The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 8 Metals Pendant 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 metals; the impact of metals on the environment; the processes used to manufacture metal products; how to cut and finish a metal product to a high standard whilst applying workshop safety.

Where have I seen this learning before?

In year 7 you will have used these tools and equipment when working with timbers. You will have learnt about the source of timbers, how they are processed and their impact on the environment.

What could I use it for?

You can use metals to manufacture products in design & technology over your next 5 years; you will apply your knowledge of metals in the GCSE Design & Technology exam.

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
the source of metals; how metals are extracted and processed into workable forms; the environmental impact of extracting and processing metals.	Ore	How metals are extracted.
In LP2.2, I will know: 02/11/26 - (WK 1)	**Key Vocabulary**	**Homework**
the difference between ferrous and non-ferrous metals; the definition of an alloy and why alloys are made.	Ferrous	Environmental impact of metals.
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 metals are sand cast to manufacture products; how metals are bend and folded using a press. Extended Task.	Casting	Metal properties.
In LP2.4, I will know: 23/11/26 - (WK 2)	**Key Vocabulary**	**Homework**
how to communicate my design ideas for my aluminium pendant with annotations; how to mark out my design using a template.	Accuracy	Metal casting.
In LP2.5, I will know: 30/11/26 - (WK 1)	**Key Vocabulary**	**Homework**
how to cut aluminium safely using a coping saw; the difference between cross and draw filing; the different grades of wet and dry paper and how to use them to smooth the edges of my aluminium.	Burr	Product analysis of metal items.
In LP2.6, I will know: 07/12/26 - (WK 2)	**Key Vocabulary**	**Homework**
how to use the pillar drill to cut a hole into aluminium, securing with a machine vice; how to emboss a design into the aluminium using a hammer and embossing stamps. Extended Task.	Embossing	Embossing process.
In LP2.7, I will know: 14/12/26 - (WK 1)	**Key Vocabulary**	**Homework**
how to use the buffing machine safely to polish my aluminium; how to evaluate the quality of my work to identify strengths, weaknesses and areas for improvement.	Buffing	Using the buffing machine safely.

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:

Extend the jewellery range - create a sheet of interesting and unique design ideas for another item of jewellery (other than the pendant created in this LP). This could be matching bracelet, earrings, a ring or key ring.