Lab Framework

How many gulps does it take to get to the bottom?
Estimating Answers

Submitted by: John Devlin
Short Description: Unit Two
Students estimate how many gulps it takes to drink a 20 fl oz soda, and a liter.

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- Lab Objective
  Make rough estimates

- Statement of pre-requisite skills needed (i.e., vocabulary, measurement techniques, formulas, etc.)
  Drinking soda
  Enter numbers into a calculator and read the output displayed by a calculator

- New Vocabulary
  Liter
  Fluid Ounce
  Carbonation
  Coke
  Caffeine
  Calories

- Materials List
  20 fl oz of coke
  1 lite of coke
  2 victim per group with a large bladder
  Worksheet
  Calculators

- GLE's addressed

  5.1.1 Apply multiple mathematical concepts and procedures in a given problem or situation

  2.2.2 Apply mathematical tools to solve the problem

- Set-up information

  Purchase of coke (20 fl oz and 1 liter)

  Worksheets available

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

  Group of 4 students

  Completion of lab within one class period

- Teacher Assessment of student learning(scoring guide, rubric)

  Completion of worksheet

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

  -discuss real world application of learning from lab

  -opportunity for student to share/present learning

  Estimating for real world application such as tipping your waitress/waiter.

  Ability to look at a product and determine how much you will need.

- Career Applications
  1. General
  2. Business and Marketing
  3. Home Economics
  4. Industrial Technology

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LAB TITLE: How many gulps does it take to get to the bottom?
STUDENT INSTRUCTIONS:

1. Statement of problem addressed by lab

Estimate how many gulps does it take to get to the bottom of a 20 fl oz coke and 1 liter of coke?

2. Grouping instructions – roles

Groups of 4 students
Two students drink the different sizes of coke
Two students tallies gulps

3. Procedures – steps to follow/instructions
- Calculate an estimate of how many gulps it will take to get to the bottom of both coke sizes. (gulp sizes are about 0.85 fl oz)
- Drink coke and tally gulps per coke size
- Record answer
- Check estimate with calculations

4. Outcome instructions
- Comparison of estimated answer to actual gulps

5. Assessment instructions(peer-teacher)

Competition of worksheet

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)