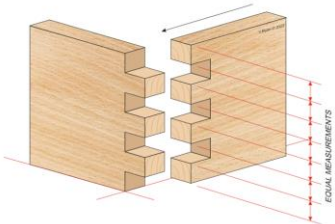


Year 10 Design & Technology Knowledge Organiser: Timbers Skills

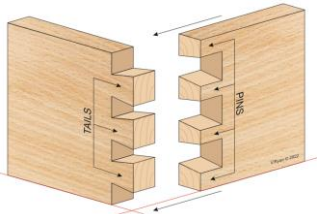
keyword	definition
mark out	to mark out is to draw dimensions onto a material
wastage	material that is removed, discarded or is no longer needed during any process
joint	a method of connecting two or more components of an object
adhesive	a substance that is used to make materials stick together
orthographic	a drawing showing different views of a product or part and the dimensions
component	any part of a structure, mechanism or circuit

Joins

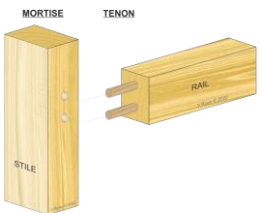
A finger joint is a joint where 'fingers' are cut out and slotted together, usually with adhesive for extra strength. The joints should interlock like hands. This joint has many applications, including boxes and cabinets.



A dovetail joint is a very strong joint, often used in higher end application because of its aesthetics. Dovetail joints require practice and a template is usually used.



A dowel joint is a fast and effective joint, used commonly in furniture production. Holes are drilled with the peg (dowel) used inside as a bridge to hold the two pieces together.



Surface Finishes



Varnish can be oil based or water based. The water based is a more environmentally friendly option. Varnish has protective and visual uses. It can protect from shrinkage, protect the surface from damage and sunlight.



Wood stain doesn't add a layer to the surface of the wood, instead it penetrates the surface to change the colour of the timber it is applied to. It therefore requires further treatment if protection is required.



Wax is suitable for interior products and brings out the grain of the timber with a natural matte finish. It provides the same level of protection as varnish against knocks and scratches.



Paint can be used as a surface treatment in a similar way to varnish, only it covers the grain of the timber rather than enhancing it. Water and oil based paints can be used on timber but an undercoat should be used to ensure even coverage.



Spray paint can be used on timber effectively. It can be particularly effective when covering large areas. A primer and undercoat may be required.

Exploded Diagrams

An exploded diagram shows how the separate parts of a product fit together, with dotted lines showing where parts go. They enable the user to see parts that would be hidden in a solid drawing. These are a graphic communication technique that can be interpreted by anybody, with no language barriers. They are commonly found in flat-pack furniture instructions.

