

Title: Count the Cost

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|--|---------------|------------|---------------------|-----------|-----------------|--------|-----------|-------------|---------------|--|------------|-------------------|------------------|---------------|-----|-----|------|---------|--------|--|
| Objectives Calculate the cost and potential savings of the decision to quit smoking. | | | | | | | | | | Time frame to Complete 1 Hr. | | | | | | | | | | |
| | | | | | | | | | | NRS EFL 4 | | | | | | | | | | |
| Stackable Cert. | Documentation | Technology | Study / Life skills | EL-Civics | Career Pathways | Police | Paramedic | Fire Rescue | Medical Asst. | EKG / Cardio | Phlebotomy | Practical Nursing | Healthcare Admin | Pharmacy Tech | IMT | AMT | HVAC | Welding | Other: | |
| | | | X | | | | | | X | X | X | X | X | X | | | | | | |
| Standard(s) Addressed in Lesson Use Math to Solve Problems and Communicate | | | | | | | | | | | | | | | | | | | | |
| Benchmark(s) Addressed in Lesson M.4.25 Solve multi-step problems. M.4.27 Reflect and analyze problem solutions. M.4.28 Confirm results with calculator.M.4.30 Show a logical progression of thought, orally and in writing. | | | | | | | | | | | | | | | | | | | | |
| Materials Handouts, paper, pencil, calculator | | | | | | | | | | | | | | | | | | | | |
| Learner Prior Knowledge Addition, multiplication, changing % to decimal | | | | | | | | | | | | | | | | | | | | |
| Activities <p><u>Step 1</u> Teacher demonstrates the Interest Formula ($I=PRT$). Teacher explains the terminology of the Interest Formula: I=interest (part), P=principle (whole), rate=%, t=time.</p> <p><u>Step 2</u> Teacher demonstrates how interest is added to balance creating new principle.</p> <p><u>Step 3</u> Teacher passes out worksheet and calculator. Teacher asks students to calculate cost and savings of quitting smoking.</p> <p><u>Step 4</u> Class completes worksheet, goes over results as a class, and discusses the question of how the \$ spent could be used in a different way.</p> | | | | | | | | | | | | | | | | | | | | |
| Assessment/Evidence Student understands math concepts and implications | | | | | | | | | | | | | | | | | | | | |
| Adaptations for Beginning Students Peer assistance | | | | | | | | | | | | | | | | | | | | |
| Adaptations for Advanced Students http://www.dollartimes.com/calculator/cigarette-savings.htm | | | | | | | | | | | | | | | | | | | | |
| Teacher Reflection/Lesson Evaluation | | | | | | | | | | | | | | | | | | | | |

Count the Cost

Everyone is familiar with the publicity of the health risks of smoking. Have you ever considered the actual cost of smoking and the savings realized by the decision to quit?

The Interest Formula will help us ($I=PRT$). Assume cigarettes are \$5.00 per pack, you smoke for 10 years, and you put the \$ into a Savings Account making 2%.

(You may use calculator to confirm results.)

1. Determine your savings for a year and interest earned.
2. Add that amount to the savings for 2 years creating a new amount of interest and a new balance.
3. Repeat every year until you've calculated the interest, savings, and balance over a ten year period.

Questions: What did you learn? What could you have done with the savings? What about other costs resulting from smoking such as healthcare?



Cigarette Savings Calculator

How much could you save if you stopped smoking?

Cost Per Pack \$

Packs Per Day

Years to Calculate

Interest Rate of Savings %

This page will calculate how much you could save if you stopped smoking.

This only counts the cost of cigarettes. Factor in health costs and you will save much more!

By quitting smoking, you will save \$1,825 per year.

After 10 years, your savings will have grown to **\$19,983**.

Here is how your savings will grow over time:

| Year | Interest | Savings | Balance |
|-------|----------|---------|----------|
| start | \$0 | \$0 | \$0 |
| 1 | \$0 | \$1,825 | \$1,825 |
| 2 | \$37 | \$1,825 | \$3,687 |
| 3 | \$74 | \$1,825 | \$5,585 |
| 4 | \$112 | \$1,825 | \$7,522 |
| 5 | \$150 | \$1,825 | \$9,497 |
| 6 | \$190 | \$1,825 | \$11,512 |
| 7 | \$230 | \$1,825 | \$13,568 |
| 8 | \$271 | \$1,825 | \$15,664 |
| 9 | \$313 | \$1,825 | \$17,802 |
| 10 | \$356 | \$1,825 | \$19,983 |

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