



## Entry Level Assessment Blueprint

## Construction Principles



**Test Code: 1177 / Version: 01**

## **Specific Competencies and Skills Tested in this Assessment:**

### **Foundations of Safety**

- Demonstrate understanding of the role that safety plays in the construction industry
- Demonstrate understanding of the idea of a safety culture and its importance in the construction industry
- Demonstrate understanding of the meaning of jobsite safety

### **Jobsite Safety, PPE, and Safety Regulations**

- Demonstrate understanding of the role of OSHA in jobsite safety
- Demonstrate understanding of appropriate safety precautions to take around common jobsite hazards
- Demonstrate understanding of safe behavior on and around ladders and scaffolds
- Define safe work procedures to use around electrical hazards
- Demonstrate the use and care of appropriate Personal Protective Equipment (PPE)
- Exhibit knowledge of donning and inspection of personal fall protection

### **Hazard Analysis**

- Identify causes of accidents and the impact of accident costs
- Define hazard recognition and risk assessment techniques
- Identify fall hazards and fall protection techniques and practices for different situations
- Identify struck-by and caught-in-between hazards and demonstrate safe working procedures and requirements
- Identify other construction hazards on the jobsite, including hazardous material
- Identify construction site hazards dealing with aerial lifts, scissor lifts, and forklifts

## *Specific Competencies and Skills (continued):*

### **Hand Tools**

- Demonstrate and understanding the care for hand tools and how to visually inspect them for safe use
- Demonstrate understanding and safe use of hammers (e.g., claw, sledge)
- Demonstrate understanding and safe use of ripping bars and nail pullers
- Demonstrate understanding and safe use of chisels and punches
- Demonstrate understanding and safe use of screwdrivers (e.g., Phillips, Torx)
- Demonstrate understanding and safe use of wire cutters and pliers (e.g., adjustable locking, lineman's)
- Demonstrate understanding and safe use of wrenches (e.g., adjustable)
- Demonstrate understanding and safe use of sockets and ratchets
- Demonstrate understanding and safe use of levels (e.g., laser) and squares (e.g., speed)
- Demonstrate understanding and safe use of rulers and measuring tools (e.g., tape measure)
- Demonstrate understanding and safe use of plumb bob and chalk lines
- Demonstrate understanding and safe use of utility knives, tools required to repair drywall, and crosscut saws

### **Power Tools**

- Identify the general safety rules for operating power tools
- Identify the general safety rules for properly maintaining power tools
- Identify and exhibit understanding and safe use of stationary power tools
- Demonstrate understanding and safe use of drills (e.g., cordless, hammer)
- Demonstrate understanding and safe use of saws (e.g., miter, reciprocating, circular)
- Demonstrate understanding and safe use of grinders and sanders (e.g., belt, orbital)
- Demonstrate understanding and safe use of pneumatic nail guns
- Demonstrate understanding and safe use of powder-actuated nail guns

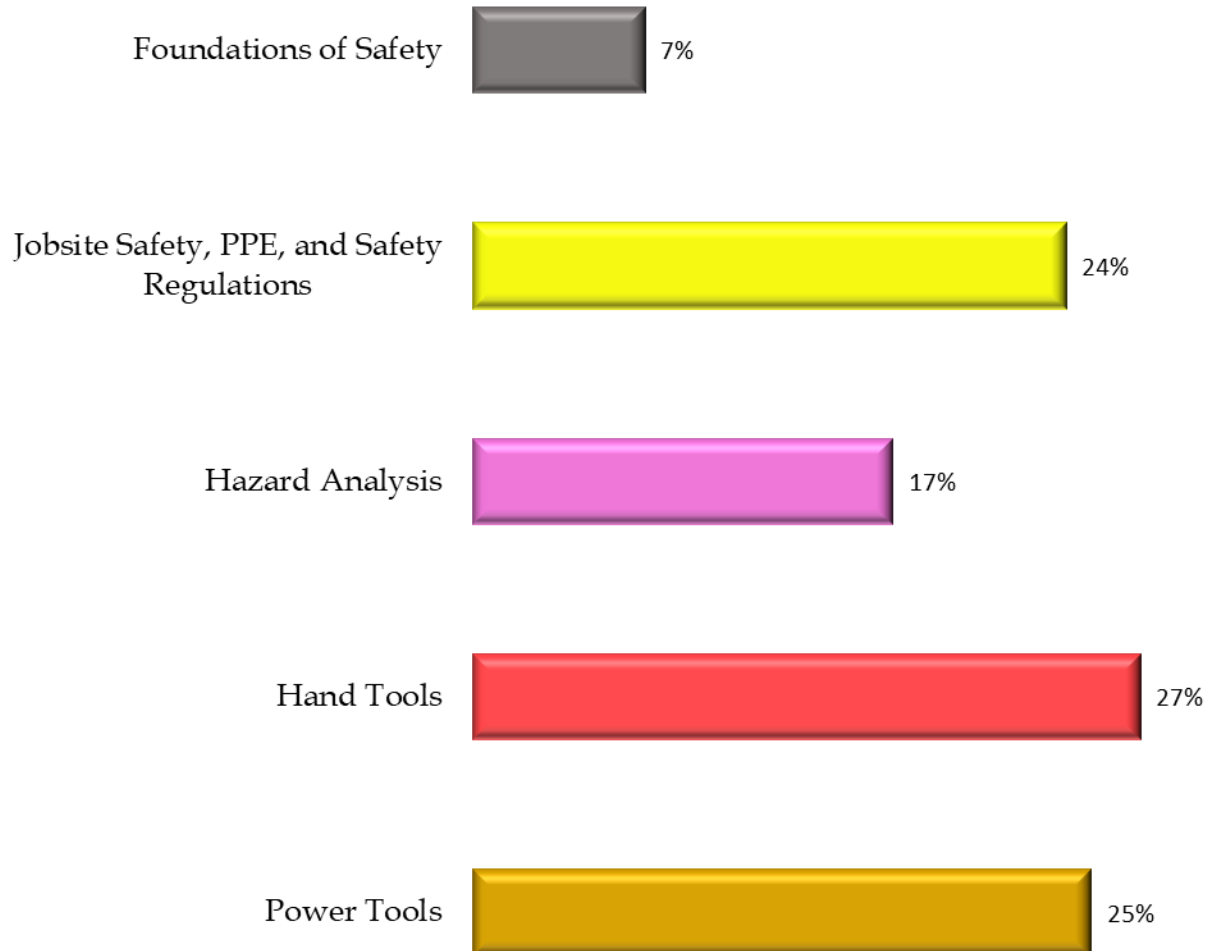


## Written Assessment:

**Administration Time:** 3 hours

**Number of Questions:** 167

### Areas Covered:



## Sample Questions:

Which of these is the top priority of completing a construction project?

- A. ensuring the safety and health of workers
- B. completing the job on time
- C. maximizing profits
- D. completing the job ahead of schedule

The leading cause of fatalities in the construction industry is

- A. falls
- B. nail gun injuries
- C. electrical shock
- D. site fires

What is required when operating an articulated personnel lift?

- A. hard hat
- B. self-retracting life line
- C. safety belt with lanyard
- D. fall protection

Nail pullers operate on the principle of

- A. centrifugal force
- B. inertial force
- C. leverage
- D. acceleration

The purpose of the riving knife on a table saw is to help

- A. prevent kick-back
- B. push wood upwards
- C. prevent tear out
- D. smooth the cut

Most cordless drills have a \_\_\_\_\_ chuck.

- A. right-handed
- B. keyed
- C. keyless
- D. left-handed

## Performance Assessment:

**Administration Time:** 1 hour and 25 minutes**Number of Jobs:** 4**Areas Covered:****19% Circular Saw**

Participant will select and put on appropriate PPE for the job, replace the blade in the saw, mark with a chalk line, rip the board, unplug the saw and clean up work area while adhering to safety procedures throughout the job.

**37% Drill Holes**

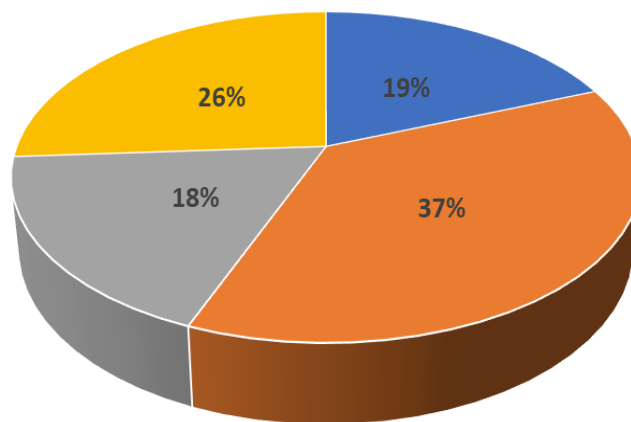
Participant will select and set up proper equipment to drill holes in several types of material, remove the bit when finished, and clean up work area while adhering to safety procedures throughout the job.

**18% Pneumatic Fasteners**

Participant will select and set up proper tools and fasteners for framing, sheathing, and trim, and clean up work area while adhering to safety procedures throughout the job.

**26% Jobsite Hazards**

Participant will identify hazards that are present on a simulated jobsite, correcting hazards, when possible, demonstrate proper safety procedures, and clean up work area while adhering to safety procedures throughout the job.



<b>Sample Job:</b>	Circular Saw
<b>Maximum Time:</b>	20 minutes
<b>Participant Activity:</b>	Participant will alert the evaluator to possible hazards, select and put on appropriate PPE for the job, replace the blade on the saw, mark board with a chalk line, rip the board, unplug the saw, and cleanup work area while adhering to safety procedures throughout the job.