Grade 9-12 Construction Core, Quarter 4, Revised 2014-15

Big Ideas/Key Concepts: Implement Construction Math Skills, Hand and Power Tools

Students will make and lay out linear and angular measurements.
Students will transfer mathematics concepts to solve problems encountered in the construction industry.
Students will identify, select, inspect, safely use, maintain, and store hand tools.
Students will identify, select, inspect, safely use, maintain, and store power tools.

<table>
<thead>
<tr>
<th>Standards</th>
<th>Student Friendly “I Can” Statements</th>
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| **Standard 8:**  
Students will make and lay out linear and angular measurements |  
8.1 Makes accurate linear measurements.  
8.2 Makes accurate angular measurements  
8.3 Makes accurate two-dimensional layouts specified with linear and angular dimensions.  
8.4 Makes accurate three-dimensional layouts specified with linear and angular dimensions |  
• I can read a tape  
• I can make accurate two-dimensional layouts  
• I can apply geometric and algebraic concepts to construction  
• I can read plan  
• I can draw a house plan  
• I can layout a foundation  
• I can apply geometric and algebraic concepts to construction  
• I can amortize a payment plan  
• I can demonstrate the proper use of striking tools  
• I can demonstrate the proper use of cutting tools  
• I can demonstrate the proper use of leveling and squaring tools |

**Standard 9:**  
Students will transfer mathematics concepts to solve problems encountered in the construction industry.

9.1 Apply geometric and algebraic concepts to calculations of areas and volumes from construction drawings.  
9.2 Apply rate-of-change concepts to construction problems.  
9.3 Estimate error propagation in calculations due to uncertainty in measurements.  
9.4 Analyze the effect of interest rates on the cost of construction |
<table>
<thead>
<tr>
<th>Standard 6:</th>
<th>Standard 7:</th>
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<tbody>
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6.1 Demonstrate the proper use of striking tools.
6.2 Demonstrate the proper use of cutting tools.
6.3 Demonstrate the proper use of torque producing tools.
6.4 Demonstrate the proper use of leveling and squaring tools.
6.5 Demonstrate the proper use of grinding and shaping tools.
6.6 Demonstrate the proper use of clamping tools.
6.7 Demonstrate the proper use of pulling and lifting tools

- I can demonstrate the proper use of clamping tools