



The De Montfort School

UNLOCKING YOUR CHILD'S POTENTIAL

Programme of Learning

Design & Technology with Resistant Materials

Key Stage 3 – Year 9

Subject	Error! Bookmark not defined.
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Design & Technology

Course Content	Assessment	Independent Study
<i>Year 9 Half Term 1</i>		
<p>Party Mask: Students analyse existing party masks looking at ergonomics and aesthetics. They then generate a range of creative designs for a new mask before modelling a chosen design.</p> <p>Mood Lamp 1: Students will respond to a situation and develop a design brief and specification for a Moos Lamp. They will then carry out research and generate designs which they will model and develop. Lastly they will plan how to manufacture the product using the workshop facilities.</p>	<p>Students will be internally assessed and given a level based on their ability to:</p> <ul style="list-style-type: none"> - Explore a task. - Generate ideas. 	<p>Students will be expected to:</p> <ul style="list-style-type: none"> • Evaluate existing products. • Practise sketching techniques. • Carry out independent research.
<i>Year 9 Half Term 2</i>		
<p>Mood Lamp 2: The bulk of this half term unit will be spent manufacturing students' chosen designs. In order to do this the students will develop their knowledge of resistant materials, processes and learn the practical skills relevant to their design.</p>	<p>Students will be internally assessed and given a level based on their ability to:</p> <ul style="list-style-type: none"> - Manufacture a product. - Evaluate the outcome. 	<p>Students will be expected to:</p> <ul style="list-style-type: none"> • Carry out further reading and homework tasks on materials and manufacturing theory.
<i>Year 9 Half Term 3</i>		
<p>Door Sign: This is a short project where students will design a Door Sign using computer aided design to be manufactured out of plastic on the laser cutter.</p> <p>Sports Bar: Students develop their knowledge of computer aided design by designing and manufacturing some innovative packaging for a healthy sports bar. To do this they will need to analyse existing products and respond to a design brief and specification. Once complete they will evaluate the outcome.</p>	<p>Students will be internally assessed and given a level based on their ability to:</p> <ul style="list-style-type: none"> - Develop and model ideas. - Evaluate the outcome. 	<p>Students will be expected to:</p> <ul style="list-style-type: none"> • Carry out further reading on CAD and CAM theory. • Complete design work using CAD.

<i>Year 9 Half Term 4</i>		
<p>Car Design: This is a project where the pupils will research car designs and then produce some designs using a variety of methods including sketching and modelling.</p>	<p>Students will be internally assessed and given constructive feedback.</p>	<p>Students will be expected to:</p> <ul style="list-style-type: none"> • Carry out further reading on cars. • Carry out further research into cars.
<i>Year 9 Half Term 5</i>		
<p>Graphics 2/Systems: Students will design and make an educational toy in this unit. They will make a simple circuit to illustrate correct/incorrect answers. They will also put into practise other skills learnt during year 9 (graphic design, CAD, workshop skills and the design process).</p>	<p>Students will be internally assessed and given a level based on their ability to:</p> <ul style="list-style-type: none"> - Plan the manufacture of a product. - Manufacture a product. 	<p>Students will be expected to:</p> <ul style="list-style-type: none"> • Try different methods of planning. • Complete systems & control homework tasks.
<i>Year 9 Half Term 6</i>		
<p>Pencil Box: Students will develop their knowledge of woodworking, materials, tools and processes by making a pencil box. They will work on accuracy and quality of outcome by following detailed plans. Students will then design a graphic for the lid which will be manufactured using the laser cutter.</p>	<p>Students will be internally assessed, given a grade and constructive feedback using criteria similar to the OCR GCSE mark scheme.</p>	<p>Students will be expected to:</p> <ul style="list-style-type: none"> • Carry out further reading and homework tasks on materials and processing theory.