

# Wood Joinery

## Objective

Review the features and benefits of the most common wood joints.

## Warm-up Activity

Stand next to a chest or table that has at least one drawer. Ask the staff to describe the features and benefits of the piece. When the wood joints are mentioned, acknowledge the good responses that have been given and tell the staff that the day's training will address wood joints; their features and benefits and how to sell furniture because of the joints. If the wood joints are not mentioned by the staff, then you should say something like, "In addition to those already mentioned, we cannot fail to recognize the value of this piece's wood joints. In today's training we will focus on wood joints; their features and benefits and how to sell furniture because of the joints."

## Read or Explain

Joinery is simply the method by which two pieces of wood are connected. In many cases, the appearance of a joint is at least as important as its strength. Joinery encompasses everything from intricate blind mortise to joints that are simply nailed, glued or screwed. In this session, we'll review the most common joinery options that are necessary to your selling more furniture.

## Activity: Locate the joints in your store

### Materials Needed:

Wood joint labels cut from page 2 of this lesson.

List of Features and Benefits included on pages 3 and 4 of this lesson

Cellophane tape

### Activity Instructions:

Divide the wood joint labels among the sales staff. Assign the sales staff to attach their labels to a piece of furniture utilizing the particular wood joint. When each sales person has attached their assigned labels, walk to each labeled piece of furniture with the staff and ask the following questions.

Has an appropriate piece of furniture been labeled?

What is the benefit of the wood joint that is used?

How would you explain it to your customer? - Be sure to discuss the benefits listed in this training.

Why did the manufacturer select this particular wood joint?

### Wrap-up:

Remind your staff that each of the different joints has a benefit that can help them sell each particular piece of furniture. The better they understand the benefits, the easier it is to sell the furniture.

# Wood Joinery Labels



Butt Corner

Rabbet Corner

Plain Miter

Doweled Miter

Mortise and Tenon

Open Mortise and Tenon

Blind Mortise

Dovetail Corner

Lapped Dovetail Corner

Glue Block Corner

Tongue and Groove

Dado Corner

Double Doweled Leg

# Features and Benefits

## Blind Mortise

Description - The partial depth cavity of this peg-and-hole design hides the square extension. A joint is less likely to twist if it has a square hole.

Benefit - The blind mortise has the strength of a mortise joint, but the joint itself is hidden.

## Butt Corner

Description - This joint is the most simple of all joints because it requires no additional cuts or grooves. The end of one board is placed flush against the second. The strength of this joint relies entirely on glue and fasteners.

Benefit - The strength of this joint is based on the proper use of glue and fasteners.

## Dado Corner

Description - A board or shelf is inserted into a square groove cut along the side of another board. This joint provides stability in two directions.

Benefit - The dado corner joint provides stability in two directions.

## Double Doweled Leg

Description - By utilizing multiple pegs, the possibility of undesirable twisting is reduced in this design. (Grooves in pegs prevent the formation of air pockets when glued.)

Benefit - Dowels in the double doweled leg joint provide extra strength and stability to a high-stress joint.

## Dovetail Corner

Description - This strong joint is typical of quality furniture. The interlocking fans of each board provide lasting strength, stability, and up to four times the gluing area that would be possible with a butt joint.

Benefit - The strong dovetail corner joint is a sign of quality furniture. The interlocking fans of each board provide lasting strength, stability and up to four times the gluing area that is available with a butt joint.

## Doweled Miter

Description - Though not unique to this joint, wooden pegs strengthen this 45 degree design. These pegs are inserted into drilled holes and held fast with glue.

Benefit - The doweled miter joint combines the elegant beauty of a miter joint with the additional strength provided by the dowels.

## Glue Block Corner

Description - In this design a separate piece of wood is added to the inside of a joint to reduce stress on the joint and add stability to the piece.

Benefit - The block in the glue block joint reduces stress on the joint and adds stability to the piece.

# Features and Benefits

## Lapped Dovetail Corner

Description - This variation of the traditional joint design not only provides strength and stability, but also hides the interlocking fans.

Benefit - A lapped dovetail corner not only provides strength and stability, but also hides the interlocking fans.

## Mortise and Tenon

Description - In this joint a projecting part of wood fits into a corresponding rectangular hole that extends through the board. These interlocking pieces are then glued, nailed, or screwed together for added strength.

Benefit - The mortise and tenon has been an important joint for centuries because of its strength and versatility. Because the joint is visible, it can add an additional element of decoration to a piece of furniture.

## Open Mortise and Tenon

Description - The slot of this peg-and-hole design allows the matching part to slide inside from the top during construction.

Benefit - Like the plain mortise and tenon, this is a strong and versatile joint.

## Plain Miter

Description - The 45 degree angles of this joint provide a more visually appealing variation to the standard butt joint. This joint is common in picture frames.

Benefit - The plain miter joint is not strong without reinforcement but is beautiful and elegant.

## Rabbet Corner

Description - A square groove is cut from the end of one board creating room for the end of the second board. In this configuration, the notch provides stability in only one direction. This is also known as a lap butt.

Benefit - Because it spreads stresses across the joint, rabbet corners improve upon the butt corner in strength and stability.

## Tongue and Groove

Description - This joint is named for its characteristic square extension and notch design. It is commonly used for hardwood flooring.

Benefit - This joint is commonly used for hardwood flooring and other applications where boards need to be joined into longer pieces.