

# WAMC Lesson Plan

Name(s): Ellen Garr

Lesson Title: Using a Checking Account

Date: June 25, 2013

Text: Financial Algebra; Section 3-1/3-2 Checking Accounts

Lesson Length: 4 days

Domain: Creating Equations

Big Idea (Cluster): Understanding how checking accounts work and how to keep an accurate record of account activity.

Common Core State Standards:

A-SSE Interpret the structure of expressions

Level 1 – Interpret expressions that represent a quantity in terms of its context

A-SSE Write expressions in equivalent forms to solve problems

Level 3 – Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression

F-BF Build a function that models a relationship between two quantities

Level 1 – Write a function that describes a relationship between two quantities.

Sublevel a – Determine an explicit expression, a recursive process, or steps for calculation from a context.

A-CED4 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.

Mathematical Practice(s):

1. Makes sense of problems and persevere in solving them
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure

Content Objectives:

Students will be able to write checks, make deposits, track account activities and reconcile a checking account with a bank statement by hand and by using spreadsheet.

Language Objectives:

Student will be able to use vocabulary terms to communicate problem solutions.

Vocabulary:

- Account number
- Bank statement
- Statement period
- Starting balance
- Ending balance
- Outstanding deposits
- Outstanding checks

Connections Prior to Learning:

1. Basic equation solving skills.
2. Basic computation skills

Questions to Develop Mathematical Thinking:

- How do people gain access to money they keep in the bank?
- How do checking account users make sure that their records are correct?
- What are some reasons why a check may not appear on the bank statement?

Common Misconceptions:

- There is no math involved in reconciling the checking account.
- The statement balance should match the account balance

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- Write a formula to calculate the sum of the outstanding checks.

### Assessment (Formative and Summative):

- Formative – Participating in the Jellybean Bank Lab
- Formative – Understanding vocabulary demonstration through completing the crossword puzzle of vocabulary words
- Summative – Reconciling Edward Cullen's Bank Account Quiz

### Materials:

- Blank check copies
- Blank deposit slip copies
- Blank register copies
- Lab materials

### Instruction Plan:

#### Launch 3-1:

Introduce the topic of bank accounts by asking who in the class has them. What type of bank accounts do they have? List them on the board. Why do they have these accounts? Are there any types of accounts not yet listed? Add them.

Put the quote from Will Rogers on the overhead, "There have been three great inventions since the beginning of time: fire, the wheel, and central banking." Agree or disagree and why?

You now all have checking accounts and need to pay your bills. *Pass out blank checks.* Instruct students to work with their table partner to pay their monthly cell phone use (or other typical payment). Give no other instruction but when they have written out the checks, have them share with the class using the overhead. Depending on the class ability – review the process using the parts of a check page.

Since the checks take money out, you need to use deposit slips to put money in. Do a quick look at how deposit slips are completed as a class depending on their experience to date.

#### Explore 3-1:

Introduce Jellybean banking and play the game to learn about tracking bank account activity. When game is completed, look at the different forms of tracking used. Discuss results found in each group. Where were the challenges in balancing accounts and "banks"? If needed, use the "Keeping a Check Register" so students understand what a register looks like and how it is used. Have the students complete the "Check Your Understanding" on page 118.

Assign problems 11-16. Have students share answers when complete  
Summarize section by reviewing vocabulary introduced

#### Launch 3-2:

Introduce the importance of keeping close track of account balances – particularly checking. Go back to the jellybean game and discuss the cards about bank fees. Share the story of Lisa's (my daughter) first bank account. Math has never been her favorite subject and even though she knew she needed to balance her account, she kept putting it off until she had time. But she kept getting these notices about not having enough money in her account. She

## WAMC Lesson Plan

ignored them because she knew the money was in there. After all, she hadn't written that many checks, after all. When she finally did balance her account, she found she had forgotten to enter her apartment rent check two months before. She had been charged a total of \$500 in bank fees. Think of all the things you could have done with that \$500 that had just disappeared from her account. What a waste!!

Have students who have checking accounts share their experiences if any.

Explore 3-2:

Go to the book and go through Example 1 with table partners. Then share with the class. If needed for understanding, review Example 3.

Answer the "Check Your Understanding" on pages 125. Assign Problems 6-17. Have students share answers when complete  
Summarize section by reviewing vocabulary introduced.

Assign the crossword puzzle for vocabulary from sections 3-1 and 3-2.

When I observe students:

During independent, partner, and group activities I walk around the classroom checking for understanding and on task behavior. Asking for questions and explanations gives me feedback on involvement and interest.

Occasionally stop the class to allow students to share quality questions or discoveries.

Summarize:

3-2 Quiz Reconciling Edward Cullen's Bank Statement  
Review after correction

Career Application(s):

- Primarily understanding how to manage personal finances but this might apply in a business or accounting oriented career as well.

21<sup>st</sup> Century Skills and Interdisciplinary Themes:

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

Media Literacy

- Use and manage Information  
 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

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## WAMC Lab Template

Math Concept(s): Modeling in Mathematics

Source / Text: Financial Algebra; Section 3-1/3-2 Checking Accounts

Developed by: Ellen Garr

E-Mail: egarr@colsd.org

Date: Summer In-service 2013

### Attach the following documents:

Lab Instructions

Student Handout(s): Game Cards, Blank Checks

Rubric and/or Assessment Tool – since this is an introductory/connection activity, there is no rubric or assessment.

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

#### Lab Plan

Lab Title: Jelly Bean Banking

Prerequisite skills: Understanding how to complete a check and a deposit slip

Lab objective: Introduce the importance of keeping an accurate record of bank account activity.

#### Standards:

CCSS-M:

- A-SSE Write expressions in equivalent forms to solve problems
- F-BF Build a function that models a relationship between two quantities

Standards for Mathematical Practice:

- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure

State Standards addressed (2008 Washington State Mathematics Standards):

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Reading:

•

Writing:

•

Leadership/21st Century Skills:

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

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Global Awareness       | <input type="checkbox"/> Financial/Economic/Business/Entrepreneurial Literacy | <input type="checkbox"/> Civic Literacy |
| <input type="checkbox"/> Health/Safety Literacy | <input type="checkbox"/> 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

**INFORMATION, MEDIA & TECHNOLOGY SKILLS**  
Information Literacy

- Access and Evaluate Information

**LIFE & CAREER SKILLS**  
Flexibility and Adaptability

- Adapt to Change  
 Be Flexible

**Productivity and Accountability**

- Manage Projects  
 Produce Results

- 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

- Use and manage Information
- Media Literacy
- Analyze Media
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- Information, Communications and Technology (ICT Literacy)
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- Initiative and Self-Direction
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- Leadership and Responsibility
- Guide and Lead Others
- Be Responsible to Others

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

**Materials**

- Instruction cards
- Jelly beans
- Covered “bank” container
- Individual containers
- Check and deposit forms
- Blank paper

**Set-Up Required:**

- None

**Lab Organization Strategies:**

**Grouping/Leadership/Presentation Opportunities:**

- Students will work in groups of 2-4. Groups may be student or teacher choice.

**Cooperative Learning:**

- As a group, the students will determine a method to track their “banking” activity. The actual tracking is done on an individual basis but using the group method.

**Expectations:**

- Students will develop methods to track their banking activity and understand the value of keeping accurate records.

**Timeline:**

- This lab is done as a connection between the “bank” paperwork of check writing and making deposits and the reconciliation process of an account. It will be done after learning the basics of 3-1 as an introduction to 3-2

**Post Lab Follow-Up/conclusions:**

**Discuss real world application of learning from lab**

- Almost everyone has bank accounts of some type. These are essential skills to learn unless they plan to keep all their money under the floorboards in their rooms.

**Career Applications**

- Any parent, student, or employee will need to understand checkbook registers, writing checks, and deposit slips and the need for accuracy in their personal life and possibly in career if handling money.
- This will be useful to any students working in a small business with responsibility for any accounting responsibilities.

## Optional or Extension Activities

- Allow students to play games of other teams to reinforce keeping an accurate check register.
- Play a game using different jellybean values for each color.

# Washington

## JELLY BEAN BANKING INSTRUCTIONS

The purpose of this game is to help students learn the value of keeping an accurate record of their banking interactions. This “banking” is done using a currency of jellybeans where each jellybean is worth \$5.00. **Remember!! Do not eat any of your \$5.00 jellybeans.**

Set up groups of 2-4 students and give each group the following materials:

- A set of “banking activities” cards
- A small container of jellybeans for each student representing their “bank account”.
- Blank deposit and check forms
- Sheets of blank paper
- A closed container of 40 additional jellybeans representing the “bank”.

Before beginning the game, the group must determine how they will track their banking activities. The group can use any tracking system they agree on but all members of the group must track their activities exactly the same way.

1. Each player then counts the amount of “money” they have in their “bank account”.
2. The players then take turns drawing cards and doing whatever the card directs them to do.
3. If a player has earned jellybeans, they will fill out a deposit slip and trade it for the number of jellybeans from the closed container.
4. If they need to make a payment, the player will write a check then place it and the number of jellybeans required in the closed container.
5. If the player is charged a bank fee, they simply move the number of jellybeans from their “account” to the “bank”
6. When all of the cards have been used, each player must figure out how much “money” they should have in their “bank account”. Then count what is there and see if the totals match.
7. As a group, total the deposit slips and checks and the number of jellybeans in the bank.
8. Discuss how well the group tracking system worked and what, if any, changes need to be made.

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You just finished mowing two lawns for \$5.00 each.

You earned \$15.00 babysitting

You went to the movies with your friends for \$20.00

You spent \$10.00 on a haircut

You wrote a check for more than you had in your account.  
Pay \$15.00 to the bank.

You spent \$40.00 on new clothes.

That pizza cost you \$10.00 but it sure was good!!

You got \$25.00 for your birthday.

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# Washington

You earned \$5.00 pulling weeds.

You earned \$10.00 babysitting

# Applied

You went to the movies with  
your friends for \$15.00

You decided to color your hair  
fuchsia but it cost you \$25.00

# Math

# Council

You wrote a check for more  
than you had in your account.  
Pay \$15.00 to the bank.

You spent \$15.00 on new shoes.

That pizza cost you \$10.00 but  
it sure was good!!

You sold your painting for  
\$25.00.

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You just finished mowing three lawns for \$5.00 each.

You earned \$15.00 babysitting

You went to the movies with your friends for \$20.00

You spent \$25.00 getting your hair done.

You wrote a check for more than you had in your account.  
Pay \$15.00 to the bank.

You spent \$40.00 on new clothes.

That pizza cost you \$10.00 but it sure was good!!

You got \$25.00 for your birthday.

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## Keeping Track of Your Checks

Your bank will give you a check register with your checks.

Use the register to keep track of the checks you write.

Use it to keep track of the deposits you make.

Use it to keep track of how much money is in your account.

- Debits:** When you write a check, record it in your check register.  
 ( - ) Write the amount under the payment, or debit, column.  
 Subtract this amount from your balance.  
 If you pay a fee per check, remember to subtract that, too.
- Credits:** When you make a deposit, record it in your check register.  
 ( + ) Write the amount under the deposit, or credit, column.  
 Add this amount to your balance.

Check Register

Check No.	Date	Description of Transaction	Payment (Debit)	Fee	Deposit (Credit)	Balance
						577.80
3308	6/10/06	Northern Electrics	83.46	.25		- 83.71
		<i>May electric bill</i>				494.09
	6/12/06	Deposit			100.00	+ 100.00
		<i>birthday money ☺</i>				594.09
3309	6/15/06	Anne's Shoe Shop	29.80	.25		- 30.05
		<i>shoes for Jennifer</i>				564.04
	6/17/06	ATM withdrawal	20.00	1.00		- 21.00
		<i>lunch with Judy</i>				543.04
3310	6/17/06	ReLini's Salon	29.00	.25		- 29.25
		<i>hair color</i>				513.79

### Your Turn to Practice

Write in these transactions on the check register. You pay 25¢ for each check.

1. On June 20 you make a deposit of \$324.00.
2. On June 21 you write a check to The Gas Company for \$34.02.
3. On June 28 you buy a video from Sam's Videos for \$20.43.

What is your balance now? \_\_\_\_\_

# Washington Applied Math Council

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## How to Write a Check

This is the information you write on a check.

Your Name		1001
Your Address	16-123/4567	
City, State, Zip		
	Date	①
Pay to the order of	②	\$ ③
④		dollars
Bank's Name		
Address		
City, State, Zip		
For	⑤	⑥
	1234567	0000000016093829387 1001

### What to write:

### Example:

- Write the date: month, day, year. *August 5, 2006 or 8/5/06*
- Write the name of the person or business that gets the check. *ABC Store*
- Write the amount of the check in numbers. *\$21.28*
- Write the amount of dollars in words. *twenty-one*  
Write the amount of the cents in numbers. *28/100*  
Draw a line to the word "dollars." *twenty-one and 28/100-----*
- Write a note to remember what the check was for. *party supplies*
- Sign your name. *Your Name*

DEPOSIT TICKET

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DEPOSITS MAY NOT BE AVAILABLE FOR IMMEDIATE WITHDRAWAL

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# DEPOSIT TICKET

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DATE \_\_\_\_\_

*DEPOSITS MAY NOT BE AVAILABLE FOR IMMEDIATE WITHDRAWAL*

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SIGN HERE FOR CASH RECEIVED (IF REQUIRED)\*



**ROME**  
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