



Job Ready Assessment Blueprint

Construction Masonry - Block



Test Code: 4025 / Version: 01

“Measuring What Matters”

Specific Competencies and Skills Tested in this Assessment:

Safety

- Identify and use PPEs (personal protective equipment)
- Demonstrate knowledge of workplace/jobsite safety procedures, including lock-out/tag-out
- Exhibit understanding of OSHA safety standards and MSDS
- Erect and use scaffolds safely
- Display understanding of ladder safety

Craft Knowledge

- Explain the history of the craft
- Identify job opportunities in the masonry industry
- Identify craft terminology

Hand and Power Tools

- Identify, use, and properly care for hand tools
- Identify, use, and properly care for power tools

Materials

- Identify and select materials, including synthetic stone and brick products
Identify various mortars (M, S, N, O) and cements (Type I, II, III) and their uses
- Identify material sizes

Blueprints and Specifications

- Read and interpret written specifications
- Identify and interpret lines and symbols
- Read and interpret drawings and plans



Specific Competencies and Skills continued:

Project Layout

- Square a building, use of 3-4-5/Pythagorean theory
- Install a corner/story pole and determine heights
- Install a metal door/window frame
- Layout and construct control joints
- Identify and install anchor bolts and masonry fasteners

Block

- Job site set-up
- Lay block to the line
- Tool off/join units
- Build block leads and corners
- Calculate cuts for various block corners
- Reinforce walls; horizontally and vertically
- Identify various types of specialty block
- Identify and install wall ties and accessories
- Identify and position various types of lintels

Flashing, Weeps, Insulation

- Install flashing correctly
- Install weep holes correctly
- Install insulation correctly

Math and Measurements

- Exhibit comprehension of construction masonry-related mathematics
- Exhibit understanding of measurements and conversions
- Estimate/calculate materials needed



Specific Competencies and Skills continued:

Masonry Structure Maintenance

- Restore and repoint masonry units
- Select and use masonry cleaning agents

Professionalism

- Exhibit understanding of communication/leadership skills
- Display understanding of professional ethics and behavior

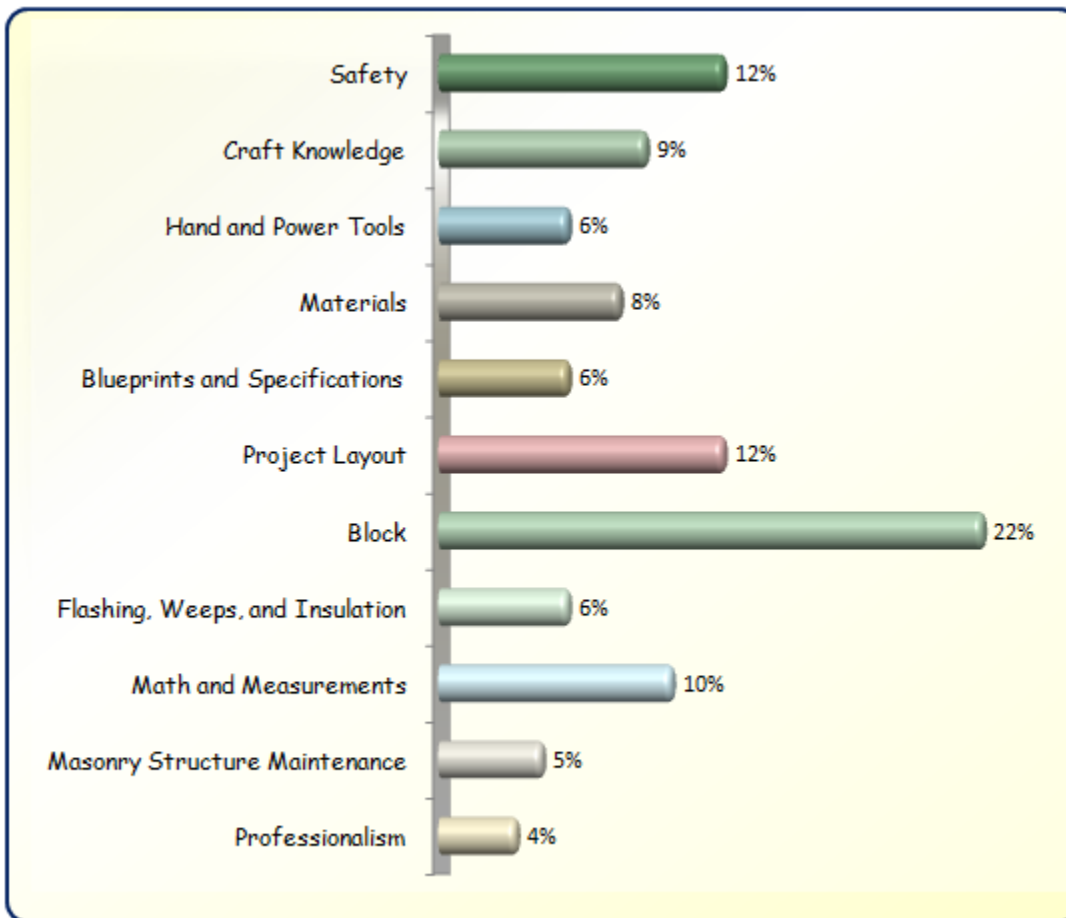


Written Assessment:

Administration Time: 3 hours

Number of Questions: 153

Areas Covered:



Sample Questions:

To avoid accidents, ladders must be kept away from

- A. walkways and traffic lanes
- B. a level floor
- C. the boiler room
- D. carpeting

A piece of metal used for securing line at both ends of course height is a

- A. brick tie
- B. line block
- C. line pin
- D. brick set

Which of the following is made to resemble a stone?

- A. scored block
- B. sound block
- C. split-faced block
- D. open-end block

Expansion and control joints are used to

- A. provide strength
- B. improve appearance
- C. allow for movement
- D. eliminate movement

A material used to strengthen masonry block cells is called

- A. grout
- B. wythe
- C. keel
- D. thinset



Performance Assessment:

Administration Time: 2 hours and 35 minutes

Number of Jobs: 3

Areas Covered:

20% Job Layout

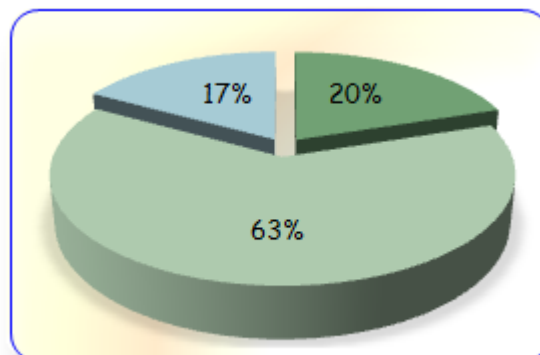
Selection and safe use of tools, project length measured according to drawing specifications, squared the project, and time to complete Job 1.

63% Construct a Block Wall/Pier in Stretcher/Running Bond

Level top course; plumb points A, B, C, D, E, and F; corner and wall are square and in range; stayed on coursing dimensions; fullness of joints; maintained proper half-bond; and time to complete Job 2.

17% Project Jointing

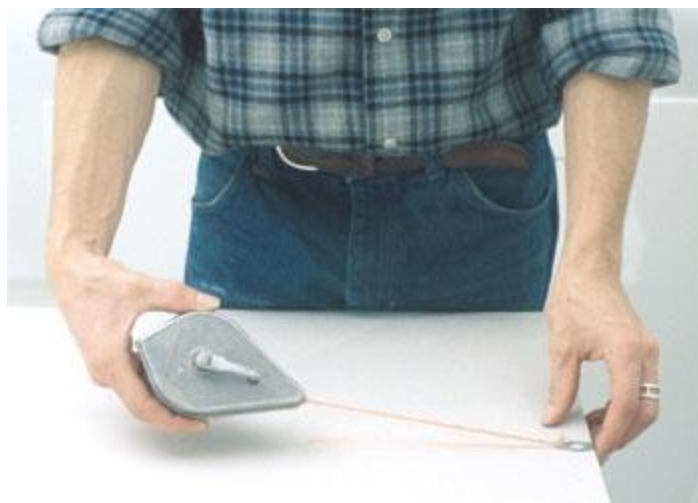
Jointing, overall project appearance, and time to complete Job 3.



Sample Job: Job Layout

Maximum Time: 15 minutes

Participant Activity: The participant, using appropriate tools, will measure project size according to drawing specification. Snap a chalk line, dry bond the first course using 3/8 inch mortar joints. Mark off dimensions for the project, and square the project.



The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!

Association for Career
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ACTE
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The Pennsylvania Builder's Association utilizes this assessment to assist in determining competencies for granting skill certificates to students graduating from Pennsylvania secondary trade programs that have been endorsed by the Pennsylvania Builders Association (PBA).

PBA's services include support to workforce training and education by linking industry employers with educators to grow the workforce of tomorrow. PBA serves Pennsylvania communities and consumers through its steadfast efforts to protect homeownership rights and advocate for affordable housing options. PBA is affiliated with the National Association of Home Builders.