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 your skills in working with timbers & polymers, and your knowledge of Design and Technology across a range of materials including textiles, electronics. 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 CAD, CAM and smart materials.

YEAR 11

None Examined Assessment (Evaluation)

AO3: Evaluate & Test: Gain feedback throughout your project, and test your final product – have you met your brief?

Life Cycle Analysis

Specialist Exam Content

Core content and specialist knowledge: Revise and practice exam papers in preparation for your final exam in DT.

Product modifications

Core Exam Content

Upcycling

Standard Components

2 Point Perspective

Exam & Post – 16 Destination

Manufacture skills

Tools

Forming

Risk Assessment

Isometric Drawing

Sustainability

Renewable Energy

Design Math

Non Examined Assessment (Manufacture)

AO2: Realise Design ideas: Manufacture your product using skills and processes used throughout your DT journey.

Assembly

Risk assessment

AO1: Specification & Brief: Clarify the needs and wants of the project writing your own brief & specification

AO2: Generate & Develop Design Ideas: Develop your sketches and communicate ideas. Developing them using modeling techniques

Iterative Design

Product Specification

Non Examined Assessment Identify, Investigate, specify

Initial Concept Sketches: What ideas do you have already? Can you visualize them?

Mood boards

Investigate the design possibilities: What is the design context? What research can you carry out to gather ideas?

AO1:Research & investigation Follow on from your summer task to further understand the context. Client interviews, product, site analysis and designer research.

Market Research

Iterative design process

The work of others

Sustainability

Renewable Energy

Energy Sources

YEAR 10

Materials, tools and processesCORE desk cube, spatula, shorts, hat, skills

wasting/ addition / finishing

Marking out

Accuracy of finish

Smart & Modern materials

Metals

woods

polymers

textiles

Develop design communication

SPECIALIST PRINCIPLES/ DESIGN PRINCIPLES TRAVEL GAME -

Scale of production

Machine tools

Wasting techniques

Hand tools

Living Hinge

Fixings

CAD/ CAM Laser cutting

Forming materials

Designing Principles

Modeling/ prototypes

Creative development Iterative process, mini NEA

User centered

Problem solving

Research analysis

FOOD DIETARY REQUIREMENTS

An Indian inspired health meal for 4, which will test all cooking skills

Sustainable Farming & fishing

Food Provenance

Foods from other cultures

Food Safety

Nutrition: labeling

Work in more depth on projects, honing your practical skills, improving your resilience & problem solving whilst developing independence in the workshop.

After choosing options in year 9, focus your studies in GCSE DT in years 10 -11, through exciting, real life projects. Deepen your understanding of DT in the world around us whilst developing products that help various user needs.

YEAR 9

TEXTILES Pencil case

Specification

Flowchart Planning

Existing Products. research

Design Brief

Manufacturing in fabrics

Decorative Techniques

Types of fabric

RM Anglepoise Lamp- woods/ CAD/ CAM

forming materials

Soldering

CASTING

CAD/ CAM

Accuracy; jigs and templates

Joining materials

PETE

The work of others

Design: Creative sketching

Level of production

Problem solving

FOOD HEALTHY EATING

Food Safety

Nutrition

Sensory analysis and evaluation

Extend food repertoire using staple foods

Experience a wide range of fun and exciting projects that teach you valuable skills in the workshop, and food room, understanding different materials, ingredients and how they work.

YEAR 8

RESISTANT MATERIALS Pewter casting CAD/CAM

PACKAGING

Electronics

PPE

CAD/CAM

Pewter casting

Plastic forming PP

Product Evaluation

TEXTILES BAG

Life cycle analysis

User Centered Brief

Design; decoration using a stimulus

Decorative Techniques

Categories of materials

Specification

Design communication; working drawings, CAD

The Forest Stewardship Council

The 6 R's

Flowchart Planning

Marking out

Manufacturing fabrics

Star Diagram EBI/WWW

FOOD SKILLS

Sensory analysis

Basic Healthy Eating

Cooking Skills

Knife Skills

PPE

Flowchart Planning

Design communication; creative design ideas

Health and safety

YEAR 7

TEXTILES CRITTERS

Manufacturing in fabrics

Sources of fabrics; natural / synthetic

RM -Trinket Box Polymers

Shaping materials

Marking out

Design communication; 3D sketching & annotating

Health and safety

Joining woods/ plastics

Tools & Equipment

Sources of materials

PETE

Design • Knowledge • Manufacture • Evaluate