

## Lab

Text: Cord Applied Mathematics

Unit 3, Measuring in English and Metric Units

Short Description: A measurement, calculation and hand saw lesson

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### I MEASURE; I SAW

-Objective: This lesson will help students learn how to

Read measurements taken with common measuring tools.

Use tools to measure quantities and solve problems that involve these measurements.

-Pre-requisite skills: Students need to know how to read a rule/tape measure

-Vocabulary: Perimeter, area

-Materials List: 1X6 pine steel rule w/ inches pencil handsaw

-GLE's: Math 1.2.1, 1.2.2, 1.3.1

-Leadership Skills: Individual Skills 1.4, 3.7 (cleanup)

-Set up Information: tools and instruction (directions)

-Lab Organization:

Give each pair of students a 1x6x20" pine board, a pencil, a rule, a saw, and a set of measurements for layout

Measurements: W – 5.5" (which will be the width of the board)

H – 7" at center - a mark here as the apex of a triangle

5" marks at each side

< - draw diagonal lines from the 7" mark to each 5" mark on the sides.

The layout creates a 5.5"X5" rectangle with a 2" high isosceles triangle above.

Layout these measurements from each end of the board. This will create two layouts. Each of the paired students cuts out one of these shapes with a handsaw.

Each student measures the perimeter of one piece, marking the measurements of each side on the piece. Each student computes the area of the shape (breaking the shape visually into rectangle and triangles will be helpful), showing computation and answer on the shape. Each student writes her/his name on the shape.

Note: this is one step in a larger box project, working with hand tools. K

-Assessment: Teacher scores measurement, computation, cut neatness, and completion.

-Summary: Students share difficulties with handsaw operation

Students share method(s) of computation

-Optional activity: Continue project

-Career Application: Discuss why we use power tools

Discuss the process of eye-hand coordination and skills development

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