



Y8: Design and Technology Knowledge organiser

Stylish Storage



## **Joining Processes**

Wood joints can be either permanent of temporary depending on the type and if glue is used.

Permanent:	Temporary:
When we do not want	When we will, or might
to take the pieces apart	need to take pieces
again	apart again
Glues, welding, rivets	Screws, bolts, nails

Screws

Nuts and bolts

Self-tapping screws

knock-down joints

Other standard components,

Joining processes

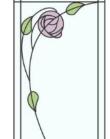
including captive nuts and

P.V.A. - Poly Vinyl Acetate best for joining 2 pieces of wood together

**Epoxy** – a thermosetting resin that can be used to bond most types of material Contact Adhesive - a glue type that creates a tacky bond on both surfaces to be ioined. It can be used with most materials.

## Tools & Equipment











### Textiles

- Tacking
- Sewing
- Stitching

#### Welding

- Spot
- Electric arc
- MIG/TIG Oxy-acetylene

### Brazing

- Oxy-acetylene
- Gas/air

#### Soldering

- · Hard (silver soldering)
- Soft

### Riveting e.g.

- "Pop"
- Solid
- Plastic

#### Mechanical joints

- · Rolled and crimped edges
- Slot and hook type mechanisms
- Velcro
- Tab and slot

#### Knock-down (KD) fittings e.g.

- Cam fittings
- Captive nuts
- Corner blocks
- Lock fittings

#### Tacks and nails

(for wood, upholstery and masonry)

#### Wood joints e.g.

- Comb joints
- Dovetail joints
- · Mortise and tenon joints
- Dowels

#### Adhesives e.g.

- PVA (PolyVinyl Acetate)
- Tensol
- **Epoxy resins**
- Double sided tape
- Dichloromethane



**Tenon Saw** 



**Bench Hook** 

**Try Square** 



Steel rule



**Disk Sanding** 

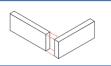


Screwdriver

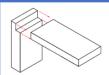
## **Corner Joints**



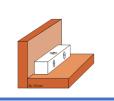
**Comb Joint** consists of a series of alternate notches and square pins of the same width. These slot together and are glued. A strong corner joint.



**Butt Joint** two edges or faces are 'butted' together. They can be joined with glue or nailed. A simple joint with limited strength.



**Lap joint** The shoulder or lapped joint is very common and can be seen in furniture and box constructions. a stronger joint due to the surface area that can be glued, and a shoulder is cut from the edge one piece.



**Knock down fitting** can be put together easily, normally using only a screw driver, a drill, a mallet/hammer and other basic tools. They are temporary joints although many are used to permanently join together items such as cabinets or flat packed furniture.

# Pyrography



the art or technique of decorating wood or leather by burning a design on the surface with a heated metallic point

