

Year: 9

Subject: Design & Technology Vacuum Forming

Term	Week	Focus	Summary	Learning Outcomes	Parental Support	Indenpendant Learning
	1	Vacuum Forming Introduction to project	Introduction to lesson - (explain about the material that they will use e.g.: where it is used, the different polystyrene colours used. What process is used to heat and mould the polystyrene sheets to the shape designed by students and how they can create various shapes etc) also show samples of work from previous class. Discussion about the brief, what is the brief then students will write up their own brief.	Students will learn the process in making their vacuum forming project.	Students to discuss with parents the project they will be making.	
	2	Vacuum forming Investigation and Drawing of designs	Recap on previous lesson. Students will do an internet investigation on the different vacuum forming products out there. Discuss and take ideas from students , explain what is possible to make (taking into consideration the limitations of the project) Students could make a pen holder or a logo of their choice. The students will be given an idea sheet of different shapes as examples to copy. Students then draw	Students will be able to produce ideas for their project.		Students will do own internet research on vacuum forming products on the market. Students will draw their own ideas.

			<p>their own ideas of at least eight different designs, developing what has been found in their investigation and shapes from idea sheet wherever possible. Students will start their coversheets and continue at any spare time.</p>			
3	<p>Vacuum forming</p> <p>Choosing design</p>	<p>Recap on previous lesson and complete any unfinished work. Discuss ideas that students have drawn, and then each student has to choose a design that is practical and within their ability to make, draw an enlarged size and then a development/net drawing showing measurements and where shapes etc need to be. Once completed, the student can continue colouring coversheet and other design work.</p>	<p>Students will be able to choose a design that they will make according to their ability.</p>	<p>Students can discuss with parents on what they hope to make.</p>		
4	<p>Vacuum forming</p> <p>Continue design work</p>	<p>Continue design work – colouring. etc. Students must then draw a template (taking sizes from their development/net drawing) on a given piece of card (100mmx100mm), transfer onto their given piece of</p>	<p>Students will produce a template of the shape that will be used for their project.</p>		<p>Students will draw and cut out shape on card to make template.</p>	

			M.D.F. board which they will make the mould from.			
	5	Vacuum forming Tool recognition	Start practical – Name out the different types of tools and demonstrate how to saw, file, drilling and sanding techniques. I DO, WE DO, YOU DO. Demonstrate how to cut the M.D.F. board to shape their moulds. Explain and make students aware of health and safety in the workshops. Once completed, the students carry on shaping the mould.	Students will be able to recognise the tools and how it is to be used for their project.		
	6	Vacuum forming Practical work	Continue practical – Demonstrate to pupils how to cut out letters and other shapes with M.D.F and continue to smooth the edges. (The cutting can also be done with laser cutter or coping saw and fret saw). The edges have to be filed sanded to the shape of their work neatly.	Students will start preparing mould ready to be vacuumed.		After demonstration, students will work independently with their practical work for the next few weeks.

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2A	7	Vacuum forming Practical work	Continue practical - proceed with any of the above tasks if not completed. Once completed students must make sure all surfaces are	Students will continue preparing mould to be vacuumed.		

			smooth and no sharp edges, the moulds sections can now be glued together to form the required shape and left to dry.			
	8	Vacuum forming Practical work	Continue practical - proceed with any of the above tasks if not completed. The teacher will assist the pupil to sand the rough edges off the work with the electric sander if needed and then pupils will continue to sand with sandpaper till smooth. (Teacher can give assistance whenever appropriate).	Students will finalize sanding their moulds in preparation to be vacuumed.		
	9	Vacuum forming Practical work	Continue with Practical- All Pupils moulds will be put in the vacuum machine and vacuumed to the colour of plastic the pupils ask for. The edges of the moulds will be trimmed and sanded.	Student's moulds will be vacuumed, trimmed and sanded.		
	10	Vacuum forming Assessment	Students will do their evaluations and work to be marked.	Students will complete their evaluations and levels given.		

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2B						

