



# Building Materials

▼ Class

Tech Theater

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## Materials

### Wood

**Plywood** → various thicknesses

- Multiple layers (PLYS)
  - Ex. 5-ply → 5 layers, 6-ply → 6 layers
- 3/4" plywood is most common for *skin platforms* and *stair treads*

**Skinning** → surfacing something

**Luan/Lauan** → similar to plywood

- 'Underlayment' at home improvement stores
- Used in the theater to skin things (lightweight)

- Smoother and thinner (more expensive)
- Common in 1/8" and 1/4"

**Oriented Strand Board (OSB)** → recycled wood that is chopped and glued to a sheet

- Denser than plywood and splinters
- Not flawless when painted
- Eco-friendly
- 4' by 8'

**Lumber** → various types of wood

- 1x → sticks of lumber
  - 1x6 → 6 is the length
- Actual lumber is shorter than 1x\_
- 2x → Found under *STUDS*

**Extruded Polystyrene Foam / XPS Foam / Pink Foam** → glued together in layers

- Carved with a hot knife or blade
- Give off hazardous gasses when melted
- Sold in 2", 1", and 1/2" thicknesses

**Expanded Polystyrene Foam** → used in shipping packages

- Carved with a blade (hot knife is best)

**MDF and Hardboard (Masonite)** → used in stage flooring or custom moulding

- Made of sawdust and resin pressed

- MDF → Medium Density Fiberboard

**Moulding:** strip of material with a decorative profile typically used to transition from one surface to another

- *Profiles* → shapes
- Around doors and windows to finish a look
- Made from wood, PVC, or foam

**Polyvinyl Chloride (PVC) Pipes** → various diameters

- Typically used for plumbing
- Heated up and bent
- Cut with a saw or PVC pipe cutters

## Cuts

**Grain** → longitudinal arrangement of wood fibers or the pattern

- Along the length of wood (straight, swirly, or squiggly)
- Patterns in the wood

**Cross Cut** → perpendicular to the grain of wood

- Miter saws, circular saws, and jigsaws are used
- Table saws use an accessory called a *SLED* to stabilize the wood

**Rip Cut** → severs / divides a piece of wood parallel to the grain

- Table saws for ripping lumber and plywood
  - Also with a circular or band saw

## Mitres & Bevels

- Miter Cut → changing the angle from a cut
  - Adjusted from the front of the saw
- Bevel Cut → changes the vertical angle

## Drills

**Drills:** drill holes into materials

- Longer

**Impacts:** drive screws into material

- Have a magnet at the back
- Shorter