

Introductory Craft Skills: Grades 9, 10, 11, 12

Adopted 2014

Demonstrate appropriate safety procedures in a construction lab

1.1 Apply safe work practices and procedures in accordance with OSHA standards.

1. Explain the importance of a safety culture in the construction crafts and the role of OSHA on the job site. [1.1.1](#)
2. Identify causes of accidents and the impact of accident costs and apply hazard recognition and risk assessment techniques. [1.1.2](#)
3. Explain fall protection, ladder, stair and scaffold procedures and requirements. [1.1.3](#)
4. Demonstrate safe working procedures and requirements. [1.1.4](#)
5. Explain safe work procedures to use around electrical hazards. [1.1.5](#)
6. Demonstrate the use and care of appropriate personal protective equipment (PPE). [1.1.6](#)
7. Explain the importance of hazard communications (HazCom) and Safety Data Sheets (SDSs). [1.1.7](#)
8. Identify other construction hazards on your job site, including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires. [1.1.8](#)

1.2 Recognize hazards and follow safety procedures required for materials handling.

1. Establish a pre-task plan prior to moving a load. [1.2.1](#)
2. Use proper materials-handling techniques. [1.2.2](#)

Understand and utilize contextual math procedures

2.1 Apply basic mathematical procedures to related tasks.

1. Add, subtract, multiply, and divide whole numbers, fractions, and decimals with and without a calculator. [2.1.1](#)
2. Use a standard ruler, a metric ruler, and a measuring tape to measure. [2.1.2](#)
3. Convert decimals and fractions to percentages and percentages to decimals. [2.1.3](#)

2.2 Investigate the metric system and apply its use to construction tasks.

1. Explain what the metric system is and how it is important in the construction trade. [2.2.1](#)
 2. Recognize and use metric units of length, weight, volume, and temperature. [2.2.2](#)
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2.3 Apply geometry concepts to construction tasks.

1. Recognize basic shapes used in construction. [2.3.1](#)
 2. Apply basic geometry to measure basic construction shapes. [2.3.2](#)
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Demonstrate safe use of industry tools

3.1 Safely use and maintain common and/or specialized hand tools.

1. Recognize and identify some of the basic hand tools and their proper uses in the construction trade. Visually inspect hand tools to determine if they are safe to use. Safely use hand tools [3.1.1](#)
 2. Demonstrate safe use of hand tools. [3.1.2](#)
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3.2 Safely use and maintain common and/or specialized power tools.

1. Identify power tools commonly used in the construction trades. [3.2.1](#)
 2. Demonstrate proper use and maintenance of power tools. [3.2.2](#)
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Construction drawings and uses in the industry

4.1 Interpret different types of construction drawings using the terms, components, and symbols of construction drawings.

1. Recognize and appropriately use basic construction drawing terms, components, and symbols. [4.1.1](#)
 2. Interpret different classifications of construction drawings. [4.1.2](#)
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4.2 Prepare construction drawings using the terms, components, symbols, and dimensions of construction drawings.

1. Interpret and use drawing dimensions. [4.2.1](#)
 2. Draw a blue print using the symbols and components of a construction drawing. [4.2.2](#)
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Develop employability skills needed for the construction industry

5.1 Develop the basic soft skills of the industry trade including reading, writing, listening, and speaking.

1. Interpret information and instructions presented in both verbal and written form. [5.1.1](#)
2. Communicate effectively in on-the-job situations using verbal and written skills. [5.1.2](#)
3. Communicate effectively on the job using electronic communication devices. [5.1.3](#)

5.2 Develop the interpersonal skills that are needed to succeed in the construction industry.

1. Explain the role of an employee in the construction industry. 5.2.1
2. Demonstrate critical thinking skills and the ability to solve problems using those skills. 5.2.2
3. Demonstrate knowledge of computer systems and explain common uses for computers in the construction 5.2.3
4. Demonstrate effective relationship skills. 5.2.4
5. Recognize workplace issues such as sexual harassment, stress, and substance abuse. 5.2.5