WAMC Lab Template

Math Concept(s): FA 3-5 Credits Cards Lab
Source / Text: Financial Algebra Cengage Book
Developed by: Robin Barcenas
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Date: Summer Conference 2019

Attach the following documents:

- Lab Instructions
- Student Handout(s)
- Rubric and/or Assessment Tool

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

The purpose of this lab is to explore the concept of borrowing money.
The students will explore credit reports and FICO scores and discuss the significance of their findings.
Then, we will look at various lines of credit, discuss their pros and cons, and why people might want to utilize them.

Lab Plan

Lab Title: How much does it cost to borrow money?

Prerequisite skills: basic understanding of the loan formula and regression analysis

Lab objective: introduce concept of credit and discuss its various uses

Standards: *(Note SPECIFIC relationship to Science, Technology, and/or Engineering)*

Mathematics K–12 Learning Standards:

- N.Q.A.1, N.Q.A.2, A.SSE.A.1, A.SSE.A.1a, A.SSE.A.1b

Standards for Mathematical Practice:

- 1-8

K-12 Learning Standards-ELA (Reading, Writing, Speaking & Listening):

- 9-12.1 – 9-12.10

K-12 Science Standards

-

Technology

- Effective use

Engineering

-

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

- Paper / handout
- Writing utensil
- Access to internet

Set-Up Required:

- none

Lab Organization Strategies:

Leadership (Connect to 21st Century Skills selected):

- students will further develop their ability to work with others and justify their decision by giving applicable rationale for their decision.

Cooperative Learning:

- Students will work with a partner to discuss their findings. We will follow up their discoveries in a whole class discussion.

Expectations:

- For students to be familiar with the significance of a credit score and how they can use it towards a line of credit

Timeline:

- 2 class periods

Post Lab Follow-Up/Conclusions:

Discuss real world application of learning from lab

- As adults, students will have the opportunity to borrow money if they qualify and so choose. This lab will help prepare them for such a future decision.

Career Applications

- all

Optional or Extension Activities

- online credit simulator
- biz town simulation https://www.juniorachievement.org/web/ja-washington/home

Credit Cards Quiz

The OpenSky® Secured Visa® Card Can Save You Money

The below example is based on carrying a $325 balance for 12 months[1].

As of 5/2013[2]	OpenSky	First Progress	U.S. Bank	Capital One	Bank of America
Annual Percentage Rate	**17.50%**	14.99%	20.99%	22.90%	20.24%
Application/Processing Fee	**None**	None	None	None	None
Monthly Service Fee	**None**	None	None	None	None
Interest	**$56.88**	$48.72	$68.22	$74.43	$65.78
Annual Fee	**$29.00**	$39.00	$35.00	$29.00	$39.00
Interest & Fees Paid	**$85.88**	**$87.72**	**$103.22**	**$103.43**	**$104.78**

[1]Additional interest and fees may be assessed based on your card featues and account performance.
[2]Individual APRs and fees were obtained from the individual bank websites.

Compare the 5 credit cards above. How are they similar? How are they different?

FA 3-5 Credits Cards Lab

1. Using Google Chrome, identify the 3 major credit bureaus used to search one's credit history.
2. What is a fico score, and what significance does it have?
3. Identify 5 different lines of credit and compare their pros and cons accordingly.
4. Why might someone choose one card over another?
5. Are all credit cards lines of credit? Explain.
6. Create a power point to report your findings in this activity.
7. Have your answers ready for the whole class discussion

WAMC Lesson Plan

Name(s): Robin Barcenas
Email Address: barcenasr@msd120.org
Lesson Title: Credit Cards 3-5
Date: Summer 19
Text: Financial Algebra STEM Correlation: All Stem Lesson Length: 1 class period

Big Idea (Cluster): exploring the concept of borrowing money	
Mathematics K–12 Learning Standards: N.Q.A.1, N.Q.A.2, A.SSE.A.1, A.SSE.A.1a, A.SSE.A.1b	
Mathematical Practice(s): 1-8	
Content Objectives: to compare various credit card scenarios. To identify and describe factors that affect credit worthiness, borrowing, and management of debt.	Language Objectives (ELL): 9-12.1 – 9-12.10
Vocabulary: credit card, impulse buying, revolving charge account, charge card, truth in lending act, Schumer box, fair credit billing act, fair debt collection practices act, debit card, electronic funds transfer act, average daily balance	Connections to Prior Learning: basic understanding of simple math calculations.
Questions to Develop Mathematical Thinking: How do credit cards work?	Common Misconceptions: • How credit cards apply APR • The concept of borrowing

Assessment (Formative and Summative):

- Whole class discussion to clarify task expectations
- Walk around and check for understanding while students work (formative)
- End of unit test (summative)

Materials:

- Handout
- Calculators
- Writing utensil

Instruction Plan:

Introduction: which credit card has the best deal?
Explore: • Look up and compare various credit card offers. Discuss our findings • Look up their individual FICO scores. Discuss its significance. • Have the students work in small groups to calculate how much they would spend, and the benefits they would receive, from the various credit card options.
When I observe students: I listen to the discussions taking place and ask clarifying questions.
Questions to Develop Mathematical Thinking as you observe: What finance charge would you pay on and average daily balance of $1,441.60 is the APR is 18%?
Answers: $21.62
Summarize: Class discussion at end of student work to check for understanding and clarify any common misconceptions that students have.

Career Application(s):

- Any

Leadership/21st Century Skills:

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

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

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