Lesson Plan

Text: Financial Algebra
Chapter: Consumer Credit (Ch. 4)
Unit number: 4-1
Developed by: Kyle Acord kacord@methow.org
Date: June 26, 2012

Short Description:

Introduce the concept of credit and how to determine simple finance charges.

LESSON PLAN

TEACHER: Teacher Prep/ Lesson Plan

- **Lesson Objectives:** Students will be able to understand basic vocabulary for credit terms and compute finance charges for installment purchases.

- **List of prerequisite skills needed:** Basic math skills, as this is the introductory unit for Consumer Credit.

- **Vocabulary:** Credit, Debtor, Creditor, Credit Rating, Installment Plan, Down Payment, Interest, Finance Charge, FICO Score

- **State Standards addressed:** *(You may use your District's Power Standards if applicable, Highlight "Green" Standards)*

  Math: A1.1.A Solve problems that can be represented by linear functions.
  A1.8.A Analyze a problem situation and represent it mathematically.
  A-SSE Write expressions in equivalent forms to solve problems.
  A-SSE Create equations that describe numbers or relationships.

  Reading: Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.

  Writing: None Applicable

  Leadership:
  1.4 The student will be involved in activities that require applying theory, problem-solving, and using critical and creative thinking skills while understanding outcomes of related decisions.
  1.5 The student will demonstrate self-advocacy skills by achieving planned, individual goals.

- **Teacher Preparation:** *(What materials and set-up are required for this lesson?*
  1. Textbooks
  2. Calculators

- **Content Delivery:** *(How will the lesson be delivered? List any grouping and instructional strategies as well.)*
  1. Lab Activity 4-1 "Comparing Credit Card Offers" (See lab handout)
  2. Further discuss concepts of credit with students.
     a. Ask students to think of advantages/disadvantages of using credit.
     b. Ask why do you think credit tends to tempt over-spending?
  3. Go over examples 1-4, pages 175-177, including checking for understanding, with students.
  4. Assign problems 1-18 odds, pages 178-180.

- **Instructional Documents:** *(Please attach any Worksheet, Quiz, Reading Guide, etc.)*
  1. Textbook
  2. Quiz

- **Assessment Tool used in this Lesson:** *(scoring method, guide, or rubric)*
  1. Formative points given for completion of textbook assignment.
  2. Formative points given for quiz.

- **Reinforcement/Intervention/Extension Activities:**
  1. Even numbered problems, pages 178-80.

- **Career Applications:** *(When will this be used in "real life"?)*
  1. Be able to determine finance charges on big purchases.

Lab Template

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Chapter: **Consumer Credit (Ch. 4)**
Unit number: **4-1**
Developed by: **Kyle Acord kacord@methow.org**
Date: **June 26, 2012**

Attach the Following Documents:

1. **Lab Instructions**
2. **Student Handout(s)**

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

To introduce students to Consumer Credit Chapter in Financial Algebra, bring actual credit card applications for student to look at and compare.

Comparing Credit Card Offers

LAB PLAN

TEACHER: *(Teacher Prep/Lab Plan)*

- **Lab Objective:** Introduce students to the idea of credit for the Consumer Credit Chapter in Financial Algebra by having them look at (and try to decipher) information provided in different credit card applications.

- **Statement of prerequisite skills needed:** *(Vocabulary, Measurement Techniques, Formulas, etc.)*
  Ability to read more than one document and identify varying amounts of information from each document.

- **Vocabulary:**
  Interest Rate
  Grace Period
  Balance Calculation Method
  Fees

- **State Standards addressed:** *(Highlight "Green" Standards, you may use your District's Power Standards if applicable)*
  - **Math:** A1.6.B Make valid inferences and draw conclusions based on data.
    A1.8.B Select and apply strategies to solve problems.
    A1.8.C Evaluate a solution for reasonableness, verify its accuracy, and interpret the solution in the context of the original problem.

  - **Leadership:**

1.4 The student will be involved in activities that require applying theory, problem-solving, and using critical and creative thinking skills while understanding outcomes of related decisions.

1.5 The student will demonstrate self-advocacy skills by achieving planned, individual goals.

- **Teacher Preparation:** ***(What materials and set-up are required for this lesson?)***
  - **Materials:** Credit Card applications, Comparison Charts
  - **Set-Up Required:** Collect enough credit card applications to have at least three different types, and enough to have two or three per student.

- **Lab Organizational Strategies:**
  - **Grouping/Leadership/Presentation Opportunities:** Students will work individually to analyze credit card applications and collect data.
  - **Cooperative Learning:** After working individually to determine which credit card they would choose, students will then compare their choices with each other and determine if there are any differences of choice.
  - **Time-line:** 30 to 40 minutes to complete lab. On block schedule (85 minutes), this activity would preclude the assignment 4-1 problems from Chapter 4.

- **Post Lab Follow-Up/Conclusions** ***(to be covered after student completes lab)***
  - **Discuss real world application of learning from lab:** As students enter college or world of work, they will increasingly be inundated with credit card applications. The hope is that they will make an educated choice when presented with these offers and then use their chosen credit card wisely.
  - **Optional or Extension Activities:** Interview your parents and ask them about their credit cards; see how much information from the credit card comparison chart they know about their own credit card.

Lab 4-1: Comparing Credit Card Offers

Student Instructions:

Use the comparison chart provided to compare three different credit card applications, and then answer the questions. After you have determined which credit card you would choose, get into groups of 3 or 4 and discuss your choice. Be prepared to share as a group with the rest of the class which credit card you chose and why.

Assessment Instructions:

1. In-class discussions with rest of group (participation points).
2. Turn in comparison chart (individual work points).

Choosing a Credit Card: Comparing all the Options

Evaluate three credit card offers by filling out the chart below. Summarize your results by answering the questions that follow.

Card Costs and Features	Card 1:	Card 2:	Card 3:
Interest Rate			
Balance Calculation Method			
Duration of Grace Period			
Annual Fee			
Late Fee			
Cash Advance Fee			
Over the Limit Fee			
Transaction Fee			
Minimum Finance Charge			
Any Special Offers?			

Are the offers alike or different? Explain your answer.

What hidden fees increase the cost of using credit?

Was the information easy to find and understand? Explain your answer.

Which credit card would you choose and why?

Financial Algebra
4-1 Introduction to Consumer Credit
Quiz

1. You have entered a Mt. Bike Race and have been training diligently over the last three months. On the Wednesday before the race, you crash your bike during a training session. Fortunately, you are uninjured, but your bike is completely totaled beyond repair. Since you paid a non-refundable fee of $100 to enter the race, you would like to find a new bike to use. Assuming you can't borrow a bike, and knowing you don't have the $2,500 cash to cover the purchase price of a new one, you approach the local Mt. Bike Shop owner to see if you can buy one from them on an installment plan. The Mt. Bike Shop allows you to put $250 down and will accept $120 payments per month for the next two years to pay for the new bike and have it available for this weekend. The race pays $500 to the first place winner. Will the prize money (assuming you win) be enough to cover the finance charge of a new bike? If not, use an algebraic equation to determine the monthly amount (rounded to the nearest penny) it would take to break even.

ANSWER KEY:
$120 x 24 payments = $2,880.00 + $250.00 (Down Pymt) = $3,130

Finance Charge: $3,130 - $2,500 (Price of Bike) = $630

Since the finance charge is obviously higher than the $500 first prize, no, the prize money would not cover the finance charge.

One possible algebraic equation to solve the break even amount:

TC = 24m + d **Where TC = total cost of bike including finance charge**
m = monthly installment payment
d = down payment

So…… $3,000 = 24m + $250 and m = ($3,000-$250) / 24 and therefore m = $114.58

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Financial Algebra Useful Websites

1. **Learning to Give:** Teacher website with more than 1,600 different lessons for K-12 classrooms, including credit card unit for high school students. www.learningtogive.org/

2. **TI 83/84 Graphing Calculator Quick Reference:** Website that shows how-to steps for using graphing calculator. Helps explain how to do several different functions, including the basics. http://www4.ncsu.edu/unity/lockers/users/f/felder/public/kenny/papers/ti.html

3. **Finding your way around TI 83/84 Calculators by Math Bits:** Another website to help us your calculator, including topics broken down by math level (i.e.: Algebra, Geometry, Trigonometry) http://mathbits.com/mathbits/TISection/Algebra1/QuickReferenceSheetA1.pdf

4. **Your Mortgage Calculator:** One of numerous websites with mortgage calculator. Perhaps not the best, but one of the better ones I could find. http://yourmortgagecalculator.com/

5. **Real Estate & Mortgage Resources:** Gives simple mortgages calculations. Simple to use, but does not include amortizations, etc. http://www.realestateabc.com/calculators/calculat.htm