The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 10 GCSE Design & Technology
Learning Programme 4

The LORIC skill focus for this LP is: INITIATIVE.
The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.

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.

What will I be learning about in this Learning Programme?

To understand that templates and jigs are used to manufacture accurately. To know the small-scale timber wastage processes. To know the tools/ equipment and processes used to manufacture polymer products in a workshop and commercially. To know timber and polymer addition and finishing processes. To know timber and polymer deforming and reforming processes. To know the 4 scales of production.

Where have I seen this learning before?

You will have developed your knowledge of tools and equipment throughout KS3. You will have worked with timber and polymer materials to make products in the design & technology workshop.

What could I use it for?

You will be able to apply your knowledge of materials and processes in your GCSE examination, as well as apply your understanding of the non-examined assessment when you begin your externally set NEA in June of Year 10.

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

In LP4.1, I will know: 09/03/26 - (WK 2)	Frayer Model Words	Homework
how products are manufactured to different scales of production (7.5a); how designers use templates and jigs to manufacture accurately (7.3aii).	Tolerances	Scales of production.
In LP4.2, I will know: 16/03/26 - (WK 1)	**Frayer Model Words**	**Homework**
which timber wastage processes can be used to manufacture the desk lamp in the workshop (7.2ai); my strengths and areas for development from my learning so far.	Wastage	Small scale timber wastage processes.
In LP4.3, I will know: 23/03/26 - (WK 2)	**Frayer Model Words**	**Homework**
which timber manufacturing processes are used for large scale production (7.5b); how to apply safe workshop practices to manufacture the desk lamp with accuracy and use my initiative to problem solve. Extended Task.	Router	Large scale production processes - timbers.
In LP4.4, I will know: 13/04/26 - (WK 1)	**Frayer Model Words**	**Homework**
how timbers can be joined and finished using a variety of processes (6.2a, 7.2aii); how to apply safe workshop practices to manufacture the desk lamp with accuracy, demonstrating gratitude towards the tools and equipment.	Adhesive	Timber joining and finishing methods.
In LP4.5, I will know: 20/04/26 - (WK 2)	**Frayer Model Words**	**Homework**
which manufacturing processes are used to deform and reform timbers (7;2); how to apply safe workshop practices to manufacture the desk lamp with accuracy.	Laminating	Timber steam bending and lamination.
In LP4.6, I will know: 27/04/26 - (WK 1)	**Frayer Model Words**	**Homework**
how polymers can be processed in the workshop (7.2a); how to apply safe workshop practices to manufacture the desk lamp with accuracy. Extended Task.	Thermoforming	Manufacturing with polymers in a workshop.
In LP4.7, I will know: 04/05/26 - (WK 2)	**Frayer Model Words**	**Homework**
which manufacturing processes are used for large scale production e.g. injection, blow moulding and extrusion (7.5b); how to finalise the manufacture of the desk lamp.	Extrusion	Large scale production processes - polymers.

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.technologystudent.com;
www.mr-dt.com;
www.bbc.co.uk/bitesize - OCR Design & Technology.

FFET Award Challenge for this Learning Programme:

Create revision resources e.g. flashcards to be used to prepare for the Year 10 mocks exams.