



## Construction Trades I

# Project Book 1-Chapter 6: Materials and Fasteners Used in Projects

May 14, 2020



11-12 Construction Trades I  
Project Book 1-Chapter 6 : [May 14, 2020]

**Objective/Learning Target:**

Students will learn about different power tools used for fastening and finishing and how to use them properly.

# MATERIALS AND FASTENERS USED IN PROJECTS

## What You Now Know

How to safely and effectively operate many common power tools

That a variety of materials are used by carpenters

## What You Will Know

What materials are commonly used in the carpentry trade

What fasteners are commonly used in the carpentry trade

# LUMBER

## PINE

- GRAIN IS STRAIGHT, FINE, AND SMOOTH
- EASY TO CUT AND MACHINE

## DOUGLAS FIR

- COLOR RANGES FROM WHITE TO YELLOW-BROWN
- EASILY NAILED, SCREWED, OR GLUED

## CEDAR

- RESISTANT TO ROT AND DECAY

## OAK

- HARD AND DENSE

# LUMBER DEFECTS

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KNOTS-SLIGHTLY DISCOLORED OVALS OR CIRCLES

PITCH POCKETS-DISCOLORED AREA

CHECKS-SHORT SEPARATIONS ALONG GROWN RING

SPLITS-SEPARATIONS COMPLETELY THROUGH THE BOARD

# DEFECTS CAUSED BY IMPROPER STORAGE

WARP-CURVE ALONG THE FACE, EDGE, OR LENGTH

BOW-WARP FROM END TO END ALONG FACE

CROOK-WARP FROM END TO END ALONG EDGE

CUP-WARP FROM EDGE TO EDGE ALONG FACE

TWIST-WARP ALONG THE LENGTH AND ACROSS THE FACE

# ENGINEERED WOOD PRODUCTS

## PLYWOOD

-THIN LAYERS OF WOOD GLUED AND STACKED TOGETHER AT RIGHT ANGLES

## ORIENTED STRAND BOARD

-LAYERS OF THIN WOOD SHAVINGS

## PRESSBOARD

-DENSE PANEL PRODUCT MADE FROM WOOD FIBERS JOINED UNDER HEAT AND PRESSURE

# FASTENERS

## Nails

- Thin, straight metal shaft with a point at one end
- Nail sizes – 2d to 20d
- Nail points – sharp, rounded, or blunt point
- Nail heads – flat or concave, various sizes
- Nail lengths – 1" to 3 1/2"



# FASTENERS AND ADHESIVES

## Brads

- used to avoid splitting the grain of the wood

## Screws

- cylindrical fasteners with spiral threads

- threads bite into the material

- twisted into wood or other material

## Adhesives

- used to bond materials

- yellow wood glue