

Year 8 Polymers Design & Manufacture

Learning Programme 1

The LORIC skill focus for his LP is: LEADERSHIP The Moral Virtues focus for this LP are: COURAGE and HUMILITY.			Literacy Non-Negotiables: • Capital letters must be used at the start of sentences and for the first letter of proper nouns • Full stops must be used at the end of a sentence • Question marks must be used at the end of a question • Apostrophes should only be used for possession or omission • Days of the week and months must be spelled correctly • Key words must be spelled correctly • Vocabulary to be taught using the Frayer model
Courage - Acting with bravery and overcoming fears. I will show courage by answering a question in class even when I'm not 100% sure of the answer.			
Humility - Having a modest view of oneself. I will show humility by admitting mistakes and asking for help when needed.			
What will I be learning about in this Learning Programme? The source, categories and types of polymers; the impact of polymers on the environment; the process of thermoforming polymers; communicating design ideas and applying workshop safety when shaping and forming polymers.			
Where have I seen this learning before? In year 7 design & technology you will have used these tools and equipment when working with timber, papers & boards and textiles. You will have learnt about the sources of timbers, how they are processed and their impact on the environment.			
What could I use it for? You can use polymer materials to manufacture products in design & technology over your next 5 years. You will apply your knowledge of polymers in the GCSE design & technology exam. You can use hand tools to create polymer items in your everyday life.			
In LP1.1, I will know:	01/09/26 - (WK 1)	Key Vocabulary	Homework
what synthetic polymers are, their source and how they are processed; the environmental and social impact of using polymers to make products.		Polymers	The stages of processing polymers.
In LP1.2, I will know:	07/09/26 - (WK 2)	Key Vocabulary	Homework
the difference between thermoplastic polymers and thermoset polymers; the different types of polymers and their uses.		Thermoplastic polymers	Polymers and the environment
In LP1.3, I will know:	14/09/26 - (WK 1)	Key Vocabulary	Homework
how products are manufactured using the injection moulding method; how to communicate my desk tidy using isometric drawing techniques and annotation.		Thermoforming	Record the sizes of stationery for your desk tidy project.
Extended Task.			
In LP1.4, I will know:	21/09/26 - (WK 2)	Key Vocabulary	Homework
the difference between cross and draw filing; the different grades of abrasive paper used to produce a smooth finish.		Wastage	Filing manufacturing methods.
In LP1.5, I will know:	28/09/26 - (WK 1)	Key Vocabulary	Homework
how to use the step drill bit to create pen holes for my desk tidy; how to thermoform my desk tidy using the strip heater.		Drill Bit	Polymer questions to retrieve my knowledge.
In LP1.6, I will know:	05/10/26 - (WK 2)	Key Vocabulary	Homework
how to apply decorative finishes to enhance the aesthetics for my primary user; how to use screws to assemble my desk tidy.		Assemble	Describe the injection moulding process.
Extended Task.			
In LP1.7, I will know:	12/10/26 - (WK 1)	Key Vocabulary	Homework
how to evaluate the quality of my desk tidy.		Testing	Primary user feedback.
Resources to support learning: The following websites contain extensive revision material and information to increase design & technology subject knowledge: www.mr-dt.com; www.bbc.co.uk/bitesize.			
FFET Award Challenge for this Learning Programme: Interview a named primary user to identify their needs and wants for a desk tidy. Present your answers in an organised and aesthetically pleasing way.			

