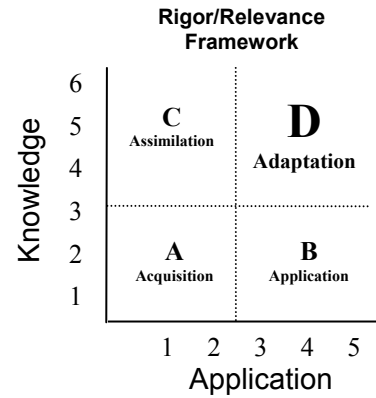




Gold Seal Lesson

# OWN YOUR OWN BUSINESS



## Subject

MATHEMATICS

Grades 9-12

## Instructional Focus

**Problem Solving:** Students apply the process of mathematical modeling to real-world problem situations.

**Statistics:** Students collect, analyze, and interpret data.

**Communication:** Students express math ideas in writing.

**Entrepreneurship:** Students identify components of owning a business.

**SCANS:** Students identify, organize, plan, and allocate resources.

## Performance Task

Owning a business is an appealing opportunity that many students would like to try. This lesson allows students to use real-life math skills to address problems that entrepreneurs experience. The task can be described to the students as follows:

1. You are opening a retail or service oriented business related to your vocational program.
  - Name your business.
  - Determine what product(s) or service(s) you will market from the outset.
  - Determine start up costs. Some factors to consider could include the number of employees, salary and benefits offered to employees, rental space of a building, initial advertising, and initial stocking of merchandise.
2. Determine the normal operating costs for a single month. Consider ALL factors!
3. Assuming you are granted a 12 month loan at 9.75% interest on the start up costs, determine how much money you will need to earn per month to repay all debts and be able to produce a profit at the end of that year.
4. All data amounts MUST be organized in table format. You will probably need an organized table for each step indicated above on a spreadsheet. Importing a spreadsheet into a word processing document is a nice touch but is not mandatory. Both writing and mathematics are required elements for this task.

## Scoring Guide

- 4 POINTS:** The student completes the task independently. He/she calculates the costs and profits. He/she considers all factors in owning a business. He/she uses technology to organize the information into a usable table.
- 3 POINTS:** The student needs coaching to set goals. He/she considers most factors in owning a business. He/she calculates the payment and profits with minimal errors. He/she is fairly organized using technology.
- 2 POINTS:** The student needs coaching throughout the entire task in order to complete required work. He/she considers some factors in owning a business. He/she demonstrates limited understanding of calculating loans and profits. The student's work is not well organized and contains one major error. He/she is not able to use technology appropriately.
- 1 POINT:** The student is unable to complete task. The student considers only a few factors in owning a business. He/she demonstrates minimal understanding of calculating loans and profits. His/her work is sloppily done, is poorly organized and contains several errors. He/she does not use technology.

## Essential Skills

- Perform operations with signed (positive and negative) numbers, including decimals, ratios, percents, and fractions. (m1)
- Understand the best procedures for statistical data collection, organization, and display. (m5)
- Understand the concepts recurrence relations and how they are applicable to such things as compound interest and annuity. (m61)
- Understand the nature and purpose of and be able to word process a variety of formats including essays, business letters, memos, instructions, policy statements, technical proposals, user manuals, lab reports, etc. (ela30)

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