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LESSON NOTES

School: Ba Sangam College
Subject: Basic Technology

Year/Level: 10
Worksheet 10

Name: _____
Year: _____

Strand	Joints and Processes
Sub Strand	Woodworking joints
Content Learning Outcome	Know the steps in preparation of a timber

On any joints construction, steps are taken after the normal procedure of **timber preparation** through **F.E.W.T.E.L.**

6 steps in Preparation of Timber:

1. Face side
2. Edge
3. Width
4. Thickness
5. End
6. Length

Steps in Joint Construction

Step 1 - Marking of the Joints

The use of geometrical tools, to mark the joints onto the piece(s) of timber. Wastes are to be marked with crosses. Marking knife is useful as it cut the fibres of the wood across the timber to avoid splitting when cutting with the tenon saw.

Step 2 - Cutting of the Joints

The **tenon saw** and **dovetail saw** are used for general and fine cutting of the joints. A **ratchet brace** fitted with a boring bit is used to bore out wastes from the mortise or bore holes for the dowel joints. A **mortise chisel** is also used to clean out the mortise while the **bevelled edged firmer chisels** are used for paring out wastes.

Step 3 - Trial Assembly & Final Assembly

This is done after cleaning out the joints using some of the tools mentioned above to check whether the joints are aligned and squared to the face or edge of the timber. Once you are satisfied then prepare all the materials and tools for final assembly.

Apply P.V.A. glue on both surfaces of the joints. Use G-cramp or sash cramp with a waste timber on both sides of the cramp to avoid damage to the joints. A damp piece of cloth is used to wipe out the surplus glue. You can also use nails or screws to strengthen the joints.

Step 4 - Cleaning of the Joints

Exposed nails are to be punched or screws to be driven below the surface of the timber to avoid damage to the cutting iron of a smoothing plane or chisel. A smooth garnet paper is rubbed against the surface of the joints to produce a smooth surface.

Step 5 - Final Finishing

Apply the sanding sealer, leave it to dry for some time and apply light pressure to the used garnet paper when papering the joints before the final coat of varnish or stain. Now days, portable power tools are used to save time, manpower and labour to complete the work successfully.

REVIEW QUESTIONS (10 marks)

1. List the 6 steps in preparation of timber?

(3 marks)

2. Explain the first step in preparation of joint?

(2 marks)

3. Explain the difference between trial assembly and final assembly?

(3 marks)

4. Name one type of finish applied on timber?

(2 marks)