Design & Technology Learning Journey

CREATING BRILLIANT FUTURES

A-level product design or an equivalent course in the design sector

Level 3 courses in engineering , design or manufacturing industry

YEAR 11 D&T

- EXTERNAL EXAM
- NEA EVALUATION
- NEA MAKING
- NEA DEVELOPING
- NEA DESIGINING
- NEA CONTEXT
- SKETCHING /DESIGINING TECHNIQUES
- SUSTAINABLE DESIGN PROJECT
- MODEL MAKING
- PACKAGING / GRAPHICS

Students use their design brief, specification and customer feedback to evaluate their solution.

The final prototype is manufactured independently and documented in making diary.

Students conduct a range of testing, modeling, sketching and evaluation to develop solution to the design brief.

Students investigate the context of their choice to identify a problem, customer, design brief and write their specification.

Unit 5 covers one material in depth.

On June 1st in Year 10 AQA release the Contextual Challenges.

Students learn how to create initial ideas, develop them through modeling and then make their final product.

Unit 6 covers design strategy, communication techniques and the work of others.

Unit 4 covers forces, functionality, environmental issues and scales of production.

Unit 3 covers materials and their properties. The main categories are papers and boards, timbers, polymers, metals and textiles

Unit 2 covers energy, smart, modern and composite materials, systems and mechanisms.

Unit 1 covers Industry and enterprise, sustainability, industry, customers and design decisions.

YEAR 11 ENGINEERING

- SYNOPTIC PROJECT EVALUATING
- SYNOPTIC PROJECT MAKING/ TESTING
- SYNOPTIC PROJECT PLANNING/DESIGING
- EXTERNAL EXAM
- REVISION
- ENGINEERING MATERIALS & THEIR PROPERTIES
- HYDRAULIC EXCAVATOR
- TREBUCHET
- ENGINEERING DISCIPLINES & THE IMPACT ON SOCIETY

IN DECEMBER NCFE release the SYNOPTIC Challenges.

Mini synoptic project students working in groups of 4 max main focus model making, understanding concepts of pneumatics & hydraulics ,engineering

Students identify and independently select the most suitable materials and manufacturing process for a range of engineering products drawings

ENGINEERING V-CERT LEVEL 2

DESIGN & TECHNOLOGY GCSE

YEAR 10

- GRAPHICS THE POWER OF BRANDING
- NEW & EMERGING TECHNOLOGIES
- COMMUNICATING YOUR DESIGN IDEAS

Students explore manufacturing techniques that can be used on timbers

YEAR 9

- DESIGN & MAKE TASK WOODEN STORAGE UNIT

Students develop an understanding of forces on structures and how to test & evaluate a model

The focus for this unit is understanding the impact that materials and manufacturing processes can have on the environment

YEAR 8

- SUSTAINABILITY & OUR ENVIRONMENT
- INVESTIGATING MATERIALS

The focus for this unit is understanding Polymers and how to shape and form them.

Through a DMA, students are introduced to timbers. They learn about their categories, properties and stock form then how to cut, shape and finish them.

Learning is based around the basic techniques used for communicating ideas - Rendering, Isometric, Perspective, Crating.

YEAR 7

- A is for Aesthetics
- C is for Cost
- C is for Customer
- E is for Environment
- S is for Size
- S is for Safety
- F is for Function
- M is for Material