

Experienced Worker Assessment Blueprint

Carpentry



Specific Competencies and Skills Tested in this Assessment:

Hand Tools

- Use and maintain fastening and prying tools
- Use and maintain sawing and cutting tools
- Use and maintain boring and clamping tools
- Use and maintain smoothing tools
- Use layout and marking tools

Power Tools

- Use blades and bits
- Use smoothing tools
- Use portable power saws
- Use stationary power equipment
- Use portable power drills
- Use power screwdrivers
- Use portable power routers
- Use power sanders
- Use pneumatic tools
- Use power-actuated tools
- Use power miter box
- Use reciprocating saw



Blueprints and Specifications

- Determine dimensions from multiview drawings
- Cross-check dimensions
- Demonstrate knowledge of scales in drawings
- Identify blueprints, lines and symbols
- Read foundation plans
- Read floor plans
- Read exterior elevations
- Read section views
- Read details
- Read schedules
- Read specifications

Specific Competencies and Skills continued:**Building Materials and Fasteners**

- Estimate materials
- Select, use, and identify fasteners
- Receive and store building materials
- Select and identify building materials

Building Layout

- Install batter boards
- Set grade stakes
- Set corner stakes
- Check for squareness
- Demonstrate understanding of leveling concepts
- Read plot plans

Foundations, Forms, and Concrete

- Construct and align footing forms
- Construct and align foundation forms
- Install re-bar
- Brace formwork
- Strip forms

Rough Framing

- Frame walls
- Brace walls
- Square wall before erecting
- Construct partition/corner post
- Layout joists/openings in floors
- Determine opening sizes and components for floors and walls
- Determine sizes for door headers
- Determine various floor framing members
- Determine various wall framing members
- Construct stair opening
- Bridging
- Install ceiling joists
- Apply floor, wall, and roof sheathing
- Install roof trusses
- Layout common rafter
- Identify roof framing members
- Determine rafter lengths from framing table



Specific Competencies and Skills continued:

- Brace roof trusses
- Stair construction
- Lay out hip rafters
- Lay out valley rafters
- Lay out jack rafters

Exterior Finish and Shingles

- Install roofing materials
- Install siding
- Install soffit/fascia
- Install door units
- Install window units
- Install weatherization materials
- Demonstrate knowledge of proper nailing techniques
- Check hand/swing of door



Interior Finish

- Install running trim
- Install paneling
- Install shelves
- Install locksets
- Hang doors
- Install interior pre-hung door
- Install door trim
- Install window trim

Specific Competencies and Skills continued:**Basic Mathematics**

- Add, subtract, multiply, and divide whole numbers
- Add, subtract, multiply, and divide fractions
- Add, subtract, multiply, and divide using decimals
- Find perimeter
- Find area
- Identify formula for concrete
- Change fractions to decimals
- Change decimals to fractions
- Change inches to decimals to feet
- Change decimals to feet to inches

Interior Systems Installation

- Construct metal stud walls
- Install insulation
- Install dry wall
- Install ceiling tile
- Install wood flooring

**Employee Safe Work Habits**

- Use personal protective equipment
- Identify safety practices
- Maintain ladders/scaffolding
- Erect ladders/scaffolding
- Describe OSHA
- Dismantle frame scaffolding
- Recognize potential and existing job-site hazards
- Understand MSDS sheets (Material Safety Data Sheets)

Measuring Skills

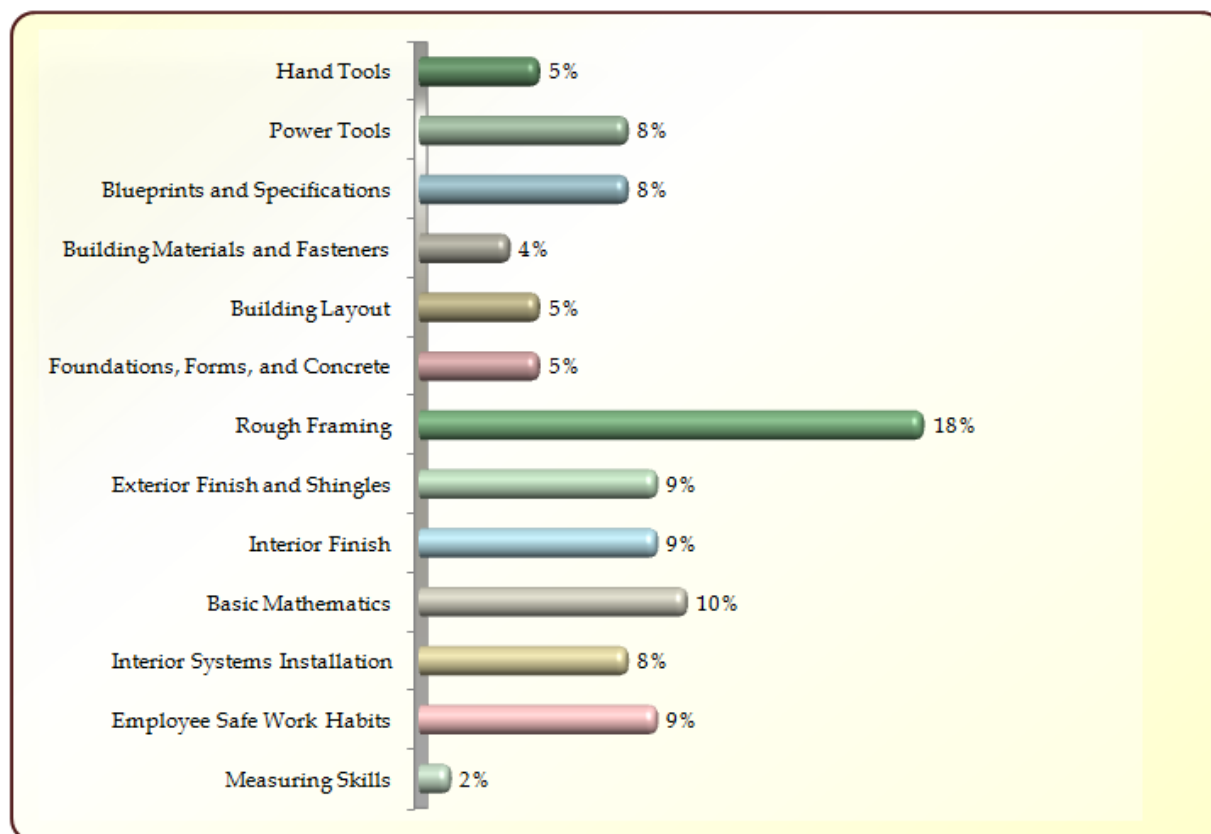
- Demonstrate knowledge of measuring
- Use of metric measurement

Written Assessment:

Administration Time: 3 hours

Number of Questions: 184

Areas Covered:



Sample Questions:

The path a saw blade cuts in a piece of wood is called

- A. set
- B. clearance
- C. kerf
- D. waste

To prevent "kick back" when using a circular saw,

- A. keep the blade sharp
- B. lift up on the end being cut off
- C. always wedge the guard up
- D. cut the material as fast as possible

In wood frame buildings, window openings are usually dimensioned on a floor plan to the

- A. bottom of the window
- B. center of the opening
- C. side of the opening
- D. top of the window

Forms for a poured concrete foundation wall are most commonly made of

- A. hardboard or structure board
- B. 1-inch by 12-inch lumber
- C. plywood or steel
- D. shiplap lumber

With beveled wood siding, which of the following is usually installed last?

- A. drip cap
- B. corner pieces
- C. siding
- D. cant

Performance Assessment:

Administration Time: 5 hours and 15 minutes

Number of Jobs: 8

Areas Covered:

10% **Blueprint Reading/Sole Plate Layout**

The participant will lay out a sole plate for the east wall from the plan provided. Paper will be stapled or taped to the plate, and the position of all studs, trimmers, blocking and other required members will be shown.

15% **Rafter Layout**

The test participant will staple or tape the paper to the face of a 2-inch by 4-inch by 16-foot and lay out one common rafter with overhang.

10% **Hip Rafter Layout**

The participant will staple or tape the paper to the face of a 2-inch by 6-inch by 16-foot and lay out one hip rafter with overhang.

10% **Hip Jack Rafter Layout**

The participant will staple or tape the paper to the face of a 2-inch by 4-inch by 16-foot and lay out one hip jack rafter with overhang (2 on longest).

10% **Stairway Stringer**

The participant will staple or tape the continuous-fold paper to 1-inch by 12-inch by 8-foot stock and lay out one stringer for an open stairway leading from a concrete patio to a wood deck. The participant will not cut or install treads; however, the tread positions will be laid out on the stringer.

15% **Window Frame Construction**

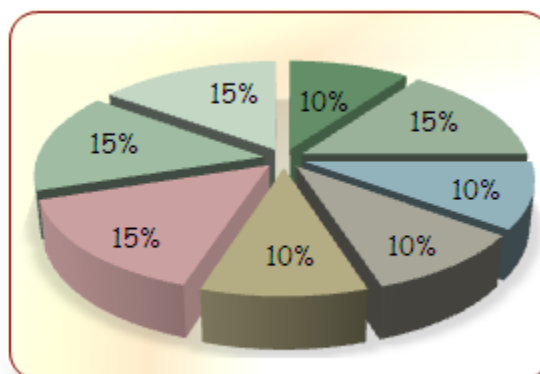
The participant will build a window frame as shown in a drawing provided. Dados will fit snugly and will have no gaps.

15% **Wall Construction**

The participant will construct a frame wall with a window opening to receive the window made during the window frame construction job. After framing, the wall will be lifted and braced so that sheet rock may be installed.

15% **Window Frame Installation**

The participant will install a window frame in the rough opening provided. The top and both sides of the window frame will be cased. Mitered corners will be required. Stool will be cut to fit window to extend past casing 3/4-inch. Casing will fit stool with no gaps and apron will be returned.



Sample Job: Window Frame Construction

Estimated Job Time: 1 hour

Participant Activity: Using the print provided, the participant will construct a window frame of wood according to the print. This frame will later be installed in the wall.

