

Teacher: Mr. Wheatley

Name: _____

Date: _____

Deadline Date:

Class: AM or PM (circle one)

Cognitive Value: 160 points



2010-2011

Carpentry Fundamentals Level 1

Module: 27105-06 Floor Systems
10 Classroom Sessions @ 2.5 hours
Lesson# 2 of 4 / Section 4.0

- **Mastery Objective:** Upon completion of these module sections 4.0 students will be able to:

Identify floor and sill framing and support members. Name the methods used to fasten sills to the foundation. Give the specific floor load and span data, select the proper girder/beam size from a list of available girders/beams and also list and recognize different types of floor joists.

- **Enduring Understanding:**

Residential floor framing is a standard carpentry procedure. This module covers the materials and general methods used to construct floor systems, with emphasis placed on the platform method of floor framing. Skill in floor framing is an essential one for professional carpenters.

- **Essential Questions:** Answer the following questions.
Cognitive Value: 10pts. ea. = 40pts. total

1. What are the basic components of a floor system?
2. What are the methods used to fasten sills to the foundation?

3. For a given size, which type of girder or beam has the most strength?
 4. What is a floor joist?
- **Math Learning Activities: (math warm-ups) Cognitive Value: 20pts.**
 1. **Carpentry Math M20-2** “Estimating Floor Joists” **Only Problem #1**
 - **Reading and Writing Learning Activities: Cognitive Value: 50pts.for readings and participation**
Read Pgs. 12-27 / Section 4.0 / Class Discussion
 1. Complete Review Questions 8-17. **Directions:** questions are located in the text, and you must write the question and answer on a separate sheet of paper!!!
 2. Complete Worksheet #2
 3. Trade Terms.
 - **Trade Terms: (vocabulary) Cognitive Value: 10pts. ea. =70pts. total**
 1. Dead Load-
 2. Live Load-
 3. Header Joist-
 4. Joist Hangers-
 5. Trimmer Joists-
 6. Tail Joists-
 7. Underlayment-

- **Performance Profile Tasks:** Performance Daily Grades Pass/Fail
 1. Given specific floor load and span data, select the proper girder/beam and joist size from a list of available girders/ beams/ joist.
 2. Performance Profile Job Sheet #1 or Job Site

- **Summarizer/Closure:**

A great majority of a carpenter's time is devoted to building floor systems. It is important that a carpenter not only be knowledgeable about both traditional and modern floor framing techniques, but, more importantly, be able to construct modern flooring systems.

Materials and Equipment List

- **Transparencies**
- **White board markers**
- **Pens and pencils**
- **Personal Protective Equipment (PPE)**
- **Floor adhesive (optional)**
- **Beam material**
- **Grout**
- **Plywood or OSB butt-joint panels to cover floor area**
- **Plywood or OSB (tongue-and-groove, 1 1/4") to cover floor area**
- **Shim materials**
- **Sill sealer**
- **Steel bridging and instructions**
- **Termite shield**
- **2 3 6s for sills**
- **2 3 10s for joists and headers**
- **1 3 4s or 2 3 10s for bridging**
- **8d box nails for bridging**
- **8d box, screw, or ring shank nails for flooring**

- **16d box nails for joists and headers**
- **8d double head box nails**
- **Pictures, photographs, etc., showing braced, balloon, platform, and post-and-beam framing**
- **Sets of building working drawings and specifications**
- **Examples of several floor plans and specifications**
- **Pictures/photos of building damage that resulted from defective floor and sill framing (optional)**
- **Tool box consisting of standard carpenter's hand tools**
- **Chalkline**
- **Electric drill and assorted drill and flat bits**
- **Framing square**
- **Level**
- **100' tape**
- **Power circular saw and extension cord**
- **Reciprocating saw**
- **Performance Profile Job Sheet #1**

Instructors Notes:

