Design Technology

A Level Product Design

Taster session
2025

Taster Session

https://www.youtube.com/watch?v=64Lm60gvCCk

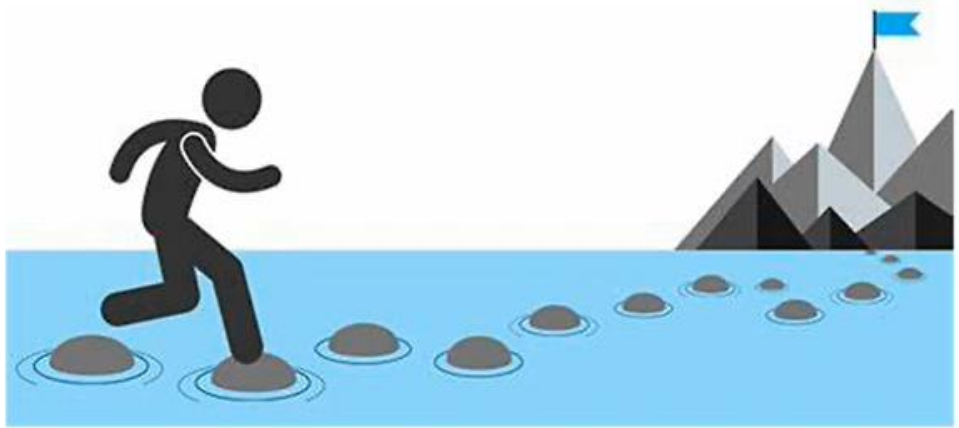
What am I?

“Good design is like a refrigerator—when it works, no one notices, but when it doesn’t, it sure stinks.” –Irene Au

https://www.youtube.com/watch?v=4lLSEDVSAp4

Where Can 'A' Level Design Technology Take You ?

It's your choice - select projects and design media to reflect where you want to go



Stepping stone to:

- Product Design
- Production / Industrial Engineering
- Fashion Design
- Infrastructure, Civil Engineering & Construction
- Architecture
- Electrical Engineering
- Mechanical Engineering
- Landscape Design
- Interior Design
- Advertising and Marketing
- Research Engineering
- Medical Appliances
- Systems Design
- Packaging Design
- Publishing, Film and Media
- Teaching
- Armed Forces
- Aerospace
- Automotive Design and Engineering
- Robotics

and so much more …… !!!

https://www.raeng.org.uk/

https://www.stem.org.uk/

https://www.vexrobotics.com/

Course Introduction

You will:

be encouraged to develop **intellectual curiosity** about the design and manufacture of products.

explore, **design**, **create** and **evaluate innovative solutions** in response to realistic design contexts

be encouraged to produce **Imaginative practical work**

develop **knowledge** and **understanding** of the core technical, designing and making principles for product design

World Changer

- What difficulties do people live with?
- Can we improve their lives?
- What do they need or want?

- Can things be redesigned to use less resources and energy?
- Are we able to develop a sustainable way of living?

Assessment

- **50% exam** with two papers (maths and science contribute 15%)
- **50% non-exam assessment** (NEA)
- The final NEA consists of a single design and make activity.
- Students are free to choose their design contexts and use media, materials and techniques that reflect what they would like to do after 'A' Levels.

Paper 1

What's assessed

Technical principles

How it's assessed

- Written exam: 2 hours and 30 minutes
- 120 marks
- 30% of A-level

Questions

Mixture of short answer and extended response.

Paper 2

What's assessed

Designing and making principles

How it's assessed

- Written exam: 1 hour and 30 minutes
- 80 marks
- 20% of A-level

Questions

Mixture of short answer and extended response questions.

Section A:

- Product Analysis: 30 marks
- Up to 6 short answer questions based on visual stimulus of product(s).

Section B:

- Commercial manufacture: 50 marks
- Mixture of short and extended response questions

Non-exam assessment (NEA)

What's assessed

Practical application of technical principles, designing and making principles.

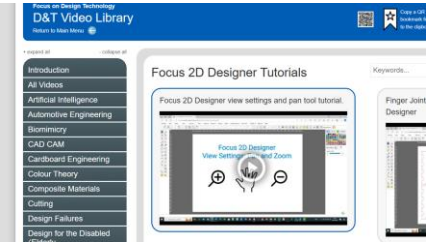
How it's assessed

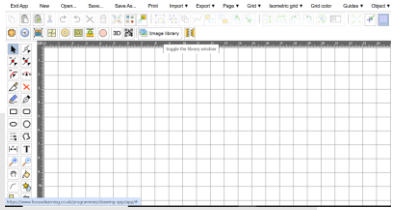
- Substantial design and make project
- 100 marks
- 50% of A-level

Evidence

Written or digital design portfolio and photographic evidence of final prototype.

TASTER DAY TASK:
Designing a mould for a metal jewellery piece and making the jewellery





Design Task https://www.youtube.com/watch?v=uO-44AbXF70

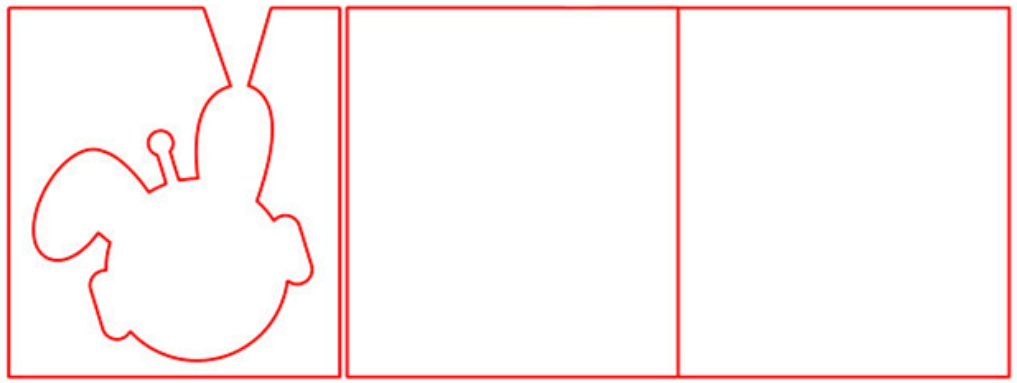
1. Design a simple shape that will be cut using the laser cutter. Use the Focus 2D software. https://www.youtube.com/watch?v=4ghTmUQrNHo

1. Share the design with Mr Netsereab and we will then cut pieces to be laser cut. You will assist with this.

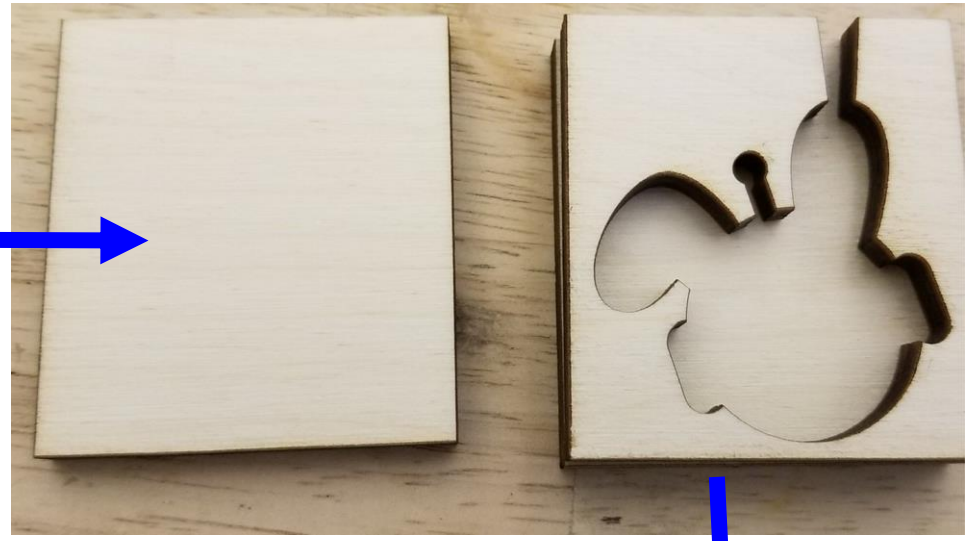
1. Use the cut outs to create the jewellery piece using pewter casting

https://www.youtube.com/watch?v=6DEfwUM0ths

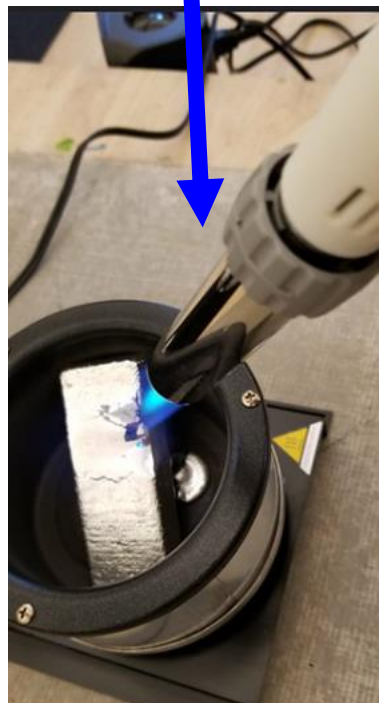
https://www.flcinnovation.org/?p=2492



2d CAD drawing



Laser cut



Pour pewter in mould and take apart mould once cooled