

## Lab Framework

**Text:** *CORD MATHEMATICS: A Contextual Approach to Algebra I*

**Unit number and title:** *Unit 3: Measuring in U.S. and Metric Units*

**Short Description:** *Calculate the estimated cost to repaint the classroom walls. The students will not be able to use traditional measurement devices, but rather use their knowledge of known objects in the room. (each computer table is 5.5 ft long)*

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**Date:** *June 28, 2011*

## Lab Title Paint the Room

### LAB PLAN

**TEACHER:** Teacher Prep/ Lesson Plan

- **Lab Objective**  
Students will be able to estimate the cost of painting my classroom without using a traditional measuring device. They will have to use objects nearby that have known measurements (ie. Computer table 5.5 ft long, 17" computer monitors, etc)
- **Statement of pre-requisite skills needed** (i.e., vocabulary, measurement techniques, formulas, etc.)  
Formulas for area and perimeter, calculator, basic math and writing skills.
- **Vocabulary**  
Measure, instruments, estimate, area, perimeter
- **Materials List**  
Current price of one gallon of paint (1 gallon covers 350 sq. ft). Color doesn't matter, but I prefer crimson and grey (Go Cougs!), handout, pencil, paper.
- **State Standards addressed**  
Math: A1.2.D  
Reading: 2.1.3, 2.1.5  
Writing: 3.3
- **Leadership Skills**  
Students will work in groups of two. Students will have to work together to gather accurate measurements.
- **SCAN Skills/Workplace Skills**  
Writing B. Records information completely and accurately.
- **Set-up information**  
Students will be given limited information about the measurements of various objects around the room. They will be asked to estimate the cost of repainting my classroom based on plugging their estimated measurements into the appropriate formulas (learned in previous lesson)
- **Lab organization** (-Grouping/leadership opportunities/cooperative learning expectations; -**Timeline required**)  
-Students will be in groups of 2-3  
-This activity should take one 55 min. class period.
- **Teacher Assessment of student learning** (scoring guide, rubric)  
Students grades will be based on scoring rubric. (effort, appropriate formulas)
- **Summary of learning** (to be finished after student completes lab)  
I will provide the correct answer followed by a classroom discussion.

- How close were the students' estimates?
- If they were incorrect, what aspect of their data failed them?
- What were some tricks groups picked up along the way?

- **Optional activities**

Students can do the same activity with almost anything (their own rooms, house, etc.)

- **Career Applications**

These skills are valuable in a number of career fields (construction, painting, art, business, etc.)

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**LAB TITLE:** \_\_\_\_\_  
**STUDENT INSTRUCTIONS:**

- **Statement of problem addressed by lab**
- **Grouping instructions and roles**
- **Procedures** – steps to follow/instructions
- **Outcome instructions**
- **Assessment instructions** (peer-teacher)

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## Lab Data Collection

Student: \_\_\_\_\_ Date: \_\_\_\_\_

Unit: \_\_\_\_\_

Lab Title:

Criteria: Write the problem/objective in statement form

Data Collection: Record the collected/given data

Calculations: Complete the given calculations to solve for an answer(s)

Summary Statement:

Other Assessment(s)

Washington  
Applied  
Math  
Council

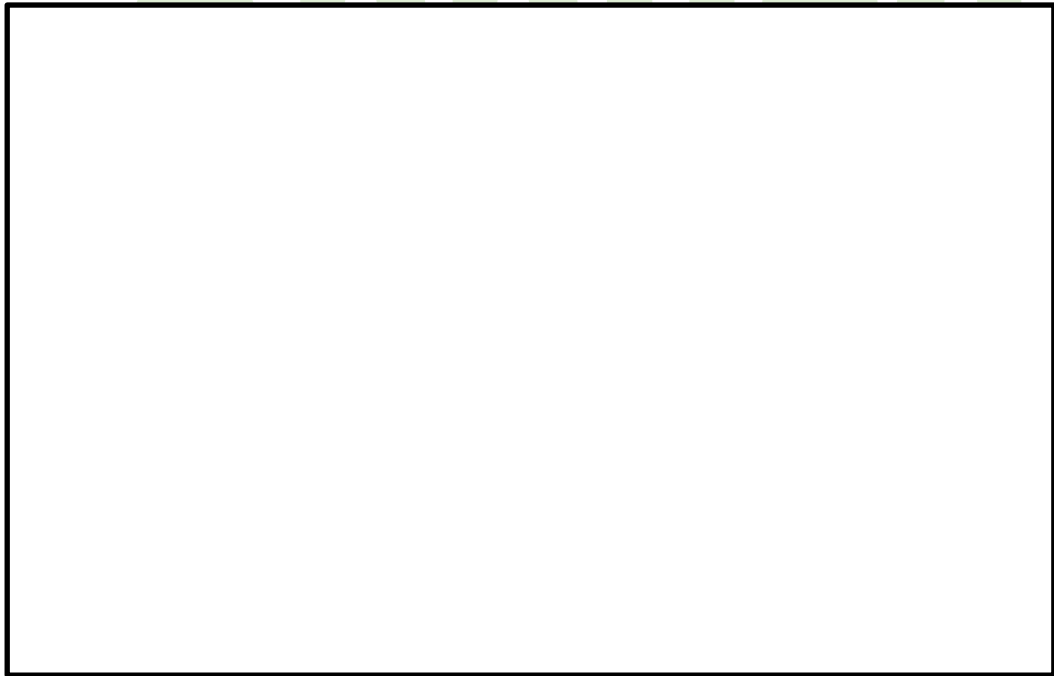
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# PAINT THE CLASSROOM

# Washington

(Hint: make sure to mark where the doors and windows are on the diagram)

Wall #1 Dimensions:



Wall #3  
Dimensions

Wall #2  
Dimensions:

Wall #4 Dimensions:

Calculations, Formulas and other work