DESIGN & TECHNOLOGY

HIGHAM LANE NORTH ACADEMY

ENGINEERING

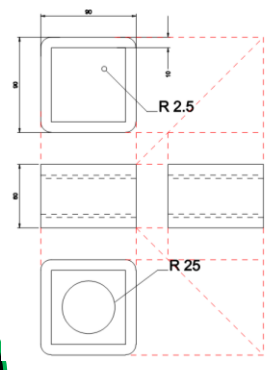
KS3 Learning Journey

Compare and contrast the properties of 3 metals

Metals and their properties

Eames Elephant, cut, file, shape, fold and finish

Practical Exam Aluminum Folding Eames Lamp



The Design Cycle
Identify, Design, Validate and Optimise.

Create a range of innovative sketches to solve the brief and specification.

Marking out, cutting, shaping, filing and finishing Skill

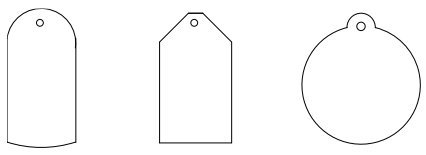
Technical Drawing Skills

Joints and Electronic Circuits

ECO HWK Project

Research and Investigation

Batch production templates



Isometric & 3rd Angle Orthographic Drawing

Yr9

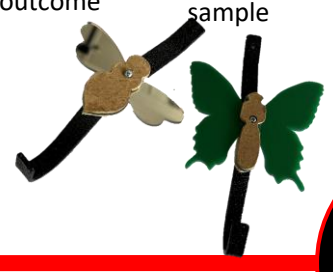
Research into Charles and Ray Eames. Design philosophy and modern materials

Practical Exam. Apply skill to SOL JUS product

Production methods.
One-off, batch, mass, continuous

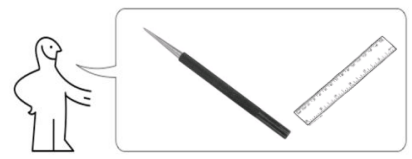
To apply previous learned skill to a high-quality outcome

To cut, fold & finish steel skill building sample



Skill building candle holder

Students follow teacher demo and mark out

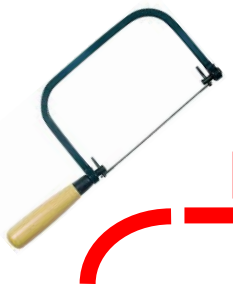


Engineer tool recognition

How to mark out steel sheet

Beyond the classroom learning.
Learn a new skill to make a new product.

CRAFT SKILL Project



Cut, file, drill & fold steel to make a hook

Students follow demo to marking out, cut and bend steel

Powder coat & join materials

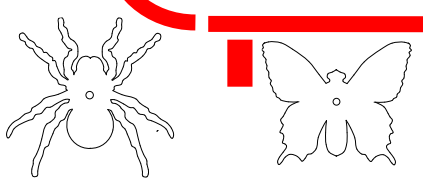
Categories of metals
Their uses, properties & stock forms

Discovery Learning Ferrous and nonferrous metals

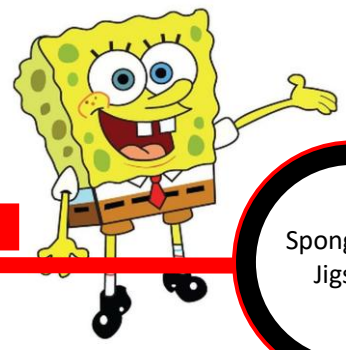
Cutting & finishing Practical Exam

Develop a range of woodwork skills to laminate cut, shape and finish materials

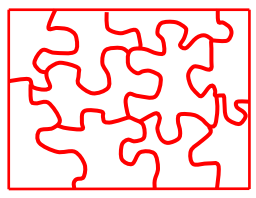
Design and make an innovative functional mosaic product.
Applying previous graphic skill,
Literacy annotation & making skill.



Creativity Mosaic HWK



SpongeBob Jigsaw



Hardwoods
Softwoods
Manufactured boards

The importance of Design and Technology and engineering in the modern world.
Discussion:

KS3