The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 8 Polymers Design & Manufacture
Learning Programme 2

The LORIC skill focus for his LP is: ORGANISATION

The Moral Virtues focus for this LP are: COMPASSION and HONESTY

Compassion - the quality of feeling pity and concern for the sufferings or misfortunes of others.
Honesty - the quality of being truthful.

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.

Literacy:
- 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

In LP2.1, I will know: 19/10/26 - (WK 2)	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 LP2.2, I will know: 02/11/26 - (WK 1)	**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
LP2 RLW, I will: 09/11/26 - (WK 2)		
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.	Revise	Use revision techniques to prepare for summative assessment.
In LP2.3, I will know: 16/11/26 - (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. Extended Task.	Thermoforming	Record the sizes of stationery for your desk tidy project.
In LP2.4, I will know: 23/11/26 - (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 LP2.5, I will know: 30/11/26 - (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 LP2.6, I will know: 07/12/26 - (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. Extended Task.	Assemble	Describe the injection moulding process.
In LP2.7, I will know: 14/12/26 - (WK 1)	**Key Vocabulary**	**Homework**
how to evaluate the quality of my desk tidy.	Testing	Primary user feedback.

PRT Task 1

PRT Task 2

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.