

Lesson #3: Scale Model Wall Framing (20 Days)

Objectives

Students will be able to...

- Identify the 12 primary members of a wood stick-framed wall.
- Layout and construct model home walls from blueprints.
- Correctly spell and use the terminology associated with wood wall framing.
- Assess scale model wall framing; adherence to code, cleanliness, squareness, and accuracy (compared to the prints and to scale).
- The name and purpose of the members involved in the construction of wood stick-framed walls, and how they are assembled.
- The order of construction in preparation for, and the processes of wall framing.
- What properly constructed wall sections look like. The name and purpose of the members involved in the construction of stick-framed walls, and how they are assembled.

Common Core Standards

RSIT 11-12.2

RLST 11-12.2

WS 11-12.2

Health and Safety 6.0, 6.2, 6.3, 6.4, 6.5, 6.6

Technical Knowledge and Skills 10.0, 10.1, 10.2, 10.3, 10.4

Demonstration and application 11.1

Cabinetmaking and Wood Products Pathway A4.1, A4.4, A6.1

Residential and Commercial Pathway D2.1, D2.3, D3.1, D3.2, D3.3, D5.2, D6.3, D6.5, D6.6, D6.7, D6.8, D6.9

Materials

Self-evaluation Worksheet

Wood:

- (12) 2x4x20 [$\frac{3}{16}$ x $\frac{1}{2}$ x 20"] Plating
- (132) 2x4x8 [$\frac{3}{16}$ x $\frac{1}{2}$ x 8"] Studs, Outside Corners (Stud-Block-Stud), Channels, Trimmers, Rough Sills, Cripples, Fire-Blocking
- (3) 4x4x10' [$\frac{1}{2}$ x $\frac{1}{2}$ x 10"] Headers

Notes -

- 1x12x4' Piece of pine planed to 1/2" thick and ripped 28 times at 3/16 will provide all the 2x material needed by one team/company.
- 30" strip of 1/2 x 1/2 pine will cover one team/company's header needs.
- You can get 18 strips (w/ a full-kerf blade) out of a 1x12x30" board.

Tools:

- Architectural Scales
- 1 Micro-Pinner for each team/company with 23ga.x5/8" headless micro-pins. If Micro-Pinners are not available, an 18 ga. Brad Nailer with 5/8 brads. If neither of these is available, then Brad Pushers and 5/8 Brads will do.
- Glue
- 1 Hobby Saw for each team/company
- Framing and Speed Squares
- Yardsticks, Rulers, and/or Measuring Tapes

Lesson Sequence

- Bring students into the shop and demonstrate how to "snap", plate, and detail as well as frame a wall or two.
- Answer any questions on student's task of creating their wall framing model. Support students their work.
- On day 20 provide students with a ***Self-evaluation Worksheet*** and have students evaluate their work while framing their wall models. Grade student's final product.

Assessment

Informal assessment done daily while students are in the shop working.
Student self-evaluation
Grade final product

Accommodations/Modifications

Check for Understanding
Extra Time If Needed
Strategic Partnering
Visuals

Self-evaluation Worksheet

1. What I have learned about this portion of framing so far.....

2. Four terms and their definitions that I have learned about this portion of framing are...

- 1) _____
- 2) _____
- 3) _____
- 4) _____

3. Safety practices that I have been observing...

4. What I would still like to learn about framing is...
