



**National Craft Assessment and Certification Program
S P E C I F I C A T I O N S**

Scaffold Builder v3
AEN31SCFB03
February 2016

Focus Statement

A scaffold builder masters all concepts and procedures involved with scaffold building. This includes handling various conditions in a responsible manner, developing a safety plan, and inspecting scaffold equipment on a regular basis. He/she interprets safety and hazard warnings to ensure the proper handling of scaffolding.

Overview

- Two-hour closed-book examination
- May use a basic function, non-printing calculator
- No extra papers, books, notes or study materials are allowed
- The minimum passing score is 75
- A Performance Verification is available

Study Materials

All NCCER written assessments are referenced to NCCER's curriculum listed in the content. You may

order modules from Pearson (800.922.0579) or from NCCER's Online Catalog at www.nccer.org.

Assessment Development

All questions are developed and approved by subject matter experts under the direction of NCCER and Prov™, NCCER's testing partner.

Credentials

NCCER will send appropriate credentials to the assessment center for successful completions.

Training Prescription Reports

Each candidate will have access to individual results of the written assessment from Prov's website at www.provexam.com.

National Registry

Assessment results will be maintained in NCCER's National Registry and become a portable record of the candidate's training and assessment achievements.

Written Assessment Contents:

Content Domain	Number of Questions
Introduction to the Trade (31101-15)	5
Trade Safety (31102-15)	11
Trade Tools and Equipment (31103-15)	5
Trade Math (31104-15)	8
Supported Scaffolds (31105-15)	20
Mobile Scaffolds (31106-15)	10
Suspension Scaffolds (31107-15)	6
Total Number of Questions	65

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Learning Objectives related to Assessment:

	Introduction to the Trade
Registry ID Number:	Module Title and Objectives:
31101-15	Introduction to the Trade
	1. Explain the scaffolding trade and the trade math and regulations and standards associated with the scaffolding trade. <ol style="list-style-type: none"> Describe the scaffolding trade. Summarize the math applications used in the scaffolding trade. Identify the regulatory agencies in the scaffolding trade and their basic standards.
	2. Identify commonly used scaffolding systems and the safety guidelines associated with each type of system. <ol style="list-style-type: none"> Identify the safety guidelines, characteristics, and applications of stationary scaffolding systems. Identify the safety guidelines, characteristics, and applications of mobile scaffolding systems. Identify the safety guidelines, characteristics, and applications of suspended scaffolding systems.
	3. Identify personal qualities that contribute to job success. <ol style="list-style-type: none"> Describe the responsibilities of a scaffold builder. Describe the attributes of a good scaffold builder.
	4. Explain the apprenticeship training process. <ol style="list-style-type: none"> Describe the types of formal craft training available in the scaffolding industry. Describe the standards associated with an apprenticeship program. Identify the functions of the Bureau of Apprenticeship and Training (BAT). Identify the advantages and benefits of today's apprenticeship training programs.
	Trade Safety
Registry ID Number:	Module Title and Objectives:
31102-15	Trade Safety
	1. Identify the reasons for the Occupational Safety and Health Act (OSHA) regulations that govern the scaffolding industry. <ol style="list-style-type: none"> Explain the development and intent of the regulations and standards. Describe common safety practices used in the scaffolding industry. Identify OSHA's Fatal Four.
	2. Explain the basic guidelines for planning, erecting, and using scaffolding. <ol style="list-style-type: none"> Explain the basic guidelines for planning a scaffolding project. Explain the basic guidelines for erecting a scaffold. Explain the basic guidelines for using a scaffold.
	3. Identify the equipment and tasks required for safe scaffold erection. <ol style="list-style-type: none"> List the personal protective equipment required for safe scaffold erection. Identify the special requirements necessary when working with respiratory equipment.
	4. Identify the fall protection and life-saving measures employed in the scaffolding trade. <ol style="list-style-type: none"> Identify the appropriate fall protection and lifesaving equipment, and describe their proper use. Describe proper rescue procedures after a fall.
	5. Identify common electrical hazards and sources when working with scaffolding. <ol style="list-style-type: none"> Identify common electrical hazards when working with scaffolding. Identify common electrical sources when working with scaffolding.

Trade Tools and Equipment	
Registry ID Number:	Module Title and Objectives:
31103-15	Trade Tools and Equipment
	<ol style="list-style-type: none"> 1. Explain the proper methods of storing, handling, and inspecting scaffolding equipment. <ol style="list-style-type: none"> a. Explain the proper methods for storing scaffolding equipment at the laydown area. b. Explain the proper methods for handling scaffolding equipment. c. Explain the general inspection procedures for equipment of various types of scaffolding systems. d. Explain the procedures for the repair of damaged equipment.
	<ol style="list-style-type: none"> 2. Identify the hand and power tools commonly used by scaffold builders, and describe their proper use. <ol style="list-style-type: none"> a. Identify the hand tools commonly used by scaffold builders, and describe their proper use. b. Identify the power tools commonly used by scaffold builders, and describe their proper use.
	<ol style="list-style-type: none"> 3. Identify the scaffold components used to level scaffolding and demonstrate how to properly use these tools. <ol style="list-style-type: none"> a. Describe the purpose and proper use of screw jacks. b. Describe the general guidelines for properly using jacks.
	<ol style="list-style-type: none"> 4. Describe the proper use of personal fall protection equipment used in the scaffolding industry. <ol style="list-style-type: none"> a. Describe the proper use of vertical and horizontal lifeline systems. b. Describe the proper use of self-retracting lifeline devices.
Trade Math	
Registry ID Number:	Module Title and Objectives:
31104-15	Trade Math
	<ol style="list-style-type: none"> 1. Identify how to calculate the area and linear dimensions of plane surfaces. <ol style="list-style-type: none"> a. Identify how to calculate the area of rectangles and circles. b. Identify how to calculate the perimeter or linear dimensions of structures.
	<ol style="list-style-type: none"> 2. Explain how to reference and use tables commonly used in the scaffolding trade to solve math problems. <ol style="list-style-type: none"> a. Explain how to reference and use comparative value tables. b. Explain how to reference and use mathematical tables.
	<ol style="list-style-type: none"> 3. Identify types of live and dead loads on scaffolding and how to calculate these loads. <ol style="list-style-type: none"> a. Identify common types of live and dead loads. b. Identify how to calculate equipment loads. c. Identify how to calculate human loads. d. Identify how to calculate material loads.
	<ol style="list-style-type: none"> 4. Identify how to calculate loads as to their placement on scaffold platforms. <ol style="list-style-type: none"> a. Identify how to calculate concentrated loads. b. Identify how to calculate distributed loads. c. Identify how to calculate cantilevered loads.
Supported Scaffold	
Registry ID Number:	Module Title and Objectives:
31105-15	Supported Scaffold
	<ol style="list-style-type: none"> 1. Describe the safety considerations regarding stationary scaffolds. <ol style="list-style-type: none"> a. Identify safety regulations for various types of stationary scaffolding systems. b. Explain the importance of a properly installed scaffold foundation.
	<ol style="list-style-type: none"> 2. Identify the basic principles of system scaffolds, and outline proper erection procedures. <ol style="list-style-type: none"> a. Explain the versatility of system scaffolding components. b. Describe various system scaffold connections. c. Outline the steps for proper erection of a system scaffold.

	<p>3. Identify the basic principles of tubular welded frame scaffolds, and outline proper erection procedures.</p> <p>a. Identify common applications of tubular welded frame scaffolds.</p> <p>b. Identify the components of tubular welded frame scaffolding.</p> <p>c. Outline the steps for proper erection of a tubular welded frame scaffold.</p>
	<p>4. Identify the basic principles of tube and clamp scaffolds, and outline proper erection procedures.</p> <p>a. Identify common applications of tube and clamp scaffolds.</p> <p>b. Identify the components of tube and clamp scaffolding.</p> <p>c. Outline the steps for proper erection of a tube and clamp scaffold.</p>
	<p>5. Identify less commonly used stationary scaffolding systems.</p> <p>a. Identify the basic principles of outrigger scaffolds, and outline proper erection procedures.</p> <p>b. Identify the basic principles of pump-jack scaffolds, and outline proper erection procedures.</p>
	Mobile Scaffolds
Registry ID Number:	Module Title and Objectives:
31106-15	Mobile Scaffolds
	<p>1. Describe the operation and common applications of rolling scaffolds.</p> <p>a. Outline proper safety guidelines when using rolling scaffolds.</p> <p>b. Describe the benefits of rolling scaffolds.</p> <p>c. Identify common rolling scaffold applications.</p> <p>d. Identify rolling scaffold components.</p> <p>e. Outline proper rolling scaffold erection.</p>
	<p>2. Describe the proper operation of scissors lifts.</p> <p>a. Identify the proper use of controls and indicators on scissors lifts.</p> <p>b. Describe basic operating procedures and concerns when using scissors lifts.</p>
	<p>3. Describe the operation and common applications of boom lifts.</p> <p>a. Outline proper safety standards when using boom lifts.</p> <p>b. Identify common boom lift applications.</p>
	Suspension Scaffolds
Registry ID Number:	Module Title and Objectives:
31107-15	<p>1. Describe the safety considerations, applications, and components of suspension scaffolds.</p> <p>a. Outline proper safety guidelines for suspension scaffolds.</p> <p>b. Identify common suspension scaffold applications.</p> <p>c. Identify suspension scaffolding components.</p>
	<p>2. Explain the proper methods for rigging suspension scaffolds.</p> <p>a. Explain the proper methods for rigging boatswain's chairs.</p> <p>b. Explain the proper methods for rigging work cages.</p> <p>c. Explain the proper methods for rigging beam suspended scaffolds.</p>