Design & Technology Curriculum Map

D&T offers you a curriculum which will engage and enthuse a passion for the subject. Giving you the opportunity to explore practical activities which will enable you to master the skills and secure your knowledge.

D&T provides the subject specific skills and knowledge as a platform for you to take your next steps, from KS3 to KS4, then onto a professional career within the Creative sector or further education.

Year 7 — **Remember – Understand – Apply – Analyse – Evaluate - Appraise** — Year 11

GCSE Design and Technology will develop you skills in working with timber, and your knowledge of Design and Technology across a range of materials including textiles, electronics, paper and boards, but especially timber. You will explore iterative designed concepts, review a range of past designs and designers, develop your drawing skills and find out about new and emerging technologies such as Laser cutting, 3D printing and smart materials.

YEAR 7

Life Cycle Analysis
User centered design
Processes
Timber properties and sources
Finished and uses
Smart Materials
Systems
Industry& enterprise
Mechanical devices
Specialist Exam Content
Core Exam Content
Exam & Post – 16 Destination
Manufacture skills
Tools
Forming
Material categories
Sustainability
Renewable Energy
Energy
None Examined Assessment
Product testing and analysis
Assessment (Evaluation)

YEAR 11

ACCESS FM
Product evaluation
Assembly
CAM
CAD design
Related product analysis
ACCESS FM
Product Evaluation
Design Brief
None Examined Assessment (Design & Manufacture)
None Examined Assessment (Research)
Risk assessment
Iterative Design
Design Ideas drawing
Product Specification
Research Analysis
Market Research
ACCESS FM
Product evaluation
Design Principles
Design modifications
CAD
Orthographic
Advantages/disadvantages of CAD/CAM
Tolerances

YEAR 10

Hand tools
Design strategies
Cams
Automata
Testing
Investigating
Energy
Designing & Making
Mechanical devices
Solar Investigation
Specifications
Working with materials
User centered design
Linkages
Lego Mechanisms
Systems
Laser cutting
3D Printing
Types of Finish
Sources & origins
Fixings
Specification
Client needs
Product analysis
Design Brief
Planning
Enamelling
Sublimation printing
Casting
Risk Assessment
Metals
Vacuum Forming & Drape Forming
Timbers
Storage Design
Jewellery Design
Manufacture
Wasting techniques
Specialist tools
Machine tools
Problem solving
Card modelling
Product Evaluation
Investigating opportunities
Research
CAD/CAM
Mood boards
Environmental impact
The work of others
Modelling

YEAR 9

2 Point Perspective
Materials
Machinery set-up
Aluminum
Creative design
Joining
Existing products
ACCESSFM
Costings
Drilling
Timbers
Exploded views
Electronics
Modelling
3D
Presentations
Sketching/ drawing
TinkerCAD
Design thinking – child's game
Infinity Mirror
Team working
Prototyping
Technical specifications
User testing

YEAR 8

Client Profile
Design ideas
3D printing
Graphic design
Research
Laser cutting
2D Design
CAD
Health & safety
Production aids
Joining
Polymers
Simple circuits
Sketching
Modelling
Annotation
Communication & presentation
Materials & properties
Product review
Tools
Timbers
Marking out
Crating
Evaluation
Isometric
2D to 3D
Lighting project

Design • Make • Evaluate • Knowledge