

**St Ivo Academy**  
**Design Technology Department**  
**Veneer Project**  
**Knowledge Organiser**

**Technical Terms and Definitions**

**Veneering**

**What is Wood Veneer?**

Wood veneer is a thin layer of wood. Manufacturers use these thin sheets of wood for any number of reasons, including decoration, surface finish and because it's cheaper to laminate onto the surface of a manufactured board instead of using solid wood. How is wood veneer made? Veneer is made by cutting thin slices off a whole log to make a sheet of wood. There are several ways in which these sheets can be cut.

**COMMON VENEER CUTS**



**Veneer can also be used for:**

**Inlay** – This is the process of using veneer to make lines, bands and small motifs into solid wood.

**Marquetry** – This is the art of cutting and assembling small pieces of veneer into pictures on a substrate.

**Parquetry** – Cutting pieces of veneer into geometric patterns, like a chess board

**What kinds of wood can be made into veneers?**

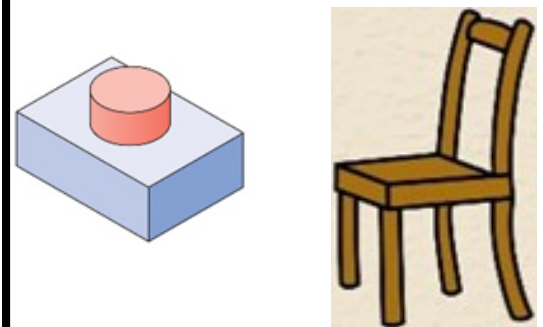
Any type of wood can be cut into veneers. Common woods such as oak, maple, birch, or cherry will be cut into veneers to be incorporated into commercial manufactured furniture.

More expensive woods such as mahogany, walnut, or figured wood, will be sliced into veneers and used in higher end custom made furniture.

What is design development?  
 In design development, the design ideas are sketched in stages showing different angles and elevations. They are reviewed, revised and expanded to incorporate all the details and specifications required for making the product.

What is a production plan?  
 The objective of a production planning is to plan and manage the materials and capacities based on the desired outcome. Therefore, production planning enables the manufacturer to fulfil demand and achieve goals efficiently and with high quality.

3D Drawing  
 A 3D drawing (or graphical projection) is a drawing technique used in designing, to sketch a shape or concept in a three-dimensional (3D) format on a two-dimensional (2D) surface.



2D Drawing  
 A 2D design drawing is the one that is composed of only two dimensions, the length and the width.



## Types of Woods

The wood that you use for your project, can be cut with either a tenon saw, coping saw or scroll saw.

### Softwoods

They are scientifically known as Gymnosperms. Softwoods come from coniferous trees and tend to be somewhat yellow or reddish. They are quicker growing and have needle like leaves, which they keep all year (evergreen). Their seeds can be found in cones. Most coniferous trees grow fast, straight and are generally less expensive than hardwoods. Examples of popular softwood trees used in woodworking, construction and furniture are: pine, cedar, fir, spruce and redwood.



TIP: Softwoods aren't necessarily weaker than hardwoods.

Common Softwood Furniture Types



### Hardwood

They are scientifically known as angiosperms. Hardwoods come from deciduous trees. They are slow growing and have broad flat leaves, which they lose in the winter. Their seeds are covered with either a skin or shell. The variety of colours, textures and grain patterns makes for some beautiful and interesting looking furniture. Examples of popular hardwood trees used in woodworking, furniture, flooring and sports equipment are: oak, ash, beech, mahogany and balsa. The downside to hardwoods is their price.



Common Hardwood Furniture Types



To get a good quality finish on your design, smooth the edges using either the finisher or glass paper. You could then beeswax your design to make it really shiny.

## Technical Terms and Definitions

**Wood Grain Structure:** The cellular structure of wood, including annual rings and rays, produces the characteristic grain patterns in different species of trees. The grain pattern is also determined by the plane in which the logs are cut at the



**Coniferous:** They have needles that don't fall off, are usually evergreen and have cones.

**Deciduous:** They have broad, flat leaves, which they lose in the autumn. All seeds are encased in a shell

**Template:** A shaped piece of rigid material used as a pattern for processes such as cutting out, shaping, or drilling.

**Geometrical shapes:** These are what most people think of as shapes: circles, squares, triangles and diamonds. These are regular patterns that are easily recognisable.

**Annotation:** adding notes, making comments and giving explanations.

## Sustainability

It's also relatively easy to find sustainably grown softwoods. These are managed by the Forest Stewardship Council (FSC) on tree farms, to ensure an endless supply of wood. This limits the impact on the environment and means you're not contributing to deforestation. It also means that we have a constant supply of wood for your projects. Some hardwoods are becoming very hard to find and are being harvested without concern to their eventual extinction (Brazilian rosewood comes to mind). If you can, try to buy wood from a sustainable forest (commercial tree farms that ensure the supply of the wood). Always look for ways to support sustainable forestry.