WAMC Lesson Plan

Name(s): Kathey Hatfield

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Lesson Title: Ch 2-1, Checking Accounts

Date: June 25, 2019

Text: Financial Algebra   STEM Correlation: Technology   Lesson Length: 5 Days

Big Idea (Cluster): What is my checking account balance?

Mathematics K–12 Learning Standards:
• A1.1.A Select and justify functions and equations to model and solve problems • A1.6.B Make valid inferences and draw conclusions based on data

Mathematical Practice(s):
• Apply the mathematics they know to solve problems arising in everyday life, society, and the workplace • Detect possible errors by strategically using estimation and other mathematical knowledge • Use technological tools to explore and deepen their understanding of concepts • Notice if calculations are repeated, and look both for general methods and for shortcuts

Content Objectives:	Language Objectives (ELL):
• Explain how checking accounts work. • Complete a check register.	• Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally. • Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Vocabulary:	Connections to Prior Learning
1. Direct deposit 2. Automated teller machine (ATM) 3. Personal identification number (PIN) 4. Hold 5. Endorse 6. Canceled 7. Insufficient funds 8. Overdraft protection 9. Maintenance fee 10. Interest 11. Single account 12. Joint account 13. Check register 14. Debits 15. Credits	• Expenses • Budgeting • Income

Questions to Develop Mathematical Thinking:	Common Misconceptions:
• How do debits and credits (expenses and income) effect your checking account balance?	• Your balance is ALWAYS correct when you look up your checking account balance online.

Assessment (Formative and Summative):

• Homework, vocabulary and problem quiz

Materials:

• Text book, paper, pencil, calculator, computer with Excel for lab

WAMC Lesson Plan

Instruction Plan:

Introduction:

Discussion Prompts

Discuss these questions with your classmates or with a partner:

1. Do you have a checking account? Why or why not?
2. What do you think are some of the advantages and disadvantages of having a checking account?

Explore:

How Does a Checking Account Work?

This short video explains one aspect of a checking account. Watch the video and then answer the following questions.

https://www.youtube.com/watch?v=yL_qomP8xNQ

1. When you use your debit card, where does the money come from?

2. What is the main difference between a debit card and credit card? Discuss Chapter 2.1 and examples in Textbook

3. Select and assign Application problems (page 59-62)

Exit Ticket (could use 3 separate days)
1. Identify two ways to deposit money into and withdraw money out of your checking account.
2. What is one disadvantage of NOT having a checking account?
3. Why is it a good idea to check your bank statements on a regular basis?

When I observe students: Check for understanding, are they helping one another, asking appropriate questions?

Questions to Develop Mathematical Thinking as you observe: What transaction must be made in your check register if you return a purchase that was made on your debit card and the store "credits" your account.

Answers: You must add it to your balance.

Summarize: Students will be able to determine how debits and credits effect their checking account balance.

Career Application(s):

- Bookkeeping, accounting, financial services

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

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

Productivity and Accountability
- ☐ Manage Projects
- ☐ Produce Results

Leadership and Responsibility
- ☐ Guide and Lead Others
- ☐ Be Responsible to Others

☐ Collaborate with Others	Teams

Washington Applied Math Council

Name _____   Period _____

INTERACTIVE: Navigate Your Online Bank Account

Note that this is a _simulation_ and you should NOT use any of your actual bank account information at any point!

It's Saturday morning, and you leap out of bed because it's time to…

CHECK YOUR ONLINE BANK ACCOUNT! YES!!!!

Part I: Set up your account
You've just opened a checking and savings account at a local bank earlier this month with a deposit of $250 in each account. Access the online bank simulator (http://obanksimulator.ngpf.org/index.php) and set up your digital account for the first time by clicking Create an Account in the upper right and following the prompts.

For the ALERT section, ✅   IF THE CHECKING OR SAVINGS ACCOUNT FALLS BELOW $**200.** Then, log in using your new account details you just set.

Part II: Do Some Online Banking
In the upper right, set the SIMULATION DATE to January 17, and push **GO**. Navigate to Account Activity to see what's happened this month in your Checking Account.

1. What is your current balance in the Checking Account? Is it more or less than you started the month with?

To get in the full swing of things with online banking, you set up _direct deposit_ with your job at Burger Bucket. You want to verify that it's working correctly: You're supposed to be paid twice a month.

2. Did your direct deposit work correctly? If so, what days did you receive your pay? How large was each deposit?

3. What fee(s) have you incurred on your account so far? How could you prevent them from happening in the future?

You want to make sure your account reflects the spending you've actually done, so you pull receipts out of your clothes pockets from the last two weeks and find two for Cool Snacks, one for Club Cafe, one from a sale at Clothing Rack, and an ATM slip for a withdrawal of $30.

4. Are there any items reflected on your Account Activity that you can't account for? What are they?

5. What *might* be a plausible explanation for the extra entry? Give at least two possibilities.

Switch over to the Account Activity for your Savings Account.

6. What's happened so far in your Savings Account?

Hmmm, thinking back to your personal finance course, you remember you should "pay yourself first" by regularly contributing some of your income to your Savings Account. Use the Make a Transfer feature to move $35 from your Checking Account into your Savings Account.

7. How much is in your Savings Account now?

8. What is the new balance in your Checking Account?

You're working part-time, you've got your own bank accounts… It's time to finally subscribe to online streaming TV and movies from GetFlix at a monthly cost of $11. You can't be bothered to remember to pay your bill on-time every month, so use Pay a Bill and follow the prompts onscreen to set up auto payment to GetFlix, 2000 Maple Street, Anytown, PA 15068. Your payment is **due** the first of every month.

9. For what date did you set your first bill pay to GetFlix? After seeing the ALERT that appears, will your bill be paid in time for February 1st?

Fast Forward

You've just gotten your driver's license, and your parents say you're responsible for paying NoRisk Insurance Co (4000 Maple Street, Anytown, PA 15068) a $250 premium payment in order to be added to their account. The sooner you pay, the sooner you can start driving. You'll need to pay this amount every 6 months. Use <u>Pay a Bill</u> to make the payment today (be sure to set the bill pay calendar to today's date, May 17).

12. Did you set up a Single or Monthly payment? Why did you make this choice?

UH OH! You receive a text on your phone telling you to check the <u>Notification</u> zone for an important alert. Head there now.

13. What do you see in your notifications?

Worried about your Checking Account balance, go check your <u>Account Activity</u>.

14. **Should** you be worried? Why or why not?

15. Give one short-term and one long-term priority you have for your online bank accounts. Explain why you chose these goals and how you plan to achieve them.

INTERACTIVE: Navigate Your Online Bank Account (Short Version) [ANSWER KEY]

> ### Interactive: **NGPF OnlineBank Simulation**

❖ **Teacher Tip 1:** There is no "teacher dashboard" for the banking simulation, so your students are doing work in the online simulation, but you don't have a way to "see in" to see if they're doing the work correctly.

❖ **Teacher Tip 2:** If you need one or more of students to completely start over on the simulation once they've already started, and you want them to start from scratch, they can click their username at the top right and push "RESET ALL."

!!!Note that this is a *simulation* and you should NOT use any of your actual bank account information at any point!!!

It's Saturday morning, and you leap out of bed because it's time to…

CHECK YOUR ONLINE BANK ACCOUNT! YES!!!!

Part I: Set up your account
You've just opened a checking and savings account at a local bank earlier this month with a deposit of $250 in each account. Access the NGPF OnlineBank Simulator and set up your digital account for the first time by clicking Create an Account in the upper right and following the prompts.

For the ALERT section, ✅ IF THE CHECKING OR SAVINGS ACCOUNT FALLS BELOW **200.** Then, log in using your new account details you just set.

Part II: Do Some Online Banking
In the upper right, set the SIMULATION DATE to January 17, and push GO. Navigate to Account Activity to see what's happened this month in your Checking Account.

❖ **Teacher Tip 3:** Make sure students understand in actual online banking, you don't set the calendar forward and backward -- it's just to make this simulation work correctly that they're doing so here.

1. What is your current balance in the Checking Account? Is it more or less than you started the month with?

   My current balance in my checking account is $290.29, which is MORE than I started the month with ($250).

To get in the full swing of things with online banking, you set up *direct deposit* with your job at Burger Bucket. You want to verify that it's working correctly: You're supposed to be paid twice a month.

2. Did your direct deposit work correctly? If so, what days did you receive your pay? How large was each deposit?

> Yes, it appears that my direct deposit is working correctly. I received my paycheck on 1/1/17 and on 1/15/17, each worth $75.
>
> NOTE: Students are not actively setting up their direct deposit in this question -- the simulator doesn't have that type of functionality. Here, they are merely reviewing their account transactions and verifying that their direct deposit, previously set up, is indeed working, which it is.

3. What fee(s) have you incurred on your account so far? How could you prevent them from happening in the future?

> So far, I have had an "Out of Network ATM fee" that cost $3. I can prevent this from happening in the future by using an ATM for my specific bank, withdrawing money inside the bank from a teller, or asking for cash back when using my debit card at a store.

You want to make sure your account reflects the spending you've actually done, so you pull receipts out of your clothes pockets from the last two weeks and find two for Cool Snacks, one for Club Cafe, one from a sale at Clothing Rack, and an ATM slip for a withdrawal of $30.

4. Are there any items reflected on your Account Activity that you can't account for? What are they?

> I cannot account for the $10 "Movie Card" reflected on my account activity.

5. What *might* be a plausible explanation for the extra entry? Give at least two possibilities.

> [Answers may vary]
> Sample answers may include:
> - I lost my receipt // ticket for the movie
> - It was from an earlier movie date and the box office just processed it
> - I paid for my little sister to go to the movie with her friends and she has the receipt // ticket
> - It's an incorrect debit and I should call the bank to report it

Switch over to the <u>Account Activity</u> for your <u>Savings Account</u>.

6. What's happened so far in your Savings Account?

> Nothing has happened yet in my savings account, other than my $250 initial deposit for the account opening.

Hmmm, thinking back to your personal finance course, you remember you should "pay yourself first" by regularly contributing some of your income to your Savings Account. Use the <u>Make a Transfer</u> feature to move $35 from your Checking Account into your Savings Account.

7. How much is in your Savings Account now?

> Now there is $285 in my savings account.

8. What is the new balance in your Checking Account?

My new balance for my checking account is $255.29.

You're working part-time, you've got your own bank accounts… It's time to finally subscribe to online streaming TV and movies from GetFlix at a monthly cost of $11. You can't be bothered to remember to pay your bill on-time every month, so use <u>Pay a Bill</u> and follow the prompts onscreen to set up auto payment to GetFlix, 2000 Maple Street, Anytown, PA 15068. Your payment is **due** the first of every month.

9. For what date did you set your first bill pay to GetFlix? After seeing the ALERT that appears, will your bill be paid in time for February 1st?

[Answers may vary]
Sample answers may include:
- I set my first bill to pay GetFlix for February 1. But now after reading the ALERT that appeared, I need to change it to a few days earlier so the payment is processed on time.
- I set my first bill to pay GetFlix for January 23, so that the payment will be processed BEFORE the first of every month.

<center>

Fast Forward

</center>

11. You intended to "pay yourself first" with $35 into your savings account every month, but it looks like that's not happening regularly. What could you do to fix the problem?

> I need to set up an automatic deposit from my checking to my savings account for $35 each month.
>
> Or, if available, I can set up my direct deposit to funnel some funds from my pay directly into my savings (if my employer allows for split direct deposits).

You've just gotten your driver's license, and your parents say you're responsible for paying NoRisk Insurance Co (4000 Maple Street, Anytown, PA 15068) a $250 premium payment in order to be added to their account. The sooner you pay, the sooner you can start driving. You'll need to pay this amount every 6 months. Use <u>Pay a Bill</u> to make the payment today (be sure to set the bill pay calendar to today's date, May 17).

12. Did you set up a Single or Monthly payment? Why did you make this choice?

> I chose to set up a single payment because I do not need to pay insurance each month. I will need to set a reminder for every six months to pay NoRisk.

UH OH! You receive a text on your phone telling you to check the <u>Notification</u> zone for an important alert. Head there now.

13. What do you see in your notifications?

> Yikes! My checking account balance is below $200. And this isn't the first time it happened!

Worried about your Checking Account balance, go check your <u>Account Activity</u>.

14. **Should** you be worried? Why or why not?

> [Answers may vary]
> Sample answers can include:
> - I'm not too worried because the insurance is only every six months, so I will get my paycheck soon and start saving up again.
> - I am worried because I only have $11.77 in my checking account, which is dangerously low for when I need to pay for gas, movies, my phone, and snacks! Plus, my $11 Getflix still needs to be deducted this month, soon!
> - I am worried because I don't get paid again until the 1st of June, and that's a long time to go with such a low balance.
> - I am NOT worried because I can transfer some money from my savings to my checking to hold me over until payday

15. Give one short-term and one long-term priority you have for your online bank accounts. Explain why you chose these goals and how you plan to achieve them.

> [Answers may vary]
> Sample answers can include:
> - Short-term goal: reduce the amount of spending on items I have available already (maybe snacks, clothes, etc.). I chose this goal because this is something I can do starting today and will affect my

account by allowing for more money to be saved. I plan on achieving this goal by bringing my own lunch and snacks from home, keeping my wardrobe neutral so that I can mix and match outfits easily, and going to the movies less frequently by utilizing my GetFlix account.

- Long-term goal: continue to put aside money from each of my paychecks into my savings and only withdraw from that account if there is an emergency. I chose this goal because it is smart to have a "rainy day" fund where I can access money when I'm in a tight bind. Additionally, another long-term goal is to set aside money for my car insurance every six months so that I don't fall into the low balance predicament again.

Name _____   Period_____

Online Banking Quiz

1.   In your own words, explain what direct deposit is.

2.   Name 3 benefits of direct deposit:

1.   What are 2 advantages of using online and mobile banking?

Name _____ Period_____

Online Banking Quiz

1. In your own words, explain what direct deposit is.
    A direct deposit is a deposit of money by a payer directly into a payee's bank account.

2. Name 3 benefits of direct deposit:
    Safety, convenience, quick access to money, increase savings

1. What are 2 advantages of using online and mobile banking?
    Time, money, convenience

Name _____ 2-1 Checking Problem Quiz

(3 points for showing work, 2 points correct answer), 20 points

1. Mike has a balance of $1100 in his US Bank checking account. He deposits a $95.00 paycheck, a birthday check for $60, and a personal check for $150. He wants to receive $100 in cash. How much will he have in his account after the transactions?

2. Washington Bank charges a $12 per check overdraft protection fee. On May 5, Kim had $800 in her account. Over the next few days, the following checks were submitted for payment at her bank: May 7, $800, May 8, $200, May 9, $300; and on May 10, $200

    a. How much will she pay in overdraft protection fees?

    b. How much will she owe the bank after May 11?

3. Hatfield Bank charges a monthly maintenance fee of $10 and a check writing fee of $0.05 per check. Last year, Mary wrote 450 checks from her account at Hatfield Bank. What was the total of all fees she paid on that account last year?

(3 points for showing work, 2 points correct answer), 20 points

+

1. Mike has a balance of $1100 in his US Bank checking account. He deposits a $95.00 paycheck, a birthday check for $60, and a personal check for $150. He wants to receive $100 in cash. How much will he have in his account after the transactions?

   1100+95+60+150-100=1305

2. Washington Bank charges a $12 per check overdraft protection fee. On May 5, Kim had $800 in her account. Over the next few days, the following checks were submitted for payment at her bank: May 7, $800, May 8, $200, May 9, $300; and on May 10, $200

   a. How much will she pay in overdraft protection fees?
      $36
      First withdrawal will not cause an overdraft, but the next three will.

   b. How much will she owe the bank after May 11?
      $700
      200+300+200=700

3. Hatfield Bank charges a monthly maintenance fee of $10 and a check writing fee of $0.05 per check. Last year, Mary wrote 450 checks from her account at Hatfield Bank. What was the total of all fees she paid on that account last year?

   .05x450=22.50

   22.50+120=$142.50

A. automated teller machine (ATM)	K. hold
B. endorse	L. insufficient funds
C. deposit slip	M. interest
D. overdraft protection	N. maintenance fee
E. check	O. payee
F. check clearing	P. personal identification number (PIN)
G. check register	Q. checking account
H. debit	
I. direct deposit	
J. drawer	

1. _____Provides 24-hour bank access to make deposits, transfers, and withdrawals.

2. _____A check that has been processed so that the money is paid to the payee of a check.

3. _____A written document used to tell a bank to pay money from an account to the check holder.
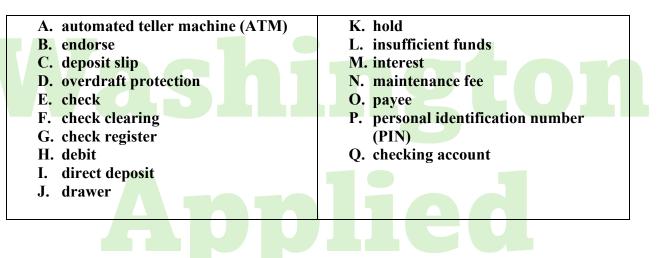
4. _____A record of all transactions in a checking account, including checks written, deposits made, fees paid, ATM withdrawals, and so on.

5. _____An account at a bank that allows a customer to deposit money and make withdrawals from the funds on deposit using a paper check or electronic transfer.

6. _____Payroll or other types of checks that are directly and electronically deposited into a bank account.

7. _____The act of signing the back of a check when cashing it.

8. _____When an account does not have enough money to cover a check that has been issued against it.

9. _____A fee some banks charge on some accounts to provide access to checking or savings accounts.

10. _____Protection pays a check even though there are not enough funds in the account; there is a fee for this service and the money must be repaid.

_____/10

A. automated teller machine (ATM)	K. hold
B. endorse	L. insufficient funds
C. deposit slip	M. interest
D. overdraft protection	N. maintenance fee
E. check	O. payee
F. check clearing	P. personal identification number (PIN)
G. check register	Q. checking account
H. debit	
I. direct deposit	
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1. _A___ Provides 24-hour bank access to make deposits, transfers, and withdrawals.

2. _F____ A check that has been processed so that the money is paid to the payee of a check.

3. _E____ A written document used to tell a bank to pay money from an account to the check holder.

4. _G___ A record of all transactions in a checking account, including checks written, deposits made, fees paid, ATM withdrawals, and so on.

5. _Q____ An account at a bank that allows a customer to deposit money and make withdrawals from the funds on deposit using a paper check or electronic transfer.

6. _I____ Payroll or other types of checks that are directly and electronically deposited into a bank account.

7. _B____ The act of signing the back of a check when cashing it.

8. _L___ When an account does not have enough money to cover a check that has been issued against it.

9. _N____ A fee some banks charge on some accounts to provide access to checking or savings accounts.

10. _D___ Protection pays a check even though there are not enough funds in the account; there is a fee for this service and the money must be repaid.

https://wa-appliedmath.org/

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WAMC Lesson Plan

Name(s): Kathey Hatfield, Jeff Albertsen
Email Address: khatfield@psd1.org, jalbertsen@psd1.org
Lesson Title: Ch 2-1, Checking Accounts
Date: June 26, 2019
Text: Financial Algebra   STEM Correlation: Technology   Lesson Length: 1 Days

Big Idea (Cluster): Be the WINNER of the game!!

Mathematics K–12 Learning Standards:
• A1.1.A Select and justify functions and equations to model and solve problems • A1.6.B Make valid inferences and draw conclusions based on data

Mathematical Practice(s):
• Apply the mathematics they know to solve problems arising in everyday life, society, and the workplace • Detect possible errors by strategically using estimation and other mathematical knowledge • Use technological tools to explore and deepen their understanding of concepts • Notice if calculations are repeated, and look both for general methods and for shortcuts

Content Objectives:	Language Objectives (ELL):
• Explain how checking accounts work. • Complete a check register.	• Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally. • Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
Vocabulary: 1. Endorse 2. Insufficient funds 3. Check register	Connections to Prior Learning • Expenses • Budgeting • Income
Questions to Develop Mathematical Thinking: • How do debits and credits (expenses and income) effect your checking account balance?	Common Misconceptions: • Your balance is ALWAYS correct when you look up your checking account balance.

Assessment (Formative and Summative):

• Walk around and end-of-class period electronic register, check writing

Materials:

• Computer and electronic register from previous lesson • Checks • Monopoly (one per group)

Instruction Plan:

Introduction: Time to have some competitive fun! Let's use our check writing skills and electronic check to play the game of Monopoly, Life, or Payday.

Explore: Get into groups of (4-8, teacher discretion). Students will write a check for each in game

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transaction and record the transaction in their register. As they accept money from another player, they will record the transaction. At the end of the period, the person with the most money and/or property (assets) will declared the WINNER. Game could continue throughout the term.

When I observe students: Check for understanding, are they helping one another, asking appropriate questions?
Questions to Develop Mathematical Thinking as you observe: Can you keep your balance in your head?
Answers: Will vary
Summarize: It's more efficient to keep your register on paper or electronically.

Career Application(s):

- Bookkeeping, accounting, financial services

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