

### Natural Timbers

Softwoods are generally cheaper than hardwoods as they are more available, since they grow quicker.

But because man-made boards are manufactured they are cheaper than timbers. Man-made boards also come in a better variety of sizes since they don't depend on tree growth.

**Stock forms** for both include; sheets, dowel, planks, etc

<b>Hardwoods</b> come from <b>Deciduous Trees</b> . These trees lose leaves in winter and grow fruit and flowers in spring		
Material	Key info	Examples
<b>Ash</b>	Flexible, tough and shock resistant	Sports equipment Tool Handles
<b>Beech</b>	Fine finish, tough and durable	Toys, furniture and veneers
<b>Mahogany</b>	Easily worked, durable, high quality finish	High-end furniture
<b>Balsa</b>	Very soft and spongy. Light	Modelling
<b>Oak</b>	Tough, durable and hard	Flooring, furniture and veneers

<b>Softwoods</b> come from <b>Coniferous Trees</b> . These have thin, needle-like leaves and grow all year round. Often have pine cones and sometimes nuts and seeds		
Material	Key info	Examples
<b>Larch</b>	Durable, tough, good water resistance and finishes well	Furniture, flooring and used outdoors
<b>Pine</b>	Light, easy to work with but can split	Cheap furniture, construction and decking
<b>Spruce</b>	Easy to work with, high stiffness but can decay quickly	Furniture, musical instruments and construction

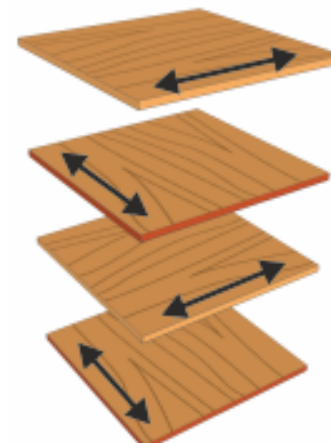
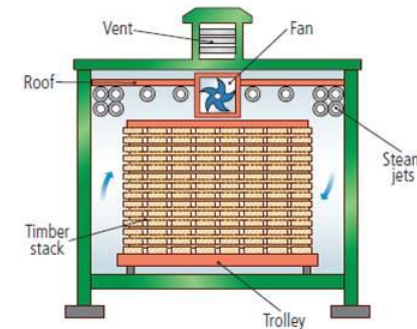
### Man-Made Boards

<b>Manufactured boards</b> are made from wood chips/dust/ layers and glue.		
Material	Key info	Examples
<b>Chipboard</b>	Prone to chipping but good compressive strength. Not-water resistant	Flooring, low-end furniture, flat-pack
<b>MDF</b>	Rigid and stable. Easy to finish. Absorbs liquid easily	Flat-pack furniture and kitchen units
<b>Plywood</b>	Very stable. Exterior veneer can be used from more expensive woods	Shelving, furniture, toys

### Primary Processing of Papers and Boards

Trees are cut then converted into planks by cut using saws  
It is then seasoned to reduce the moisture in the wood. This is done by either:

- Air-drying** – Planks are stacked and air allowed to circulate; causing evaporation
- Kiln-drying** – Where planks are put into a kiln and dried rapidly. This process is more costly than air-drying



Manufactured boards can be either be made by lamination or compression

**Lamination** – Layers of woods and adhesive are layered and compressed together. Usually with a more expensive wooden veneer on the top

**Compression** – Wood is shredded, heated and compressed with adhesive under extreme pressure