

### TEMPLATE: Contextualized Learning Activities (CLAs)

For the “other required credits” in the bundle of credits, students in a Specialist High Skills Major program must complete learning activities that are contextualized to the knowledge and skills relevant to the economic sector of the SHSM. Contextualized learning activities (CLAs) address curriculum expectations in these courses.

This template must be used to describe the CLAs. The completed form must be submitted to the Ministry of Education for approval.

Submit all material in Microsoft Word.

Contact Information		
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Development date	July 2010	
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Specialist High Skills Major	<i>Construction</i>
Course code and course title	MAP 4CI - Foundations for College Mathematics, College Preparation
Name of contextualized learning activity/activities	Sinking in Cement
Brief description of contextualized learning activity/activities	Students will use their measurement skills to determine the amount of materials required to pour various concrete improvements around the house including providing the customer with a final quote.
Duration	<i>6 classes</i>

<b>Overall expectations</b>	<b>Geometry and Trigonometry</b> <b>1.</b> solve problems involving measurement and geometry and arising from real-world applications;
<b>Specific expectations</b>	<b>1.1</b> perform required conversions between the imperial system and the metric system using a variety of tools, as necessary within applications <b>1.2</b> solve problems involving the areas of rectangles, triangles, and circles, and of related composite shapes, in situations arising from real-world applications <b>1.3</b> solve problems involving the volumes and surface areas of rectangular prisms, triangular prisms, and cylinders, and of related composite figures, in situations arising from real world applications
<b>Catholic graduate expectations (if applicable)</b>	<b>CGE7i</b> -respects the environment and uses resources wisely; <b>CGE5g</b> -achieves excellence, originality, and integrity in one's own work and supports these qualities in the work of others; <b>CGE5h</b> -applies skills for employability, self-employment and entrepreneurship relative to Christian vocation. <b>CGE5b</b> -thinks critically about the meaning and purpose of work;
<b>Essential Skills and work habits</b>	<i>Check off the Essential Skills and work habits that are addressed in this CLA.</i> <ul style="list-style-type: none"> <li>√ Reading Text</li> <li>• Writing</li> <li>√ Document Use</li> <li>√ Numeracy <ul style="list-style-type: none"> <li>○ Money Math:</li> <li>○ Scheduling or Budgeting and Accounting:</li> <li>○ Measurement and Calculation:</li> <li>○ Data Analysis:</li> <li>○ Numerical Estimation:</li> </ul> </li> <li>√ Thinking Skills <ul style="list-style-type: none"> <li>○ Job Task Planning and Organizing</li> <li>○ Decision Making</li> <li>○ Problem Solving</li> <li>○ Finding Information</li> </ul> </li> <li>• Reliability</li> <li>√ Working Independently</li> <li>• Initiative</li> <li>• Self-advocacy</li> </ul>

## Instructional/Assessment Strategies

### Teacher's notes

*The notes for this unit are on power point, you may need to print them off if you do not have access to a computer. You may also want to put the house plan on an overhead for the students to see. The assignment can be given out at your discretion; I would put the three plans on an overhead and let the students choose which one they want to do to reduce photocopying. Be prepared to estimate numbers if some of the student plans involve measurements that are not given. It also might be useful to handout copies of the first house plan to the students to look at and make reference to as you work through the solutions.*

### Context

This CLA is designed for students that plan on transitioning into Post Secondary Education / College/ Apprenticeship with an emphasis in the Construction sector. For those students who love building and have inquiring minds, being involved with the Construction Industry is a possible career.

The highly specialized teams that are involved in the day-to-day operations of any type of Construction include the following jobs: Owners, Civil and Structural Engineer, Estimator, Equipment Operator, Trades Person, Site Supervisors and managers, sales and marketing personnel.

Mathematics, Sciences and English are required courses and technology courses are recommended at the high school level to prepare the student for the Construction industry.

### Strategies

*There are four days of power point presentations. Each day the students have an example and are asked to try one on their own before taking it up. The assignment will cover ideas that were presented in the lessons and should have a step by step process to walk them through. The assignment is independent.*

## Assessment and Evaluation of Student Achievement

- Students will have the opportunity to practice sample questions while the lessons are being presented. The teacher will observe and assist where necessary.
- Students will have a major summative assignment which will asses what they have been taught and have been practicing in class as well as provide for some individuality to take on an area of interest.

<b>Strategies/Tasks</b> <i>(add rows as required)</i>	<b>Purpose</b> <i>Assessment for Learning (diagnostic, formative)</i> <i>Assessment of Learning (summative, evaluation)</i>
1. Day 1 – conversion and calculation	Assessment for learning - Formative
2. Day 2 – conversion and calculation	Assessment for learning - Formative
3. Day 3 – conversion and calculation	Assessment for learning - Formative

4. Day 4 – conversion and calculation	Assessment for learning – Formative
5 Day 5-6 - Assignment	Assessment of Learning - Summative
<b>Assessment tools</b> <i>Observation during class trial periods.</i> <i>Rubric for assignment (is attached to the assignment)</i>	

### Additional Notes/Comments/Explanations

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### Resources

*(List all the resources needed to support the implementation of the CLA.)*

<b>Authentic workplace materials</b> <i>Current price charts can be obtained from Home Depot or Rona</i>
<b>Human resources</b>
<b>Print</b>
<b>Video</b>
<b>Software</b> Microsoft excel Power point Microsoft word
<b>Websites</b> www.quikreet.com
<b>Other</b>

### Accommodations

Students can use a computer to help them access current information or additional lessons.  
The teacher can provide a template for the students to follow to help them with their calculations (ie. Materials checklist)  
Teacher can reduce number of requirements in the assignment.  
Teacher can provide easier house plans for students who are struggling.

### List of Attachments

- √ 4 Power point presentations
- √ Assignment
- √ House Plan
- √ House plan day #2
- √ Materials checklist
- √ Outline
- √ Price List