

Design and Technology Learning Journey

Paper 1 (External)
What's assessed?
• Core technical principles
• Specialist technical principles
• Designing and making principles

Term 3 – GCSE NEA Coursework & Exam Revision:
Section D: Developing design ideas
Section E: Realising design ideas
Term 4 – GCSE NEA Coursework & Exam Revision:
Section E: Realising design ideas
Section F: Analysing & evaluating

- new and emerging technologies
- energy generation and storage
- developments in new materials
- systems approach to designing
- mechanical devices
- materials and their working properties.

Character strengths

Cross Curricular Links

Knowledge

Subject Specific Skills

Confidence
Motivation
Self-discipline
Curiosity

Exam Assessment

In addition:
• At least 15% of the exam will assess maths
• At least 10% of the exam will assess science.
How it's assessed
• Written exam: 2 hours
• 100 marks
• 50% of GCSE

What's assessed?
Practical application of:
• Core technical principles
• Specialist technical principles
• Designing and making principles
• Non-exam assessment (NEA): 30–35 hours approx
• 100 marks
• 50% of GCSE

Subject Knowledge

Science
Different forms of Energy



Non-Exam Assessment (NEA)

Supporting Charities

Term 1 – GCSE NEA Coursework & Exam Revision:
Section B: Producing a design brief & specification
Section C: Generating design ideas
Term 2 – GCSE NEA Coursework & Exam Revision:
Section C: Generating design ideas
Section D: Developing design ideas

11

SUBJECT KNOWLEDGE

One-Point Perspective

Two-Point Perspective

Gumball NEA Sample

Isometric

Non-Exam Assessment (NEA)

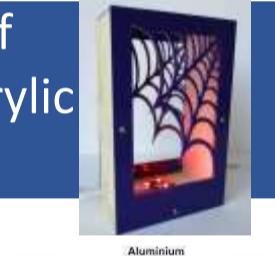
Exam Assessment Mock

CAD



10

Properties of Pine and Acrylic



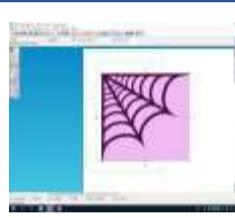
Science
Properties of materials

Joining Acrylic and Pine



Art – One / Two Point Perspective

Renewable and Non-Renewable Resources



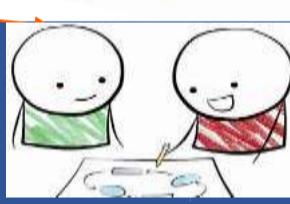
How to program the laser cutter using 2D techsoft

Research Techsoft

9

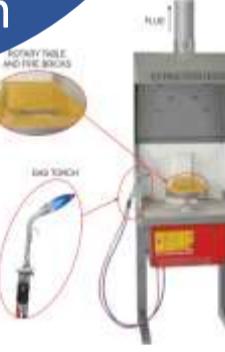
Metal Properties

Design to a Specification



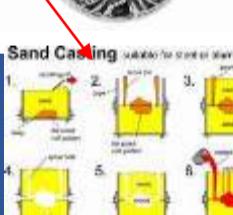
Peer Assessment

Brazing Pewter Hearth

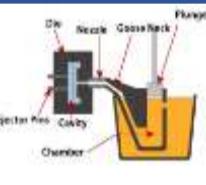


Client

Develop product a Specification



Sand Casting Die Casting



Baseline Test

8

Health and Safety Design

Question: Why type of information is more reliable primary or secondary? Explain your answer

Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Confidence shown during peer assessment



Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?



SAFETY FIRST

Science
Properties of materials

Question: How to use the pillar drill.
Sander and Scroll saws.

Question: Why type of information is more reliable primary or secondary? Explain your answer

Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Confidence shown during peer assessment

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

Properties of Woods

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

Specification Existing Products

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

Baseline Test ACCESS FM

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

Art – CAD

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

Art – Orthographic Drawing

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

Art – Isometric Drawing

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

PROUD

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

ACCESS FM

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?

Resilience designs will not be perfect first time

Question: How to identify different types of wood?
Classification of woods into Hardwoods, Softwoods and Man-made.



Question:
How did you make your clock?
What did you like?
What would you improve?
How could you test your work?

Practical Evaluation

Question:
Why do you have to learn how to work for a client?
What do you do if you don't agree?