Technology and Construction Curriculum Overview

College

Apprenticeship

Pupils will sit 50% exam covering core D&T principles and specialist content

Revision for component 1

Revision for unit 1

Demonstrate knowledge on security risks within the construction industry and how to manage them

Evaluation and reflection of success criteria

Component 1 theoretical knowledge continued- Mock assessment

Unit 1 theoretical knowledge continued- Mock assessment on theory covered

Brick laying

Component 2 - practical and prototyping final product

Independently work on their NEA planning, designing, making and evaluating throughout the project

NEA Begins - Completion of Design sheets

Planning permission brownfield site and greenfield site guest speakers and visits

Sustainable construction methods

Life cycle planning and demolition

YEAR 11

prototyping

Mini NEA task

Specialist technical principles - Timber ,polymers and metals

Technical drawing

Component 2 - Brief to be launched and coursework portfolio Brief, Initial Thoughts, Client Needs and Wants and Initial Research

Numeracy in DT

Technologies and materials

Types of buildings and structures

Unit 3 submitted for moderation

Unit 3 - 3rd trade - plumbing practical launched and coursework portfolio

Understanding Health & Safety legislation in the UK and how it applies to e Construction Industry

Ability to identify hazards within the workplace / construction sites

Be able to calculate resources to for construction projects

Unit 3 - 2nd trade - Joinery practical launched and coursework portfolio

The sector

YEAR 10

GCSE Design & Technology

Level 2 Construction

CAD - Onshape

Mini NEA task

Core technical principles

Prepare pupils for the NEA using the iterative design process

Students will recap on knowledge gained at KS3 and explore new materials and technologies

Unit 3 - Assignment brief launched. 1st trade - Electrical practical launched and coursework portfolio

Evaluation and reflection of success criteria

production of a Memphis inspired clock

Knowledge of materials Papers and boards

Develop an understanding of processes using CAD/CAM

Access FM

Developing and researching materials and properties of timbers and metals

Evaluation and reflection of success criteria

Legislation and careers in Electrics and joinery

Evaluation and reflection of success criteria

production of a Catapult

YEAR 9

Exploring careers within the industry- Interior designer

Develop joinery skills using hand tools and learning how to achieve accurate outcomes

Develop an understanding of processes, materials and skills Electronic circuit

Gain knowledge of mechanisms and motion

Production plan

Memphis clock project - researching design movement

Physics - motion, forces, gravity to consider when designing

Roomsketcher software interior design

Exploring interior design principles and how this might apply to the chosen project

Developing on the basic CAD to design from year 7

Develop understanding of textiles

Developing modelling skills, taking concept ideas and created scaled models from a range of materials

Basic Sketching principles developed to showcase design ideas - One and Two point perspective

Developing knowledge of architecture, building design, style and how this impacts the design

YEAR 8

Use a range of tools and equipment to perform practical tasks- cushion

Generate ideas, communicate them using a range of methods

Primary and secondary research and moodboards

Legislation and RIBA

Understand how to complete a design brief

Exploring product finishes

Evaluation and reflection of success criteria

Investigating & Analysing products

Exploring materials and properties of Polymers

Developing practical skills - Vacuum forming

Use a range of tools and equipment to perform practical tasks- night lamp

Developing on the basic CAD to design

develop knowledge of designer and how it can influence us as designers

Investigating how electronic control systems work . Developing skills in soldering

Evolution of design

Basic CAD skills- Designing

Basic CAM skills- production - Laser cutting

YEAR 7

Sustainability - Looking at eco-friendly design and materials- Reduce, Reuse, Recycle.

Basic sketching techniques

Exploring materials and properties of timbers

PRIMARY

Evaluation and reflection of success criteria

Understanding materials - origin, properties, use

Use a range of tools and equipment to perform practical skills- Junkyard robots

Generate ideas, model and communicate them using a range of methods

Exploring careers within the industry

Health and Safety

"Construction is a matter of optimism; it's a matter of facing the future with confidence."