Overview

Subject: Design and Technology

Year Group: 7

Students will be introduced to the workshops and graphics room. They will focus on a mixture of theory and practical skills. Projects will begin with theory and then move on to the design process. They will then complete the practical element and finish the topic with an evaluation. The evaluation allows students to become accustomed to critiquing their work and using keywords to explain technical processes.

The projects look at a variety of different materials and tools giving students a basic understanding of topics. This also creates an easy transition from year 7 to year 8.

TERM 1 WOODEN TOY	TERM 2 CHOCOLATE MOULD & PACKAGING	TERM 3 CAD/CAM
<p style="text-align: center;">KNOWLEDGE/SKILLS</p> <p>Students will learn a range of different cams and the motions they produce. Students will learn to mark out and cut a lap joint. Cut intricate shapes to attach to cam</p> <p>Theory content CORE – Timbers & Boards + Environmental / Sustainability + Basic processing into stock forms. Cams and levers. Types of motion.</p>	<p style="text-align: center;">KNOWLEDGE/SKILLS</p> <p>Design to a given Brief. Produce pattern from MDF base and card. Vacuum form to produce mould. Design / develop packaging using 2D design with a focus on manipulating images & text. Maybe development of nets!</p> <p>Theory content Plastic forming techniques. Vacuum form, Injection mould, Blow mould & extrusion. Recap and develop understanding of the environmental impact of plastics with a simple LCA of a plastic product.</p>	<p style="text-align: center;">KNOWLEDGE/SKILLS</p> <p>Design then laser cut mobile phone holder. Focus on development of 2D design skills & recording development of design by copying work after each stage.</p> <p>Theory content CORE – CAD, CAM Advantages & disadvantages. Raster / vector on laser cutter</p>

KEY ASSESSMENTS	KEY ASSESSMENTS	KEY ASSESSMENTS
<p>HALF TERM 1 Research (Timbers & motions) Design ideas</p> <p>HALF TERM 2 Final product and evaluation</p>	<p>HALF TERM 1 Research (Papers & boards and functions of packaging) Design ideas Model</p> <p>HALF TERM 2 Final product Evaluation</p>	<p>HALF TERM 1 Research (Target user, brief and specification) Design ideas</p> <p>HALF TERM 2 Final product Evaluation</p>