

Year 8 Design & Technology - Polymers Design & Manufacture

Learning Programme 4

<p>The LORIC skill focus for this LP is: INITIATIVE. The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.</p> <p>Integrity - Having strong moral principles. I will show integrity by taking responsibility for my actions. Gratitude - Feeling and expressing thanks. I will show gratitude by saying please and thank you.</p>		<p>Literacy Non-Negotiables:</p> <ul style="list-style-type: none"> • 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
<p>What will I be learning about in this Learning Programme?</p> <p>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.</p>		
<p>Where have I seen this learning before?</p> <p>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.</p> <p>What could I use it for?</p> <p>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.</p>		

In LP4.1, I will know:	09/03/26 - (WK 2)	Frayer Model Words	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 LP4.2, I will know:	16/03/26 - (WK 1)	Frayer Model Words	Homework
the difference between thermoplastic polymers and thermoset polymers; the different types of polymers and their uses.		Thermoplastic polymers	Polymers and the environment

In LP4.3, I will know:	23/03/26 - (WK 2)	Frayer Model Words	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 LP4.4, I will know:	13/04/26 - (WK 1)	Frayer Model Words	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 LP4.5, I will know:	20/04/26 - (WK 2)	Frayer Model Words	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 LP4.6, I will know:	27/04/26 - (WK 1)	Frayer Model Words	Homework
how to apply decorative finishes to enhance the aesthetics for my primary user; how to use the hot glue gun safely to assemble my desk tidy.		Assemble	Describe the injection moulding process.
Extended Task.			

In LP4.7, I will know:	04/05/26 - (WK 2)	Frayer Model Words	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.technologystudent.com ; 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.

