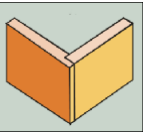


Y7 Resistant Materials Revision



Lap Joint



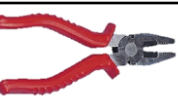
Tenon Saw



Bench Hook



Glass Paper



Pliers



Vice



File

Isometric Drawing

30° Angle

Advantages of using Computer Aided Design (CAD)

- Designs are easily edited and mistakes can be altered
- Designs can be made quickly to a high level of accuracy
- Designs files can be sent digitally and quickly

Disadvantages of using Computer Aided Design (CAD)

- CAD software costs a lot of money
- CAD requires skill to use, which can take a long time to learn
- Designs might get deleted

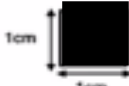
PPE Sign	Meaning	Activity	Hazard
	Wear goggles	When using machinery that creates debris or dust	You could damage your eyes.
	Wear gloves	When handling hot or sharp objects	Your hands could be cut/ burned.
	Wear ear protectors	When using loud machinery	You could damage your hearing.
	Wear dust mask	Using machinery or chemicals that create dust or fumes	You could damage your lungs.

Maths: Area

The area of a 2D shape is a measure of the spec inside its perimeter. **We measure using squares:**

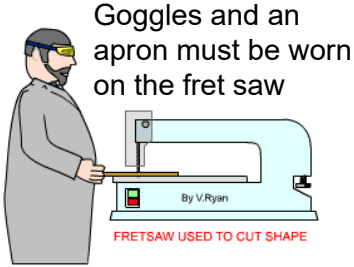


1mm² "one millimetre squared"



1cm² "One centimetre squared"

Area = length x width



Finishing Natural Timbers

Types of finish:

- Paint, Stain, Wax & Varnish.

Advantages:

- Seals the wood to protect the surface from heat and water.
- Enhance the grain.
- To colour the surface.
- To improve aesthetics

How to apply:

Smooth with glass paper, apply first coat along the grain with paint brush. Wait until dry and repeat 3 times.

	Natural Timber	Manufactured Board
Advantages	Naturally strong	Available in many sizes and thicknesses
	Long lasting / durable	Cheaper than because it is made from young, soft wood trees
	More aesthetically pleasing than manufactured board	Finishes can be easily applied
Disadvantages	Prone to warping	Less aesthetically pleasing than natural timber
	May have defects, e.g. knots in the wood	Is held together with glue and resin which makes them non biodegradable and non recyclable.
	More expensive because the trees must grow to a certain size before they can be cut.	Prone to warping over time if not supported.

Finishing manufactured boards

Veneer - A sharp blade cuts very thin layers wood called veneer. A layer of veneer can be glued onto less expensive manufactured board to produce a more attractive finish and imitate natural timbers but maintain the properties of a manufactured board.

Lamination - Laminating involves bonding by gluing strips of materials together in layers to create a strong structure. An example of this is wooden beams.

