Design and Technology Learning Journey

Character strengths
Cross Curricular Links
Knowledge
Subject Specific Skills

Maths
Algebra
Pythagoras theorem
Area of different shapes

The supervised assessment period is a maximum of 12 hours and can be arranged over a number of sessions. During the supervised assessment period, learners will be given a set task that will assess their ability to produce designs to meet client requirements. Pearson sets and marks the task.

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Progression to next stage of learning:
• construction project technician • site technician • trainee site supervisor.

Unit 5: Health and Safety in Construction

Unit 4: Construction Technology

Unit 2: Construction Design

Unit 1: Construction Principles

Motivation
Confidence
Science
Properties of materials

SIMS

Learning aims
A Understand how health and safety legislation is applied to construction operations B Carry out the development of a safe system of work for construction operations C Understand the need for the review of safety systems for construction operations.

Learning aims
In this unit you will: A Understand common forms of low-rise construction B Examine foundation design and construction C Examine superstructure design and construction D Examine external works associated with construction projects.

The examination is 1 hour and 30 minutes. During the supervised assessment period, learners will be assessed on their knowledge of construction materials and their properties, application of mathematics in construction contexts, and the provision of human comfort in buildings. The number of marks for the paper is 75.

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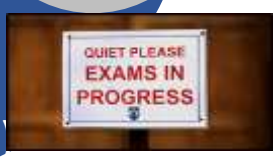

EXAM ASSESSMENT MOCK

SUBJECT KNOWLEDGE

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EXAM ASSESSMENT

NON-EXAM ASSESSMENT (NEA)

CAD
Orthographic
Isometric

Courage
Curiosity
Respect

• 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

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

Resilience
Self-discipline
Curiosity

NON-EXAM ASSESSMENT (NEA) MOCK

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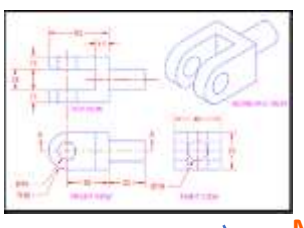
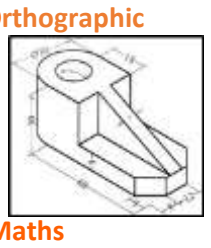
Joining Methods

2D TECHSOFT

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

Art – CAD/ Isometric / Orthographic





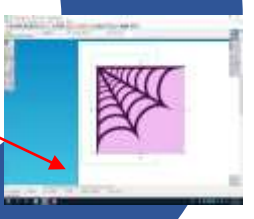
Maths
Measurements

Confidence
Motivation
Self-discipline
Curiosity

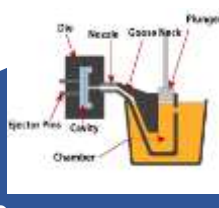
Which joining method is suitable for each material.

Science
Properties of materials

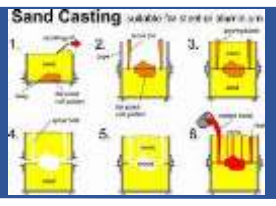
How to program the laser cutter using 2D techsoft



French
Bastille day 14 July
All Years



Sand Casting
Die Casting



Peer Evaluation

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Metal Properties

Science
Properties of materials

Three different Year 7 Homework Projects

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

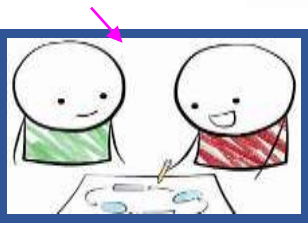
Single and two part casting

Respect

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

Three different Year 8 Homework Projects

Peer Assessment



Design to a Specification

Client

Open-mindedness

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

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

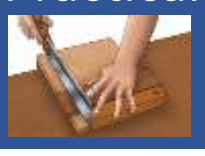
Science
Properties of materials

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

Health and Safety

Confidence, Self discipline While using machines in the workshop.

Properties of Woods



Practical Evaluation

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Resilience looking and Pros and Cons

Science
Properties of materials

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

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

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

Aesthetics
Cost
Customer
Environment
Safety
Size
Function
Materials

ACCESS FM

Existing Products

Art – CAD

Design

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Art – Isometric Drawing

PROUD

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

Art – Orthographic Drawing

Resilience designs will not be perfect first time