

Teacher Assessment Blueprint

Carpentry



Test Code: 5265 / Version: 01

General Assessment Information

Blueprint Contents

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Test Type: The Carpentry assessment is included in NOCTI's Teacher assessment battery. Teacher assessments measure an individual's technical knowledge and skills in a proctored proficiency examination format. These assessments are used in a large number of states as part of the teacher licensing and/or certification process, assessing competency in all aspects of a particular industry. NOCTI Teacher tests typically offer both a written and performance component that must be administered at a NOCTI-approved Area Test Center. Teacher assessments can be delivered in an online or paper/pencil format.

Revision Team: The assessment content is based on input from subject matter experts representing the following states: Kentucky, Maine, Michigan, Missouri, Pennsylvania, Virginia, and Washington.



46.0201- Carpentry/Carpenter



Career Cluster 2-
Architecture and
Construction



47-2031.01- Construction
Carpenters



In the lower division
baccalaureate/associate degree
category, 3 semester hours in
Residential Carpentry

Written Assessment

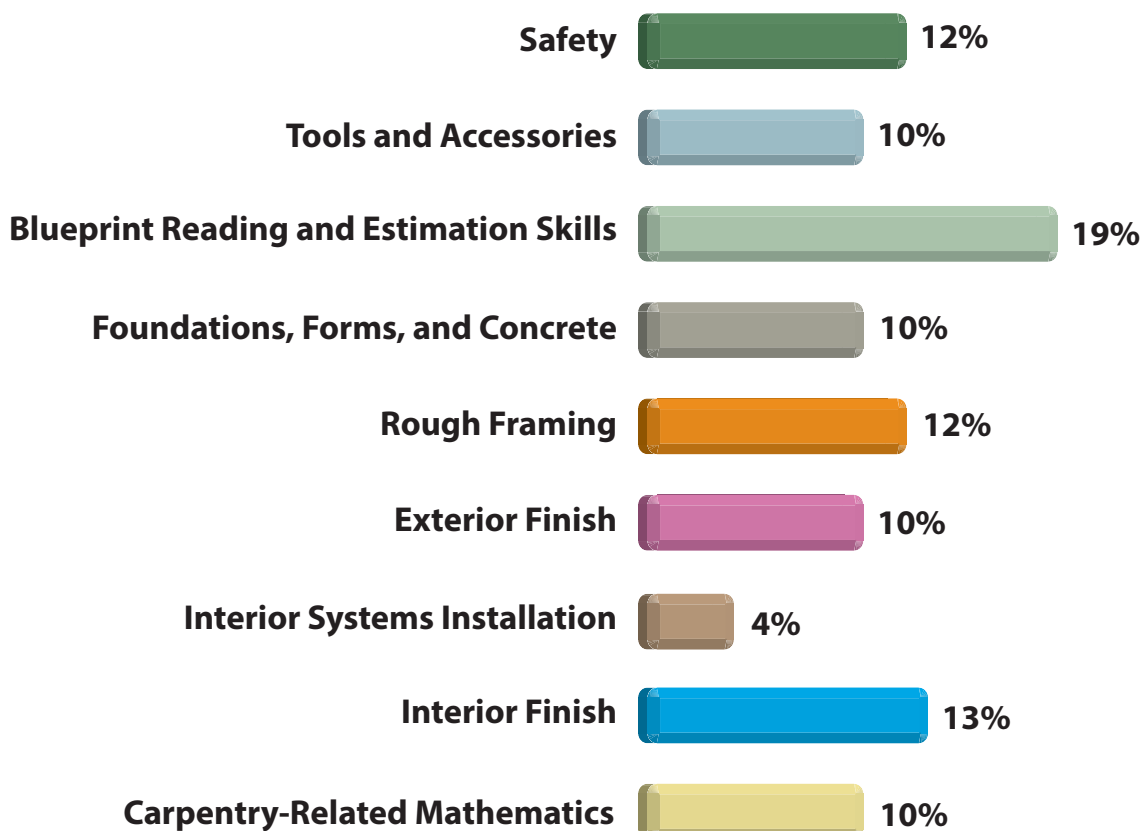
NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

Administration Time: 3 hours

Number of Questions: 165

Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered



Specific Standards and Competencies Included in this Assessment

Safety

- Demonstrate safe material handling practices
- Display comprehension of workplace/job-site safety procedures (OSHA)
- Exhibit knowledge of SDS and personal protective equipment (PPE)
- Display understanding of hand tool safety issues
- Display understanding of power tool safety issues

Tools and Accessories

- Use and maintain hand tools
- Use and maintain power tools
- Use and maintain measuring, layout, and marking tools

Blueprint Reading and Estimation Skills

- Demonstrate awareness of general building codes
- Display comprehension of dimensions and scales
- Read and understand various views and elevations
- Display understanding of symbols, lines, and details
- Extrapolate information from a set of plans
- Estimate materials quantities

Foundations, Forms, and Concrete

- Lay out foundation
- Construct and align footing and foundation forms
- Install, brace, align, and remove formwork
- Understand concrete characteristics

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Specific Standards and Competencies (continued)

Rough Framing

- Demonstrate understanding of floor systems
- Demonstrate understanding of wall systems
- Demonstrate understanding of roof systems
- Calculate, lay out, and install stairs

Exterior Finish

- Identify and install cornice and trim
- Calculate and install roofing
- Identify, prepare, and install windows and doors
- Calculate, lay out, and install siding



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Specific Standards and Competencies (continued)

Interior Systems Installation

- Install insulation
- Install and finish interior walls and ceilings

Interior Finish

- Install interior doors
- Install standing and running trim
- Install cabinets and associated hardware

Carpentry-Related Mathematics

- Perform basic mathematical operations; whole numbers, fractions, and decimals
- Perform linear, square, and cubic computations
- Perform algebraic and geometric functions



Sample Questions

Under OSHA fall protection regulations, a worker must wear the required protective equipment at _____ or higher.

- A. 4 feet
- B. 6 feet
- C. 10 feet
- D. 20 feet

A/An _____ line shows the length of the exterior walls on a floor plan.

- A. object
- B. dimension
- C. leader
- D. extension

Trimmer studs strengthen the sides of an opening and bear the direct weight of the

- A. wall
- B. header
- C. window
- D. sill

Hinges and a track are used in what type of door system?

- A. pocket
- B. swinging
- C. bifold
- D. bypass

The _____ determines the size of a hammer.

- A. size of the claw
- B. weight of the head
- C. length of the handle
- D. diameter of the head

Performance Assessment

NOCTI performance assessments allow individuals to demonstrate their acquired skills by completing actual jobs using the tools, materials, machines, and equipment related to the technical area.

Administration Time: 2 hours, 45 minutes

Number of Jobs: 7

Areas Covered:

18% Tool and Material Identification

Participant will accurately identify a variety of tools and materials, including saws, bits, saw blades, wrenches, nails, fasteners, lumber, finishing, layout, and marking tools.

9% Square Layout

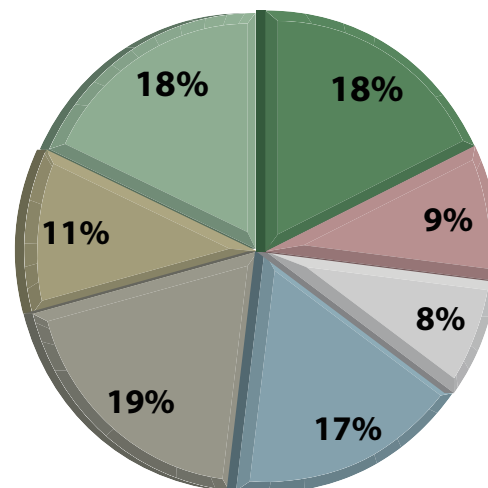
Participant will use the appropriate equipment and techniques to lay out and chalk a square.

8% Establish a Starting Course for Vinyl Siding Using a Builder's Level

Participant will properly set up and use a builder's level to establish a level chalk line for the starting course of vinyl siding on a wall.

17% Blueprint Reading and Exterior Sole Plate Layout

Participant will lay out a sole plate according to instructions and include all necessary markings.



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19% Rafter Layout

Participant will lay out one common rafter using provided plans and materials showing all necessary corrections and adjustments.

11% Stairway Stringer

Participant will layout a 3-tread stringer through interpreting the plan. Participant will use the appropriate tools and providing the correct riser height, tread run, stringer markings, and tread thickness.

18% Interior Frame

Participant will install an interior frame in a given opening using appropriate procedures, tools, and equipment.

Sample Job

Square Layout

Maximum Time: 20 minutes

Participant Activity: The test participant will chalk out a 12-foot by 12-foot square using blue chalk and placing blocks at the corners, as shown in the drawing provided.

