

# Design and Technology Learning Journey

Character strengths

Cross Curricular Links

Knowledge

Subject Specific Skills

Confidence  
Motivation  
Self-discipline  
Curiosity

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Non-Exam Assessment (NEA)

Supporting Charities

Subject Knowledge

Exam Assessment

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.

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

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

Science  
Different forms of  
Energy



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

SUBJECT KNOWLEDGE

Gumball NEA Sample

Non-Exam Assessment (NEA)

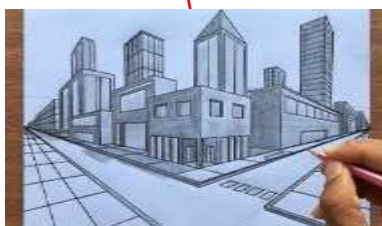
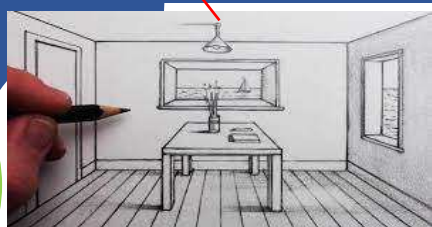
Exam Assessment Mock



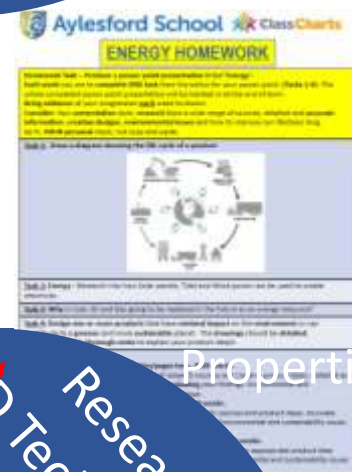
One-Point Perspective

Two-Point Perspective

Art – One / Two Point Perspective



How to program the laser cutter using 2D techsoft



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Properties of Pine and Acrylic

Joining Acrylic and Pine

Renewable and Non-Renewable Resources

2D Techsoft

Research

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Three different Year 8 Homework Projects

Science Properties of materials



Which joining method is suitable for each material.

Confidence  
Motivation  
Self-discipline  
Curiosity

Science Properties of materials



Maths Measurements

Design to a Specification

Peer Assessment

Pewter

Brazing Hearth



Metal Properties

Client

Question: How to identify different types of Metals?  
Classification of Metals into Ferrous and Non Ferrous.

Single and two part casting



Open-mindedness

Question: How do you meet the requirements of your client?  
What would you improve?  
What would your client improve?  
Test your work and record the results.

Develop product a Specification

Sand Casting Die Casting

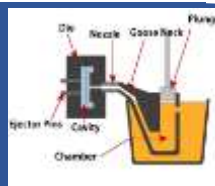
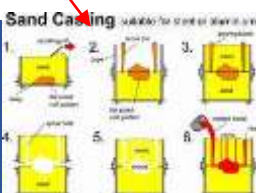
Baseline Test

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

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

Science Properties of materials



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

Classification of Materials

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 looking and Pros and Cons

Science Properties of materials

Question: What's are the most important features of a clock? What research is need?

Properties of Woods

Specification Existing Products

Baseline Test ACCESS FM

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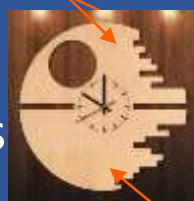
Health and Safety Design

SAFETY FIRST

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



Art – CAD



Art – Orthographic Drawing

Pen, Ruler for tables or titles, Organised – keep your work neat & label everything clearly, Use the right tool – pencil for drawings and diagrams etc

Resilience designs will not be perfect first time

Level UP

Art – Isometric Drawing



Courage  
Curiosity  
Respect

Resilience  
Self-discipline  
Curiosity

French Bastille day 14 July All Years



Three different Year 7 Homework Projects



Confidence, Self discipline While using machines in the workshop.

Aesthetics  
Cost  
Customer  
Environment  
Safety  
Size  
Function  
Materials