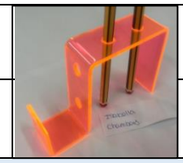
DESIGN TECHNOLOGY KNOWLEDGE ORGANISER

Topic: Keeping your desk tidy



YEAR 7 DT

My Tool Box

Tenon Saw – Used to cut straight lines in wood.

Coping Saw – Used to cut curves and internal shapes in wood.

Try Square – Used to mark out right angles.

Hand Vice – Allows secure clamping of material for drilling.

Laser-cutter- Used to laser-cut and engrave material.

Line Bender - Used to bend thermo-plastics like acrylic.

Pillar/Bench Drill – Used to drill holes into different materials.

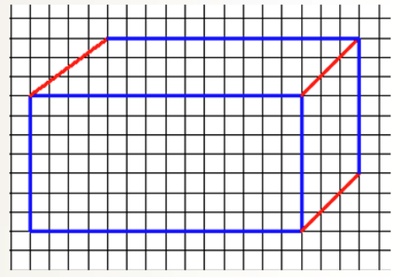
Machine vice – Used to hold workpiece securely during drilling.

Belt Sander – Used to sand/smooth down different materials

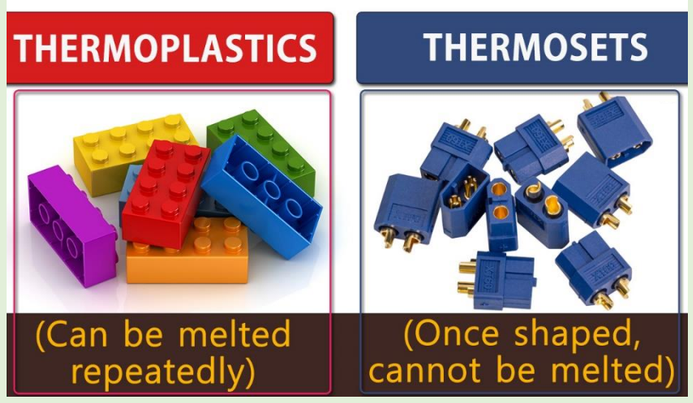
Focused Topics

Oblique drawing

In oblique projection the drawing is made up of a series of parallel horizontal and vertical lines and parallel 45 degree lines.



Polymers



Key Terms

Aesthetics - how humans perceive and judge objects according to their attractiveness

Computer aided design (CAD)-The process of creating a 2D or 3D design using computer software.

Computer aided manufacture (CAM)-The manufacture of a part or product from a computer aided design (CAD) using computer-controlled machinery, such as a 3D printer or laser cutter.

Drilling- the action of making a hole in something by boring with a drill.

Laser cutting- a technology that uses a laser to cut materials

Line-bending- a process used to bend thermoplastics in a straight line.

Tasks

Task 1: Cover the knowledge organiser then write down all the tools you have learnt. Check and red pen mistakes.
Task 2: Do the same as task 1 for Key words & definition.
Task 3: Name & describe 6 types of PPE (Personal Protective Equipment) - explain their use in a workshop.
Task 4: Draw two tools and write what they are for.
Task 5: Create a quiz based on task 1, 2 or 3. Get someone to test you.
Task 6: Create a mind map for the information you remember and red pen anything you've forgotten.
Task 7: Teach it. Create a task that can be used to teach some of the information from here.

To go further:

Introduction to oblique sketches:

More information about polymers: