

The background of the entire image is a close-up, high-resolution photograph of a wood grain. The grain patterns are intricate, showing concentric and wavy lines in various shades of brown, from light tan to dark chocolate and near-black tones. The texture is organic and detailed.

DESIGN AND TECHNOLOGY TIMBER

GCSE

Why Design and Technology?

GCSE Design and Technology encourages you to be inventive and prepared to take design risks. You explore the creative, engineering and manufacturing industries, as well as the importance of high-quality technology and design.



IN GCSE DESIGN AND TECHNOLOGY, YOU WILL:



GET TO CREATE YOUR OWN PRODUCT, DESIGNING A SOLUTION TO AN ISSUE.



GET TO LEARN ABOUT AND WORK WITH TOOLS AND MACHINES.



USE GRAPHICS AND OTHER DIGITAL DESIGN METHODS TO COMMUNICATE YOUR IDEAS.



DEVELOP YOUR TECHNICAL DRAWING SKILLS.



DEVELOP YOUR DECISION MAKING, ANALYTICAL AND RESEARCH SKILLS.



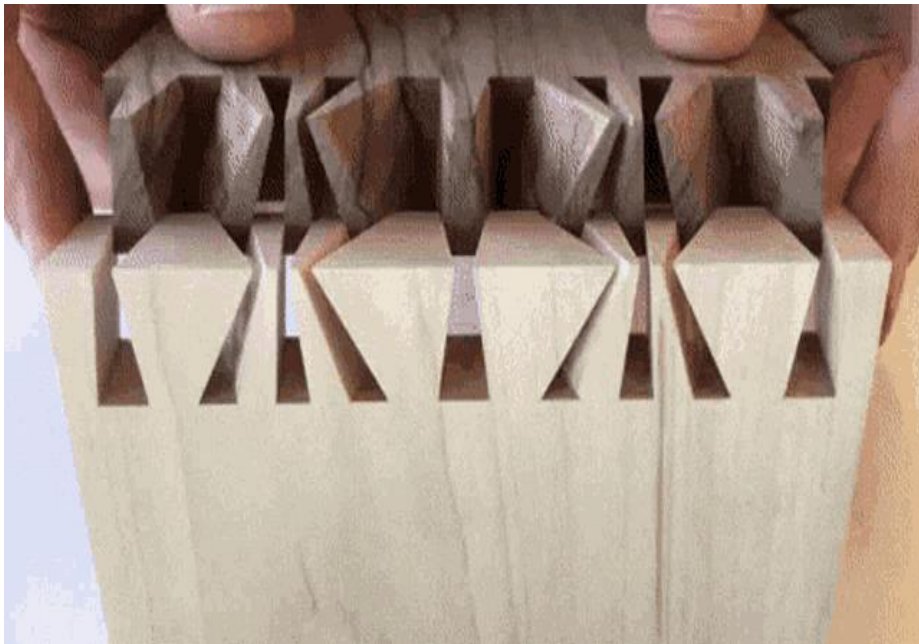
GAIN INSIGHT INTO SECTORS SUCH AS MANUFACTURING AND ENGINEERING.



The Course Content

50% written exam- 2 hours

50% NEA (coursework)- written and practical.



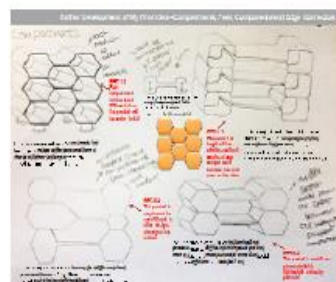
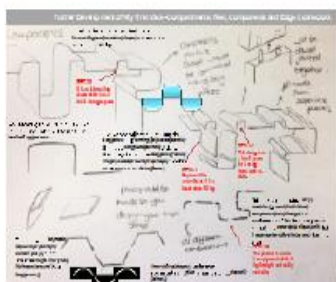
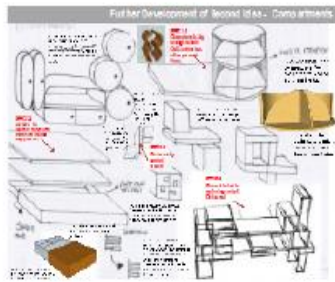
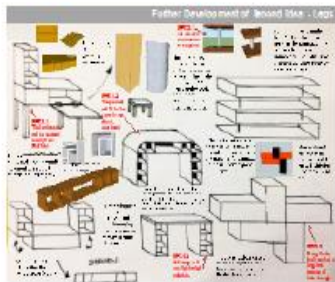
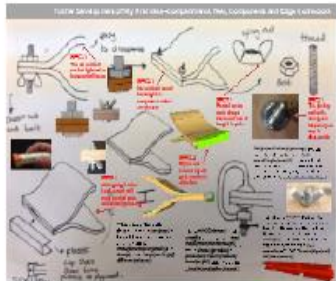
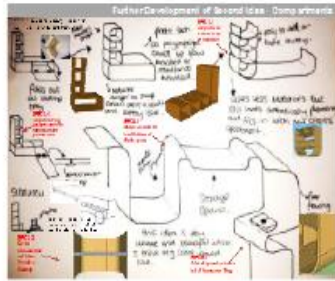
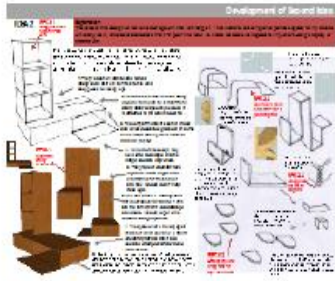
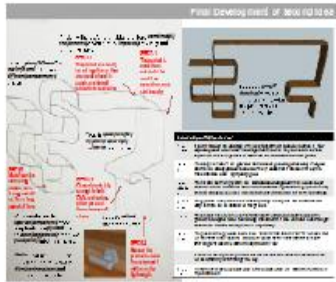
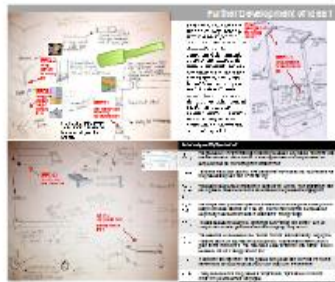
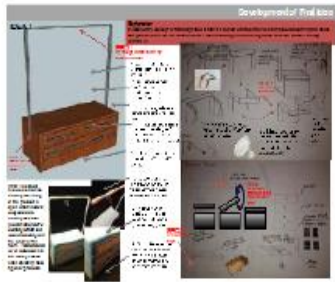
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|---|---|---|
| <p>Principles of design and technology</p> <p>50%</p> | <p>Written exam</p> <p>2 hours</p> | <p>Analyse existing products. Demonstrate applied mathematical skills.</p> <p>Demonstrate and apply their in-depth technical knowledge of working with materials, systems and manufacturing processes and techniques.</p> |
| <p>Iterative design challenge</p> <p>50%</p> | <p>NEA- Non exam assessment</p> <p>Approx. 40 hours</p> | <p>Explore- analyse and research a given brief to identify the needs of the user.</p> <p>Create- design and create a solution to those needs.</p> <p>Evaluate- evaluations of whether the needs have been met.</p> |

Essential skills to achieve in D&T.

- Excellent creative thinking- able to design creative solutions to problems.
- Good maths skills- essential for both practical work and exam/theory work.
- Research, planning and analytical skills.
- Interest in the subject- interest in the theory of Design and Technology e.g. pros and cons of materials, new and emerging technologies and opportunities and constraints that influence design and making.
- Being independent, self motivated and managing your workload to meet deadlines.



Example NEA Project



Bike bag ^ Bike SECURITY



Example Exam Questions

1 Fig. 1 shows images of an adjustable table lamp.

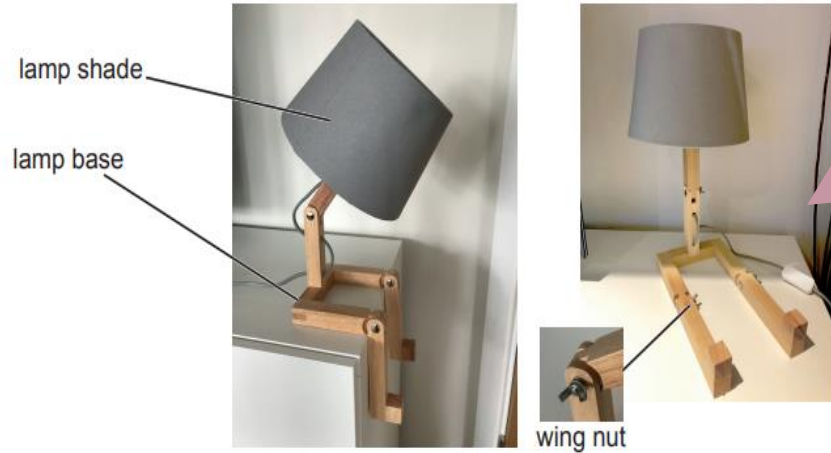


Fig. 1

Analysing products and their designs.

(a) The lamp base is made from a hardwood.

(i) Name a hardwood.

..... [1]

(ii) Give **two** characteristic properties of hardwood that make it suitable for the lamp base.

1

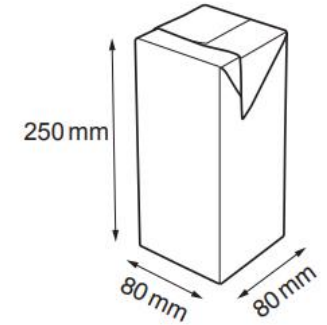
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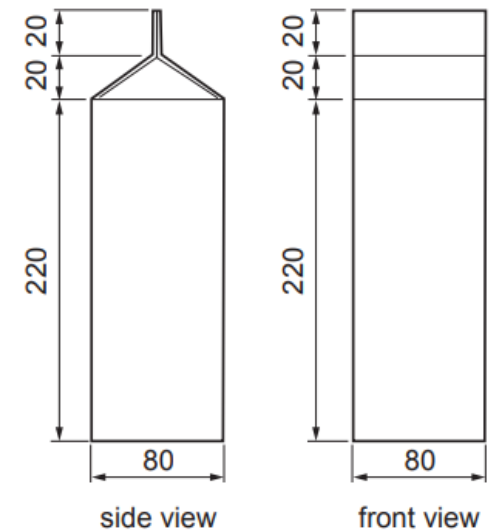
[2]

(b) Fig. 2.3 shows another fruit juice carton that is made by the manufacturer.



2 A manufacturer makes three different designs of fruit juice cartons from card.

(a) Fig. 2.1 shows the side and front view of one carton. Dimensions are given in millimetres (mm).



Math based questions working out the area/sketching dimensions.

**Join
Design
and
Technology**

