



# 2022-2023

## Technical Skills Assessment

### Construction Trades

## Results by Standard

Legend (%)		
0-50%	51-75%	76-100%

<b>Assessment:</b> Construction Trades	<b>% Correct</b>	<b>% Correct</b>	<b>% Correct</b>
<b>Number tested:</b> 104	<b>20-21</b>	<b>21-22</b>	<b>22-23</b>
<b>CONTENT STANDARD 1.0: INDUSTRY SKILLS AND HABITS</b>	63.92%	67.25%	74.36%
<b>Performance Standard 1.3: OSHA Standards</b>	63.92%	67.25%	74.36%
1.3.1 Define the purpose of OSHA.	97.94%	97.37%	97.12%
1.3.3 Describe the record keeping requirements for OSHA compliance.	38.14%	43.86%	59.62%
1.3.4 List safety and health hazards that OSHA may inspect for in a shop or on a job site.	61.86%	65.57%	72.36%
<b>CONTENT STANDARD 3.0: MATH AND MEASUREMENT SKILLS</b>	71.55%	72.22%	76.12%
<b>Performance Standard 3.1: Basic Math</b>	77.84%	73.03%	75.24%
3.1.1 Identify terms associated with basic math.	73.54%	67.84%	69.87%
3.1.2 Identify symbols used in math problems.	90.72%	88.60%	91.35%
<b>Performance Standard 3.2: Mathematical Operations Using Whole Numbers.</b>	89.35%	88.60%	92.31%
3.2.1 Label the place values of a whole number.	90.21%	89.47%	93.27%
3.2.2 Add, subtract, multiply, and divide whole numbers.	87.63%	86.84%	90.38%
<b>Performance Standard 3.3: Fractions, Decimals and Percentages</b>	75.60%	75.24%	81.62%
3.3.1 Distinguish among types of fractions.	76.80%	78.51%	82.69%
3.3.2 Reduce fractions to lowest terms.	75.26%	75.00%	86.54%
3.3.5 Add, subtract, multiply, and divide fractions.	62.20%	61.99%	67.95%
3.3.8 Convert decimal fractions to common fractions.	94.85%	92.11%	96.15%
<b>Performance Standard 3.4: Basic Geometry</b>	48.45%	53.07%	53.61%
3.4.4 Calculate the area of geometric figures.	45.88%	48.68%	48.56%
3.4.6 Estimate cubic yards.	51.03%	57.46%	58.65%
<b>Performance Standard 3.5: Measuring Operations</b>	69.28%	71.93%	75.67%
3.5.1 Identify terms associated with measuring.	34.54%	37.28%	44.23%
3.5.2 Identify basic measuring tools used by carpenters.	83.51%	82.89%	87.50%
3.5.8 Read measurements on tapes.	89.18%	92.98%	89.90%

Assessment: Construction Trades	% Correct	% Correct	% Correct
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3.5.9 Demonstrate the ability to use basic measuring tools and the 3-4-5 method to lay out the perimeter of a building.	69.59%	73.25%	78.37%
<b>CONTENT STANDARD 5.0: USE AND MAINTENANCE OF HAND AND POWER TOOLS</b>	69.39%	66.86%	74.41%
<b>Performance Standard 5.1: Common Carpentry Hand Tools</b>	69.07%	69.74%	73.24%
5.1.1 Explain the care and safe use of hand tools.	62.89%	58.77%	69.23%
5.1.2 Identify and match carpentry hand tools to their correct uses.	70.31%	71.93%	74.04%
<b>Performance Standard 5.2: Power Tools</b>	69.50%	65.84%	74.83%
5.2.1 Identify terms associated with power tools.	51.03%	45.61%	63.46%
5.2.2 Explain the general safety rules pertaining to power tools.	64.43%	62.28%	75.00%
5.2.3 Explain how to maintain power tools properly.	84.54%	78.07%	79.81%
5.2.4 Explain the safe operation for portable and stationary power tools.	71.48%	64.33%	76.92%
5.2.5 Explain rules for the safe use of pneumatic fasteners.	90.21%	87.28%	93.75%
5.2.8 Match saw blades to their correct uses.	45.36%	55.26%	61.06%
5.2.9 Complete a safety test for specific tools.	85.05%	83.77%	87.98%
5.2.10 Perform rip and miter cut-off operations.	62.89%	50.88%	59.62%
<b>CONTENT STANDARD 6.0: SITE PREPARATION, CONCRETE FORMS AND FORMING</b>	65.46%	70.18%	74.04%
<b>Performance Standard 6.1: Leveling Instruments</b>	75.26%	78.51%	78.37%
6.1.11 Locate and square corners.	75.26%	78.51%	78.37%
<b>Performance Standard 6.2: Concrete Footings and Foundations</b>	55.67%	61.84%	69.71%
6.2.11 Calculate the cubic yards of concrete needed to pour a structure.	55.67%	61.84%	69.71%
<b>CONTENT STANDARD 7.0: FRAMING</b>	63.09%	61.40%	67.64%
<b>Performance Standard 7.1: Floors and Sills</b>	59.28%	55.26%	64.42%
7.1.2 Identify floor and sill framing and support members.	59.28%	55.26%	64.42%
<b>Performance Standard 7.2: Floors and Sill Installation</b>	58.76%	55.70%	70.19%
7.2.1 Demonstrate the ability to lay out a floor system.	58.76%	55.70%	70.19%
<b>Performance Standard 7.3: Wall and Partition Members</b>	63.40%	61.99%	64.74%
7.3.1 Identify and describe the function of the wall framing members.	74.74%	76.75%	80.77%
7.3.5 Calculate rough opening (R.O.) dimensions for doors.	70.62%	67.54%	70.19%
7.3.7 Calculate the length of headers for rough openings.	44.85%	41.67%	43.27%
<b>Performance Standard 7.4: Frame a Single-story Structure</b>	64.54%	63.42%	69.52%
7.4.1 Demonstrate the ability to lay out a wall and partition locations on a floor.	73.71%	74.56%	81.25%
7.4.2 Cut studs, trimmers, cripples, and headers to length.	41.24%	47.37%	50.00%
7.4.3 Assemble corners, Ts, and headers.	36.60%	39.04%	45.67%

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7.4.4 Construct wall sections for a single-story structure.	89.18%	78.51%	86.54%
7.4.5 Erect and brace wall sections for a single-story structure.	81.96%	77.63%	84.13%
<b>CONTENT STANDARD 8.0: ROOF CONSTRUCTION TECHNIQUES</b>	55.88%	55.53%	63.85%
<b>Performance Standard 8.2: Construct a Roof</b>	53.87%	54.50%	62.38%
8.2.1 Estimate material needed to frame a roof.	53.09%	54.39%	53.37%
8.2.2 Lay out rafter locations on top plate and ridge board.	59.28%	57.02%	72.12%
8.2.4 Apply roof sheathing.	46.91%	51.75%	57.21%
8.2.5 Erect trusses by hand and or light crane.	56.19%	54.82%	66.83%
<b>Performance Standard 8.4: Roofing Materials</b>	63.92%	59.65%	69.71%
8.4.2 Discuss safety rules pertaining to roofing.	63.92%	59.65%	69.71%
<b>CONTENT STANDARD 9.0: INTERIOR STAIRCASE CONSTRUCTION</b>	53.95%	61.11%	64.42%
<b>Performance Standard 9.2: Staircase Construction</b>	53.95%	61.11%	64.42%
9.2.1 Calculate number and size of risers and treads for a stair of given dimensions.	53.95%	61.11%	64.42%
<b>CONTENT STANDARD 11.0: WINDOWS, EXTERIOR AND INTERIOR DOORS, AND ASSOCIATED TRIM</b>	34.54%	32.46%	38.94%
<b>Performance Standard 11.2: Window Unit Installation</b>	34.54%	32.46%	38.94%
11.2.2 Demonstrate the ability to install various window units.	34.54%	32.46%	38.94%
<b>CONTENT STANDARD 13.0: JOB COORDINATION</b>	66.49%	72.37%	71.63%
<b>Performance Standard 13.2: Inspection and Code Requirements</b>	66.49%	72.37%	71.63%
13.2.1 Explain the purpose of Building Codes.	66.49%	72.37%	71.63%