Needs Driving NOCTI CSTN 100 Assessment

• College readiness
  – Technical skills vs Academic Skills
  – Technical skill assessment more difficult

• Dual Enrollment
  – College for High School Credit

• Technical Skill Assessment in General
  – Requirement of RPOS and Perkins
Keys to Assessment Development

• 1. Subject Matter Experts
  – Whose teaching the class
    • Secondary
    • Postsecondary
    • Industry

• 2. Experts in assessment
  – Validity and Reliability
  – NOCTI
Subject Matter Experts

• Secondary Construction Teachers
• Postsecondary Construction Teachers
• Industry
  – Home Builders Association
  – Montana Contractors Association
  – Individual organizations
## MONTANA QUESTION WRITING ASSIGNMENTS

Please email by Monday, Oct 29, 1 pm

<table>
<thead>
<tr>
<th>D</th>
<th>Hazard Analysis</th>
<th>NEED</th>
<th>HAVE</th>
<th>WRITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-13</td>
<td>Identify causes of accidents and the impact of accident costs.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>D-14</td>
<td>Define hazard recognition and risk assessment techniques.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>D-16</td>
<td>Identify caught-in-between hazards and demonstrate safe working procedures and requirements.</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E</th>
<th>Hand Tools</th>
<th>NEED</th>
<th>HAVE</th>
<th>WRITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-21</td>
<td>Exhibit understanding of the basic procedures for taking care of hand tools.</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>E-31</td>
<td>Demonstrate understanding of the use of rules and measuring tools (e.g., tape, laser)</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>E-32</td>
<td>Demonstrate understanding of the use of plumb bob and chalk lines.</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>
The Ingredients of a Multiple-Choice Item

What ingredient is needed in order to produce self-rising flour?  

Stem

Answer

*A. baking powder

B. baking soda

C. corn starch

D. cream of tartar

Alternatives

Distractors

The Recipe to Creating a Good Item

(General Guidelines)

1. Simply and briefly state the problem; don’t use long, complex sentences or include extra or unnecessary information.
2. Ensure that items are independent of each other. An answer or clue in one item should not provide the answer to another item.
3. Create alternatives that are equal in length.
4. Construct alternatives that are reasonable; avoid silly or obviously incorrect responses.
5. Ask the problem in the stem and make responses short; avoid creating
Analyze Pilot Test Results

Establish Cut Score (Benchmark)

Review and Incorporate Edits

Finalize Assessment
NOCTI®
Assessment Development

1. Develop Standards and Competencies
2. Develop Assessment Blueprint
3. Develop Items and/or Performance Jobs
4. Pilot Assessment
5. Analyze Pilot Test Results
6. Establish Cut Score (Benchmark)
7. Review and Incorporate Edits
8. Finalize Assessment
# Group Score Report

**Site:** City College Montana State University Billings - 5142  
**Test Date:** 04/24/2013

## Fundamentals

### Written - Cognitive

<table>
<thead>
<tr>
<th>Duty #</th>
<th>Duty Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Foundations of Safety</td>
</tr>
<tr>
<td>2</td>
<td>Jobsite Safety and Safety Regulations</td>
</tr>
<tr>
<td>3</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>4</td>
<td>Hazard Analysis</td>
</tr>
<tr>
<td>5</td>
<td>Hand Tools</td>
</tr>
<tr>
<td>6</td>
<td>Power Tools</td>
</tr>
</tbody>
</table>

## Performance - Psychomotor

<table>
<thead>
<tr>
<th>Job #</th>
<th>Job Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Circular Saw</td>
</tr>
<tr>
<td>2</td>
<td>Drill Holes</td>
</tr>
<tr>
<td>3</td>
<td>Pneumatic Fasteners</td>
</tr>
<tr>
<td>4</td>
<td>Job Site Hazards</td>
</tr>
</tbody>
</table>

Total