

# DESIGN TECHNOLOGY

## COLLEGE

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

**FINAL GCSE EXAM**

**EXAM REVISION**

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

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

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

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

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

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

**YEAR 11**

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

**Materials:** Working with hardwoods and specialist timbers. Working properties and recognizing materials.

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 needs and users.

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

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

**KS3**

**NEA COURSEWORK**

**Materials / Make:** Use materials you have not combined before such as concrete, acrylic and timber to develop a unique stylized product.

**Design:** Reference key design movements top to develop a stylish functional product.

**Make:** Use a wide range of tools and processes to produce your final product. You decide!

**Testing / Modelling:** Use various testing and modelling methods to develop your product

**Materials:** What materials will be appropriate for your product? What materials are sustainable?

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

**GCSE NEA CONTEXTS**

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

**Make:** Addition processes & wood joints. Using skills to develop high quality craftsmanship products.

**Design:** Using removal techniques to develop an organic shaped box based on nature & biomimicry.

**Make:** Develop your design through iterative processes and modelling, testing & evaluating before making a final product.

**Design:** Focus your idea on the work of famous designers, use architecture or product design as inspiration.

**Make:** Use a wide range of skills, materials and processes to develop your unique product.

**WOODEN-Pencil box**

**Desk organiser**

**TASK Lighting**

**YEAR 10**

**Amplifier**

**Elmer -Phone Holder Desk tidy**

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

**Make:** Can you make an accurate product using machines and tools independently?

**Testing / Modelling:** Will my product work? What can I do to improve it?

**Design:** Isometric projection, CAD development

**Cams / motions & movements:** What do cams do? How do they work?

**Materials:** Timbers - hardwoods and softwoods, why do we use them?

**YEAR 9**

**Materials:** Working with acrylics and circuitry to develop a working night light.

**Design:** Designing for a user and client. Develop design ideas using 2D CAD

**Make:** Develop independence in CAD using 2D design software to make complex design ideas. Then laser cutting them

**Evaluate:** At each stage of making, how can you improve your product? Would you change anything?

**MECHANICAL TOY**

**Colour Changing NIGHT LIGHT PROJECT**

**YEAR 8**

**Make**

**Make:Shaping polymer**

**Materials smart materials** Understanding the differences between modern, composite and smart materials.

**Materials: Types of polymer**

**Design:** Iterative Design process

**YEAR 7**

**workshop: Health and Safety**

**Computer aided manufacturing**

**Make:** Students will working in groups to design pages using mechanism to form a popup book.



**Phone Holder**

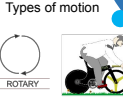
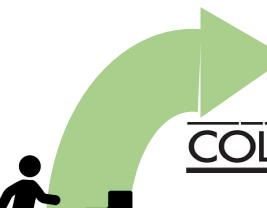
**Evaluate:** What makes a good wooden product? How can you improve your skills?

**Printing**

**Types of paper & Board**

**Materials: How is Paper made**

**Pop-up mechanisms**



# DESIGN TECHNOLOGY

## COLLEGE



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

**FINAL GCSE EXAM**

**EXAM REVISION**

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

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

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

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

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

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

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



**Design:** Designing for a client

**Materials & techniques:**  
What materials/techniques will be appropriate for your product? What materials are sustainable?

**Testing / Modelling:**  
Use various testing and modelling methods to develop your product

**Make:**  
Use a wide range of tools and processes to produce your final product. You decide!

**Design:**  
Reference key design movements to develop a stylish functional product.

**Materials / Make:**  
Use materials and techniques to create your final product

**TEXTILES PROJECT 2**

**GCSE NEA CONTEXTS**

**TEXTILES PROJECT 1**

**KS4**

**CAD/CAM:**  
Developing knowledge on CAD/CAM processes for testing

**Decorative technique 8:**  
Batik and fabric dyes technique

**Cultural capital:**  
HL - African/Indian cultural research

**Decorative technique 7:**  
Trapping technique

Projects are intended to be exciting, real life projects. Deepen your understanding of DT in the world around us whilst developing skills and techniques to improve the aesthetics of the product

**YEAR 10**

**Assessment:**  
End of topic test

**Evaluate:**  
How can students develop skills to make a quality pencil roll?

**HL Eco fashion research:**  
Research task

**Make:**  
Final product creation  
Top hem, 15cm line of stitching & trapping patch pocket

**Design specification:**  
Writing a successful DS related to research

**Evaluate:**  
How can students develop skills to make a quality pencil roll?

**Assessment:**  
End of topic test

**Design brief:**  
Working to a design brief and designing for a client

**Knowledge:**  
Threading the sewing machine bobbin

**Make:**  
Final product creation  
Applique and hand embroidery

**Make:**  
Final product creation  
Stitching the final product

**Evaluate:**  
How can students develop skills to make a quality pencil roll?

**Assessment:**  
End of topic test

**YEAR 9**

**DAY OF THE DEAD CUSHION COVER**

**Assessment:**  
Mid topic test

**Decorative technique 5:**  
Hand embroidery techniques (x2)  
Chain & blanket stitch

**HL fabric structures:**  
Developed x4 different fabric construction research task

**Decorative technique 4:**  
Block printing

**Cultural capital:**  
HL - Day of the Dead research

**Design brief:**  
Working to a design brief and designing for a client

**Decorative technique 6:**  
Applique sugar skulls

HL - Applique research



**Decorative technique 3:**  
Machine embroidery

**Cultural capital:**  
Pop Art research

**HL fabric structures:**  
x4 different fabric construction research task

**Make:**  
Final product creation  
Pinning interior and exterior fabrics  
Separate into thirds

**Make:**  
Final product creation  
Applique Pop Art decoration

**Make:**  
Final product creation  
Creating the seams and compartments

**Product analysis:**  
Looking at existing products ACCESSFM

**Assessment:**  
End of topic test

**Evaluate:**  
How can students develop skills to make a quality pencil roll?

**Knowledge:**  
Threading the sewing machine top thread

**Assessment:**  
Mid topic test

**POP ART PENCIL ROLL**

**Materials:**  
Natural fibres - Calico exterior  
Synthetic fibres - polycotton interior  
Felt - Pop Art symbols



**Design brief:**  
Working to a design brief and designing for a client

**Decorative technique 1:**  
Tie Dye

HL - Tie dye factsheet



**Introduction to the workshop:**  
Health and Safety

**Decorative technique 2:**  
Hand embroidery techniques (x2)  
Running & Back stitch

**Machine driving test**

**Machine skills:**  
Driving test practice

Sewing machine driving test

**Client profile:**  
Who are you designing for and why?



**YEAR 8**

Work in more depth on projects, honing your practical skills, improving your resilience & problem solving whilst developing independence with skills and techniques

**YEAR 7**

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

**KS3**