



Lesson Plan

Bank Magic

Financial Literacy for Young People

Before You Start: Note for Instructors (Teachers, Club Facilitators, Non-Profit Facilitators):

Ultimately, the goal is to have students develop a strong foundation in financial literacy and test with confidence. The facilitation of the material engages them to learn about money management while applying necessary New York State Next Generation Mathematics Learning Standards. The CCSS standards that are imbedded to the lessons will better strengthen student's preparedness and confidence for New York State Exams.

Students will be applying the **math practices** as identified by New York State Next Generation Mathematics Learning Standards which are listed below along with the financial skills they will master.

1. **Make sense of problems and persevere in solving them.** They will have the ability to support themselves financially.
2. **Reason abstractly and quantitatively.** This will support confidence when it comes to dealing with money.
3. **Model with mathematics.** They can fully prepare to make wise financial decisions for a lifetime.
4. **Use appropriate tools strategically.** Be able to follow stocks using the internet. Use calculators to calculate investment gains & lose. Calculate interest on a savings account, CD or bond. Total expenses and income for budgets. Use calculators to determine the difference between monthly expenses and income.
5. **Construct viable arguments and critique the reasoning of others.** They will confidently help other family members and friends with financial decisions.
6. **Attend to precision.** Understand the best ways to budget.
7. **Look for and make use of structure.** They will acquire life lessons.
8. **Look for and express regularity in repeated reasoning.** They will achieve financial literacy.

The following are examples of Common Core Standards that are applicable through the workshop lessons: Reference Site

<http://www.corestandards.org/Math/Content/7/EE/>

CCSS.MATH.CONTENT.7.NS.A.1.C

Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.

CCSS.MATH.CONTENT.7.NS.A.1.D

Apply properties of operations as strategies to add and subtract rational numbers.

CCSS.MATH.CONTENT.7.NS.A.2

Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.

CCSS.MATH.CONTENT.7.EE.A.2

Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that "increase by 5%" is the same as "multiply by 1.05."

CCSS.MATH.CONTENT.7.EE.B.3

Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50,

for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

CCSS.MATH.CONTENT.7.EE.B.4.B

Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.

CCSS.MATH.CONTENT.8.SP.A.1

Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.

CCSS.MATH.CONTENT.8.SP.A.4

Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*



Bank Magic

Financial Literacy for Young People

The following key concepts are important financial topics students will need to know and understand when they get older. They will not only teach them how to support themselves but also provide information that will allow them to help other family members and friends.

Very quickly, here are the key concepts covered in the book:

- Chores, jobs & work ethic
- Piggy bank savings
- Bank savings accounts
- Budgeting
- Giving to Charity
- Checking Accounts and paying bills
- Visiting the bank
- Managing Credit Cards & Loans
- Investing
- Taxes
- Government Spending

This lesson plan is designed with maximum instructor flexibility per workshop (or combined workshops) through each Key Concept covered. Instructors can use this plan to teach in multiple 45 minute sessions or broken up into multiple workshops over a differentiated structured period of time. Each of the following workshops has corresponding chapters and pages to support facilitation of each lesson to be differentiated according to the needs of the students.

Materials/Resources

Bank Magic Book, Lesson Plan, Piggy Bank

Internet/mobile access, calculators, YouTube videos

Notebooks, graph paper, colored pencils, rulers, pens & pencils

Investment Market Summaries, Department of Labor Occupational Outlook Handbook

Bank Magic

Financial Literacy for Young People

Objective: Students will use mathematical practices to develop a strong foundation in financial literacy.

Introduction:

Have students guess how much change is in a piggy bank and the closest to guessing the amount keeps the piggy bank. Ask students how often they will put money in the piggy bank and where will the money come from?

You will want to start getting your students to think about financial literacy by first asking questions about money using these examples.

Who wants to make money when they get older?

Who can tell me what money is and why we use it?

How do you make money?

What do you do or what can you do with money once you make it and get it?

Name some things you do with money?

Who can tell me how you use money?

Why do you want to make money? (Turn and Talk)

Instructors can personalize the introduction and let students know that they are using many of the lessons taught in this book in their own life. *(Cold Call)*

- *Who wants to tell me about the chores they do around the house?*
- *How do your parents feel when you do chores?*
- *How do you and your parents keep track of your chores? (i.e.. home white board)*

Guided Practices: (10 minutes)

Instructors will first review the key concepts on which students will focus.

- Chores, jobs & work ethic
- Piggy bank savings
- Bank savings accounts
- Budgeting
- Giving to Charity
- Checking Accounts and paying bills
- Visiting the bank
- Managing Credit Cards & Loans
- Investing
- Taxes
- Government Spending

Instructors will guide students on how they should take notes

- Describe what students are doing
- Describe what the Instructor will show

Group Readings : (20 minutes) Options for these readings can be shared using Round Robin, Popcorn, Partner Reading

Mini Lesson: (15 minutes)

- Present key concepts during the mini lessons.
- Instructor teaches a certain skill or idea to instruct.
- Describe what Instructors will show.
- Describe what students are doing.
- Suggest how students take notes.

Independent Practice : (15 Minutes)

- Students write down what they want to learn about money.
- Instructors move around the classroom.
- Students go over best ways to save and why.
- Students go over benefits and disadvantages of credit cards.
- Students make up a budget for a famous person (Do they go over budget or under budget).
- Students talk about the chores they do at home.
- Students research companies/stocks to invest in.

Bank Magic

Financial Literacy for Young People

Workshop 1: Chores – Page 8: Tell me what you do at home: Have students list chores that they do at home. Have students list after school jobs they could do. Have students list their favorite/least favorite chores and why. Include discussions about the benefits of working hard (Whole class, partnerships, or small groups)

Workshop 2: Allowance – Page 11: Students identify areas where they do their best work. Explain and quantify their allowance request. (Whole class, partnerships, or small groups) Dream Jobs: Have students list 3 or more occupations from the Department of Labor Occupational Outlook Handbook that they'd be interested in when they get older. Tie allowance received now with income they'll receive in the future from a job.

Workshop 3: Checking - Page 14 & 55: Discussions and notes. Have students list 5 banks in the area that they can visit and open an account. Have students describe how they would use a checking account with checks and debit card. Have students list what they can buy with a debit card. Have student list what bills get paid. Balancing bank accounts and how to avoid fees (Whole class, partnerships, or small groups)

Workshop 4: Savings – Page 16: Have students list 5 ways not to waste the money they make at work. Students will calculate interest after identifying benefits of saving and establishing tangible goals. (Whole class, partnerships, or small groups)

Ask students to research something they want like a videogame system, car, house, vacation, etc. How much is it? How would they make a plan to obtain it? How long would it take? If it's too expensive, what would be an alternative? In other words, is it worth it?

Students will calculate and compare the interest and the value of the savings account on the following amounts:

\$500 @2% over 1 year

\$1000 @ 4% over 3 years

\$5000 @6 % over 5 years

(Whole class, partnerships, or small groups)

Workshop 5: CDs – Page 17: Students discuss the difference between a Certificate of

Bank Magic

Financial Literacy for Young People

Deposit and a Saving Account: (Whole class, partnerships, or small groups) Students will calculate and compare the interest and the value of the certificate of deposit for the following examples:

\$500 @2% over 1 year

\$1000 @ 4% over 3 years

\$5000 @6 % over 5 years

Students will discuss the discipline of not using the CD money for the specific time period. Students will discuss the penalty for early withdrawal of a CD. Students will discuss the financial safety of CDs compared to mutual funds, investments and savings accounts.

Workshop 6: Budget – Page 32 &54: Ask students to create a pretend budget for their family and discuss the details with items like rent/mortgage, food, phone, lights, transportation, loans, clothing, etc. (Use the template).

Ask students to create a pretend budget for themselves when they are adults and discuss the details.

Have students solve the following question: “If you make \$1,000 working at a job and your federal, state and city tax rates are 20%, 6% and 2% respectively, how much of your paycheck goes toward paying your taxes separately and in total?”

Ask students to bring in coupons for savings on grocery items and discuss.

Have students draft a mock budget from chosen job salaries using the Department of Labor Occupational Outlook Handbook (Whole class, partnerships, or small groups)

Workshop 7: Charities & Giving – Page 33: Have students list charities they would give money to. Budget time, talent and money for organizations that help those in need. Have students list examples of things students would give away or places they would volunteer to help others. Have students give examples of ways they have already given time, money and items of theirs to help others.

Workshop 8: Credit – Page 36: Instructor goes over benefits and disadvantages of credit card fees and how to avoid them. (Whole class, partnerships, or small groups) Ask students to do the math on credit cards to show how easy it is to get into credit card debt.

Have students calculate credit card interest expenses. Talk with students about the benefits of using credit responsibly. Discuss credit scores and the significance of them with the following credit agencies: Experian, Equifax and Transunion. Discuss with students the purpose of student loans, home mortgages, credit cards and car loans.

Workshop 9: Mutual Funds and Stocks – Page 40 & 56: “The Mutual Fund is the Halloween bag and the Stocks and Bonds inside the bag are the different types of Halloween candies in the bag. “

Students discuss the relevance and usage of Mutual Funds: (Whole class, partnerships, or small groups). Students will calculate and write down the value of the mutual fund account on the following examples:

\$300 @12% rate of return over 1 year

\$4000 @ 9% rate of return over 3 years

\$10000 @20% rate of return over 5 years

Ask students what stock/mutual fund they are going to follow and why.

Have students follow stocks with their ticker on their phone after doing an internet search. They can follow stocks like Nike, Apple, Facebook, Disney and any other stocks they like and recognize. Let students start tracking individual stocks and mutual funds on a specific day with a hypothetical investment of \$100,000 and \$1,000. Have a stock picking contest. See if students can actually purchase investments with parents.

Workshop 10: Government Spending- Page 52: What are the things the government needs to spend public tax money for our communities to function?

Bank Magic Pre-Presentation Assessment

Bank Magic Money Survey

1. How important is money and learning how to manage it to you? (Check one)
 - Very important
 - Somewhat important
 - Not a big deal
 - Could care less about it

2. How often do you talk about the best way to manage money at home or elsewhere? (Check one)
 - All the time
 - Every so often
 - Rarely
 - Never

3. Write one question about money that you would like answered.

4. What do you want to learn about when it comes to money?

5. What do you plan to do in the future when you start to make money?

6. Are you interested in learning more about money and finances? (Circle one)

Yes No

Bank Magic Post Presentation Assessment

Assessment: (To be used as extension of Independent Practice)

(5 minutes)

Here are some of the qualitative student outcomes resulting from reading this book and its lessons:

Written Assessment Suggestions.

- Ask students to write a 100 word essay on what they learned by reading Bank Magic.
- Ask students to write a 50 word essay on how they plan to save in the future.
- Ask students to write a 50 word essay on the charities or causes they would give their money and their time to and why.
- Have students write a 50 word essay on the importance of hard work.

Follow up: (10 Minutes)

- Ask students to write a list of credit card companies.
- Ask students to put together a list of companies that help buy stocks and mutual funds.
- Ask students to put together a list of things that can go wrong using credit cards and loans.

Other Suggested Activities To Choose

- Identify top performing stocks for the month.
- Students bring in CD ads they research and do the return math.
- Students do profiles on different charities to give to.
- Students do reports on history of the stock market.
- Students discuss taxes based on how much someone makes with brackets at the Federal and state level.

Bank Magic

Financial Literacy for Young People

- Students play monopoly and other “money focused” board games & other games.
- Go through the Federal Government Budget as a group.
- Watch CNBC, Bloomberg, Fox Business.
- Have students write essays about money and share with the group.
- Have a writing contest about money.
- Have students watch informative online videos (i.e. YouTube videos).
- Read and discuss an annual report for a famous company once per month.
- Discuss monthly ways to save food costs and healthy food options.
- End with positive phrases for the month chosen by the students and have student write it in their Journal.
- Group chooses charity of the month to give to. (Money and time.)

Extension Field Trips

- Monthly visits to the local bank to deposit money in a savings account.
- Students visit a local small/ large company employer and discuss as a group and write a report about their experience.
- Students visit hospitals and discuss as a group & write a report about their experience.
- Students visit a local police station and discuss as a group & write a report about their experience.
- Students visit a government office and discuss as a group & write a report about their experience (i.e. Mayor’s office).

School & Community Econ Learning Connection

- Have a representative from a local bank; insurance companies, tax office, stock brokerage firm and other financial services firm come to speak.
- Monthly speaker about their career.



Bank Magic

Financial Literacy for Young People

8 Sickles Avenue
New Rochelle, NY 10801

Phone: 914-278-9241
Kmurray@BankMagicClub.com

