

Key Stage 3 Learning Journey

Design and Technology

GCSE DESIGN & TECHNOLOGY

How it's assessed
Written exam: 2 hours
100 marks
50% of GCSE

Non-exam assessment (NEA): 30-35 hours approx
100 marks
50% of GCSE

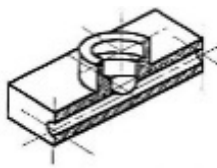
FABRICS
PAPER & BOARDS
POLYMERS

PAPER & BOARDS
METALS
POLYMERS

TIMBERS
METALS
POLYMERS

KS4

After choosing options in year 10, 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 needs and users.



Stock Forms:
Key manufacturing and processes involved to convert raw materials into workable forms.

Materials:
Timbers, polymers and paper and boards, source of origin.

LCA:
Life cycle assessment of the key materials and sustainability factors.



GCSE structure:
Preparing pupils for GCSE curriculum.

Knowledge:
Exploring more in depth computing knowledge to prepare pupils for GCSE curriculum.

Coding:
More advanced coding using Python.

Make:
Continuing to refine skills in order to demonstrate confidence when coding or using computer systems.

Computing PROJECTS

GCSE exam theory content.

Evaluate:
What skills have you developed? Test your product and consider how you would improve it.

Make:
Use a wide range of skills, materials and joints. To develop high quality craftsmanship Memory game. Use CAD and 2D Design.

Design:
Practicing Isometric Projection and rendering skills. Orthographic projection.

Design:
Designing for children. How do we make a product fun, educational and safe?

Materials:
Polymers Classification. What is a polymer? Electronics What is a circuit?

NEA night light Game

Design:
Use materials and industry techniques to produce a series of designs, showing development from concept to final product.



Evaluate:
Sustainability impacting design. Product evaluation.



Knowledge:
What are the implications of not following online safety. How to begin using coding.

Design:
Adapting code using various software including Excel, Scratch and Microbit.



Evaluate:
How to use computing in real world scenarios.

Materials:
Develop a knowledge of sustainability within the fashion industry. Source pre-loved fabrics to be used for project.

Make:
Using sewing machine to follow instructions and construct a cushion.

Computing PROJECTS

Evaluate:
Does your final image combine a range of technical drawing skills?



Make:
Technical drawing skills, using set squares, drawing boards, rules, compasses and fine liner pens.

Design:
Designing for a fantasy city using single point and two pint perspective.

Graphics:
Graphic technical drawing, Isometric, oblique and orthographic

Cushion design PROJECT



Make:
Use laser cutter to create detailed lid for the trinket box. Use CAD with 2D Design.



Evaluate:
Does your product work? ACCESS FM. How can you fix problems?

Knowledge:
Understanding of Kente cloth and Adinkra printing. Knowledge of where fabrics come and how they are made.

Design:
Create your own printing pattern, woven pattern.

Make:
Beginning using looms to make own weave. Learning sewing skills.

Evaluate:
How successful was my product? Did they meet the brief?

Design:
Use industry methods to produce a range of designs suited to the brief.

Materials:
An introduction to polymers and using forming.

Textile weaving PROJECTS

Trinket box lid PROJECT

Evaluate:
What makes a good joint? How can you improve / modify your design?

Theory:
Understand a range of different joints, and be able to select appropriate tools to make them.

Make:
Wood joints Use of hand tools and machines

Materials:
Wood classification. Where does timber come from? Sustainability, how to design considering future generations?

Trinket Box PROJECT

Introduction to the workshop:
Health and Safety

YEAR 7

KS3

YEAR 9 ROTATION
Design and Technology
Food Nutrition
Computing

Work in more depth on projects, linking to the GCSE curriculum. Pupils carry out KS4 theory knowledge alongside mini NEA project to prepare them for GCSE.

KEEP CALM
RETRIEVAL

MAKES
PERMANENT

YEAR 8 ROTATION
Design and Technology
Food Nutrition
Textiles
Computing

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

YEAR 7 ROTATION
Design and Technology
Food Nutrition
Textiles

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

TOP TIPS

Aesthetics Cost Customer Environment Safety Size Function Material

