

Lab Framework

Text: CORD

Unit number and title: Unit 3, Measuring in English and Metric Units

Short Description: Measuring lengths, converting from English to metric.

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Date: 6/23/2010

Measuring in inches and centimeters

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

Lab Objectives

Students will demonstrate ability to measure lengths of shapes, and convert to metric.

Statement of pre-requisite skills needed (i.e., vocabulary, measurement techniques, formulas, etc.)

Students will know how to measure with a tape measure or ruler, record data, and understand a conversion chart.

Lesson Objectives

Involve students in using problem-solving skills, while better understanding conversions between two systems.

Statement of pre-requisite skills needed

Using tape measures, measuring skills, team and communication skills, addition, conversion skills

Materials List

paper, door, desk, pencils, conversion chart

New Vocabulary:

width, length, centimeters, inches, feet, division, fractions

State Standards addressed:

Math: (Math)1.1, 1.2, 1.1.8

Reading: (Reading) 1.2, 1.3, 2.1.6

Writing: (Writing)1.3, 2.2, 2.4

Set-up information (Remind students to follow these basic rules.)

paper, tape measures, conversion table hand-outs, desks, pencils,

Teacher Assessment of student learning (scoring guide, rubric)

Students will correctly measure the length of a desk, and convert the measurement from feet to meters.

Summary of learning

Students will demonstrate how to measure and convert measurements to a different system (English to Metric).

– **Optional activities**

Leadership: Discussion of what was learned and is it relevant for future careers?

– **Career Applications**

– **Careers involving measurements might be: architecture, engineering, research and development, construction,**

• **SCAN Skills/Workplace Skills**

A. Performs basic computations

B. Uses basic numerical concepts such as whole numbers and percentages in practical situations

C. Makes reasonable estimates of arithmetic results without a calculator

D. And uses tables, graphs, diagrams, and charts to obtain or convey quantities information

• **Lab organization**(-Grouping/leadership opportunities/cooperative learning expectations; -
Timeline required)

one period, one day

• **Teacher Assessment of student learning** (scoring guide, rubric, and discussion)

Students will measure the table, record the dimension, and convert from English to Metric system, and record all data.

• **Summary of learning** (to be finished after student completes lab)

-discuss real world application of learning from lab

-opportunity for students to share/present learning

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LAB TITLE: Measuring in inches and centimeters

STUDENT INSTRUCTIONS:

- **Statement of problem addressed by lab**

By measuring a length, and converting from English to metric systems, students will better understand how and why conversions work.

- **Grouping instructions and roles**

Students in groups of twos or threes and they alternate who measures and records.

- **Procedures** – steps to follow/instructions

1. Hand out instructions

Pick up equipment for lab

Decide who measures the tables

Decide which student does the recording

Measure lengths

Convert with conversion table and equations

Record

Put details on main board

- **Outcome instructions**

Compare measurements with rest of teams.

Discuss importance of precise measurements.

Discuss the purpose for measurement systems.

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)

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