WAMC Lab Template

Math Concept(s): Simple Interest

Source / Text: Financial Algebra Section 3-3 Savings Accounts

Developed by: Ellen Garr based on Time Machine Lab developed by Eric D. Blazevic; 6/26/12

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Attach the following documents:

Lab Instructions: Included in Student Handout

Student Handout(s)

Rubric and/or Assessment Tool

Short Description (Be sure to include where in your instruction this lab takes place):

Lab Plan

Lab Title: Getting Rich with Time?

Prerequisite skills: Understand how to use and manipulate the simple interest formula:

$$I = prt$$

Where: I = interest

p = principal

r = annual interest rate (expressed as a decimal)

t = time

Lab objective: Students will gain an understanding of how money can grow over a period of time using the Simple Interest formulae and an introduction to the concept of compounding interest.

Standards:

CCSS-M:

- A-CED Create equations that describe numbers or relationships - Level 4: Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.
- A-SSE Interpret the structure of expression – Level 2: Use the structure of an expression to identify ways to rewrite it.

Standards for Mathematical Practice:

- Make sense of problems and persevere in solving them
- Model with Mathematics
- Look for and make use of structure

State Standards addressed (2008 Washington State Mathematics Standards):

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Reading:

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Writing:

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Leadership/21st Century Skills:

21st Century Interdisciplinary themes (Check those that apply to the above activity.)

☐ Global Awareness ☐ Financial/Economic/Business/Entrepreneurial Literacy ☐ Civic Literacy
☐ Health/Safety Literacy ☐ Environmental Literacy

21st Century Skills (Check those that students will demonstrate in the above activity.)

LEARNING AND INNOVATION
Creativity and Innovation
☐ Think Creatively
☐ Work Creatively with Others
☐ Implement Innovations
Critical Thinking and Problem Solving
☐ Reason Effectively
☐ Use Systems Thinking
☐ Make Judgments and Decisions
☐ Solve Problems
Communication and Collaboration
☐ Communicate Clearly
☐ Collaborate with Others

INFORMATION, MEDIA & TECHNOLOGY SKILLS
Information Literacy
☐ Access and Evaluate Information
☐ Use and manage Information
Media Literacy
☐ Analyze Media
☐ Create Media Products
Information, Communications and Technology (ICT Literacy)
☐ Apply Technology Effectively

LIFE & CAREER SKILLS
Flexibility and Adaptability
☐ Adapt to Change
☐ Be Flexible
Initiative and Self-Direction
☐ Manage Goals and Time
☐ Work Independently
☐ Be Self-Directed Learners
Social and Cross-Cultural
☐ Interact Effectively with Others
☐ Work Effectively in Diverse Teams

Productivity and Accountability
☐ Manage Projects
☐ Produce Results
Leadership and Responsibility
☐ Guide and Lead Others
☐ Be Responsible to Others

Teacher Preparation: (What materials and set-up are required for this lab?)

Materials

- Student Worksheet

Set-Up Required:

- None

Lab Organization Strategies:

Grouping/Leadership/Presentation Opportunities:

- Teams are two to three students

Cooperative Learning:

- Team members will analyze and solve problem together

Expectations:

- Reinforce the lessons about connecting the real world concept of time and value of money. Emphasize that there is no easy way get rich through investing or saving.

Timeline:

- This activity will take about one time period after developing understanding of simple interest and before introducing compound interest. It will follow the section 3-3 quiz.

Post Lab Follow-Up/conclusions:

Discuss real world application of learning from lab

- Flaws in original plan (paradox of time travel)
- What would it take to have had the plan work?
- Examine the rose colored nature of glasses when you look back.
- What other historic events were taking place that caused the high savings rates.
- Introduce concept of inflation

Career Applications

- Loan Officer
- Home or Auto Salesman

Optional or Extension Activities

- Repeat activity after introducing compound interest