

GCSE Design and Technology Product Design

Well Done: Now for the final exam.

NEA Portfolio 20 sheets A3 + prototype



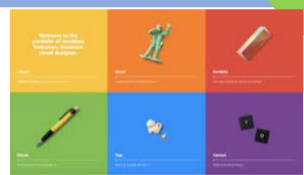
Year 11 Mock Exam

Demonstrate and apply knowledge: The student will independently work through the stages of the non-examination assessment. The assessment covers all 6 sections that have been taught in the course and gives students an opportunity to demonstrate their level of skill and understanding. The internal assessment is graded out of 100 and counts as 50% of the total course marks. A separate PowerPoint is available that shows what needs to be on every slide of the NEA as well as producing a completed prototype for their designed idea.

Year 11 Mock Exam

NEA assessment of design ideas.

Demonstrate skills and techniques: Practical Activity – NEA prototype.



Demonstrate and apply knowledge: Approaches to design and carbon footprint.

Demonstrate and apply knowledge: Achieving quality.

Demonstrate and apply knowledge: Types of research and client analysis.

Demonstrate and apply knowledge: Design Brief and specification.

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Year 10 Mock Exam

NEA Context

Demonstrate skills and techniques: Practical Activity – Mini practice practical from NEA

Mini Assessment Focused exam questions.

Demonstrate and apply knowledge and techniques: Ergonomics, continuous improvement and ICT in design.

Demonstrate and apply knowledge: Sources of resistant materials.



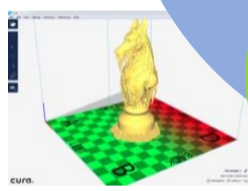
Demonstrate and apply knowledge: Sustainability 6 R's



Demonstrate and apply knowledge: Materials and properties- card, timber, metals and polymers

Mini Assessment Focused exam questions

Demonstrate skills and techniques: CAD / CAM Activity – 3D design and prototyping, solidworks, tinkercad, sketchup



Mini Assessment Focused exam questions.

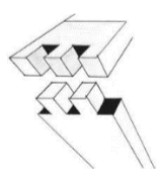
Demonstrate and apply knowledge: Smart materials, textiles, scales of production.

Demonstrate and apply knowledge: Mini practice context NEA.

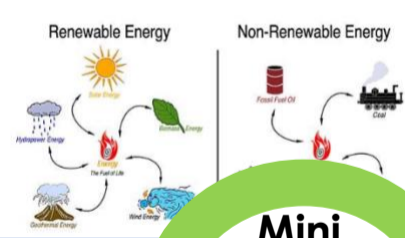
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Demonstrate and apply knowledge: Presenting Information – development of ideas/CAD development.

Demonstrate and apply knowledge: Construction ideas and joining materials.



Demonstrate and apply knowledge: Types of energy and renewable energy production.

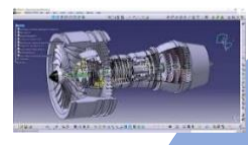


Mini Assessment Focused examination questions.

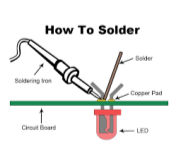
Demonstrate and apply knowledge and techniques: Developing prototypes – portable wind powered ideas.

Demonstrate skills and techniques: Practical Activity – circuit construction and health and safety when soldering.

Demonstrate skills and techniques: Focused practical activity, plastic memory of thermoplastics.



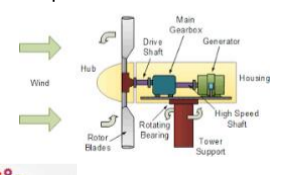
Demonstrate and apply knowledge: Soldering, components, circuit board design and production.



Mini Assessment Focused examination questions

Demonstrate and apply knowledge: Computer aided design and manufacture

Demonstrate and apply knowledge: Designers and designing. Investigate what makes a good design.



Health and safety

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Demonstrate skills and techniques: Practical Activity – Lighting design/prototyping



Demonstrate and apply knowledge: Designing for individuals and working with materials and tools/equipment.

Demonstrate and apply knowledge: Researching Information – analysis of products, design brief and specification.



Course expectations, requirements & requirements of the course assessments