

Lesson One: Introduction to Banking

Goal

Students will learn the financial language associated with banking.

Materials

Index cards, chart paper (parking lot and t-graph) and markers

Lesson Plan

- 1) Using an index card for each student, ask your students to write two true statements and one false statement about the following: "What do I know about money," or "what do people do with their money?" Encourage your students to be creative as the intent is to trick their classmates regarding which statements are true and which is false.
- 2) Allow each student to come to the front of the classroom to read their two true statements and one false statement about money. Remind your students to mix up the order to try and confuse their classmates.
- 3) Allow the class a maximum of three tries to determine which item of the presenting student's three statements is false. If there is one statement in question or challenged, put it on chart paper, under the heading "Parking Lot." This will allow the group to revisit the statement later.
- 4) Capture the true statements on chart paper under the heading "What we know about money!" Guide students toward the understanding that people earn, spend, save, and invest money.
- 5) Remind students that money can be kept in a bank. Instruct students to draw a picture/map of a bank. Tell students to identify and label all of the important people and service locations in or at the bank.
- 6) Create a T-chart of students who have been inside a bank and those who have not been inside a bank.
- 7) Pair the students, keeping in mind that at least one student in each pair must be represented on the T-chart as having been inside a bank.
- 8) Tell your students that they are going to conduct an interview. One student in the pair will be the interviewee (that student should be the one with personal experience of being in a bank) the other student of the pair will be the interviewer.
- 9) Conduct the interviews. Students should focus on the following questions:
 - How old were you when you first went to a bank?
 - Who did or do you go with to the bank?
 - What was your purpose for visiting the bank?
 - Did you see, learn or get anything interesting while at the bank?
 - How many times have you been through a bank drive thru?
 - How many times have you used (with an adult) an ATM?
 - Allow students to create a minimum of three additional questions.
- 10) Provide the paired students with the choice of writing a newspaper-style article or creating a comic strip which would include information gathered from their interview.
- 11) Review the meaning of the following words with the students: ATM, balance, checking account, deposit, withdrawal, overdraft and savings account.
- 12) Ask students to use the terms they just reviewed in the final product for their pair.
- 13) Have students use the revising, editing, proofreading and publishing components of the writing process in completing their final product.

Lesson Two: Saving for Now and the Future

Goal

Students will use fractions, percents, and decimals to calculate interest rates.

Materials

Milk jugs, shoe boxes, art supplies, slips of paper, dice -- 2 per group -- to be used as "multiplication cubes," markers

Lesson Plan

- 1) Ask "Is there an item you want to buy? What is something you would like to use your money to buy this week, this month, or this year?" On the board, list student wants.
- 2) Explain that it is important to have goals, and it is equally important to save money for the unexpected. ("An example of an unexpected expense would occur if you auditioned for the school play and learned you had to buy your own costume.")
- 3) Divide students into groups of five.
- 4) Roll the multiplication cubes to determine who will be the BANKER. (Person with the highest number rolled.) All other students will be citizens of the community.
- 5) Give a shoe box to each of the groups' identified bankers. The banker will use the shoe box to create a commercial bank. Ensure that they understand the following items that they will place on the bank: hours of operation, name of the bank, member of the FDIC (Federal Deposit Insurance Corporation), ATM, etc)
- 6) Give milk jugs to the citizens to decorate as piggy banks. (Remind students to include the piggy's eyes, nose, mouth, legs, tail, ears and money slot.)
[Note to the teacher: the art work on the "commercial banks" and "piggy banks" could be done at home with parents' help.]
- 7) Introduce the following rules of the game:
 - Student to the right of the banker goes first.
 - Student rolls the multiplication cubes and multiplies the two factors on the top of the multiplication cubes, then states the answer to the banker.
 - Banker inputs the factors into a calculator and determines if the answer was correct. If correct, student receives a \$100 note and writes his or her name on the back.
 - Student decides to place the \$100 note in the piggy bank for a day or in the commercial bank for a year.
 - Then it is the next student's turn.
- 8) If time permits, allow the game to go on for a minimum of five rounds.
- 9) Declare the game over. Instruct everyone to return to their seats.
- 10) Tell the students with piggybanks to count their money and collect that information on the board. If a student puts all their money in the bank for a year, skip them.
- 11) Explain that money deposited in a commercial bank can earn interest. To determine how much interest, one must look at three things:
 - Amount of money
 - Length of time
 - Interest rate
- 12) Explain that, in the game, the student could invest the \$100 in the commercial bank for a year. To determine how much a \$100 deposit will earn in one year, students will need to multiply the deposit amount (\$100) by the interest rate (5% or .05) Note for the class that 5% means 5 out of 100.
- 13) Ask "How much money is 5% of \$100?" Write the answer on the board -- $\$100 \times .05 = \5 .
- 14) Ask one banker to come to the front of the room and share what money is in his/her bank. For each \$100 note placed in the bank, the banker shall give the depositor a \$5 note. Explain "After one year, your balance will be the original savings amount, plus the interest earned ($\$100 + \$5 = \$105$)."
- 15) Have the banker do this for each deposit that was placed in his or her bank.
 - Collect that information on the board.
 - Continue through all the bankers.
- 16) Debrief with your students, asking who completed the game with the most money? Was it those who put their money in the piggy bank? Or was it those who deposited their money in the commercial bank?
- 17) Explain "In year two, if those deposits remained in the bank instead of earning 5% interest on your \$100, you will earn interest on \$105. Interest earned on interest is called compound interest." Ask "How much interest will you earn in year two?" Write the answer on the board: $\$105 \times .05 = \5.25 . Have the banker give the depositor \$5.25. Students will add year one interest to year two interest to figure two years of interest (\$10.25). Ask "What is the account balance after two years?" ($\$110.25$)
- 18) Finally, have the students figure year three interest ($\$110.25 \times .05 = \5.51) and the bank balance after three years ($\$110.25 + \$5.51 = \$115.76$). Explain to students that, without compound interest, \$100 in savings would earn \$5 every year. With compound interest, every year, deposits will earn more interest than the initial year's \$5.
- 19) Provide your students with the following writing prompt:

The piggybank and the commercial bank are both great places to save money. Choosing between the piggybank and the savings account usually depends on your savings purpose. Think about two things that you would like to buy: one that would be better to save in a piggybank and one that would be better to save in a savings account at the commercial bank. Explain what those items are, which method you would choose to save for them and why you chose that method. Estimate for each item how long will it take to save enough money to purchase the item.

Lesson Three: Don't Break the Bank!

Goal

Students will use and strengthen their knowledge of fractions, decimals, and percentages to set financial goals.

Materials

Don't Break the Bank Student Worksheet, pencil/pen, measuring cups, rice, 4 Tupperware-type boxes, copy paper

Lesson Plan

- 1) Create a discovery center with measuring cups and rice.
- 2) Provide three sets of measuring cups: 1 cup, $\frac{1}{2}$ cup, and $\frac{1}{4}$ cup. On one set, clearly write 1, $\frac{1}{2}$, $\frac{1}{4}$. On the second set, clearly write 1, .50, .25. On the third set, clearly write 100%, 50%, 25%.
- 3) Allow students to "play" with the cups for a couple of days to prepare them for this activity.
- 4) Use a piece of copy paper for each child.
- 5) Instruct students to fold the paper in half like a hotdog and then half again like a hamburger, creating four equal parts. In the first box, have students write 1; second box, write $\frac{1}{2}$; third box, write $\frac{1}{4}$; and the fourth box remains empty.
- 6) Using the information that was gained by working with the measuring cups, direct students to draw two representations of each fraction. Brainstorm with them regarding what they might use. (Examples: money, time, grades, food)
- 7) Propose the following question to students, "If you get \$4 a week allowance and you save 25% each week, how much money will you have saved in five weeks?" Students should create a picture representation of the problem and solution in the fourth box. (Answer: \$5)
- 8) Ask "If you were to receive the \$4 a week allowance, think about what you might spend your money on."
- 9) Discuss what a budget is. (A financial plan that includes the total amount of money you make each week, month, or year, and how you plan to spend it.)
- 10) Explain that every person and business should use a budget to manage their money. Brainstorm with students regarding who should use a budget (e.g. government, schools, corporations, families, and individuals.)
- 11) Guide students through the process of creating a monthly budget for your classroom.
- 12) Generate, with the class, a list of items that the classroom needs each month. Write a second list of the estimated cost of these items.
- 13) Explain that the classroom budget is \$50 per month. Ask "What can we buy based on this budget? Should we spend more than our budget? Why? Why not?" Explain that it is important to evaluate your money and try to save by cutting back on some expenses.
- 14) Using the budget, created above, determine the percentages, fractions and decimals of your budget for each area. Review how to convert fractions to decimals and percentages, where necessary.
- 15) Distribute *Don't Break the Bank* Student Worksheet. Review the definitions and read Part 1 aloud. Explain that part of the circle has been filled in as an example.
- 16) Guide students through completing the worksheet.

Lesson Four: Easy Online Banking

Goal

Students will use math skills to solve real-world financial problems.

Materials

Easy Online Banking Student Worksheet, pencil/pen, art supplies

Lesson Plan

- 1) Ask "What have you learned about managing your money? What other questions do you have?" Review what your class has discussed about savings accounts, interest, deposits, withdrawals, and budgeting. Guide students through a discussion of online banking, bill paying, and credit or debit cards.
- 2) Explain that many families use their bank's website to help them keep track of their money. This is called online banking.
- 3) Organize students in small discussion groups and have them discuss the following: "Could there come a day when we would no longer need paper money at all?" Create a pro's and con's list of items discussed.
- 4) Have students design a homepage for a bank in a world that no longer uses paper money. Students should focus on ways in which online banking makes it easier to manage your money (e.g., you can do it at home and at any time, it's fast, you can schedule reminders for when bills are due, you can check credit card statements.)
- 5) Introduce some of the potential issues that people need to be aware of when relying solely on online banking (e.g., identity theft, computer viruses, hackers, etc.).
- 6) Allow groups to share their homepage and explain the buttons they created and why.
- 7) Distribute *Easy Online Banking* Student Worksheet and read the first paragraph together. Ask "How much would this business earn in a week?" (Answer: $\$5 \times 4 \text{ dogs} \times 5 \text{ days} = \100) "How many weeks do you have to work to make \$200?" (Answer: 2 weeks).

- 8) Explain that every business has expenses, including this dog-walking business. Ask students what they think the expenses are, then write the following on the board: leashes: \$7 per dog, extra collars: \$4 per dog, dog treats: \$10 per week, clean-up bags: \$10 per week.
- 9) Ask "How much would you need to spend on leashes and collars?" (Answer: $\$11 \times 4 \text{ dogs} = \44) "How much would you need to spend on dog treats and clean-up bags per week?" (Answer: \$20)
- 10) Provide time for students to answer the questions on the worksheet. Review the answers. [1. \$50.00; 2. Need an e-mail reminder?; 3. 2/22/10; 4. Leashes and collars; 5. \$96.00; 6. \$200.00]

Consider this...

When it comes time for you to bank online, know that online banking safety is important to ensure that your account information is safe. As you learned in Lesson 2, always check that your bank is FDIC-insured. Other important tips include keeping your bank PIN/login information private, understanding your bank's security practices, and keeping a personal back-up record on your account for your files.

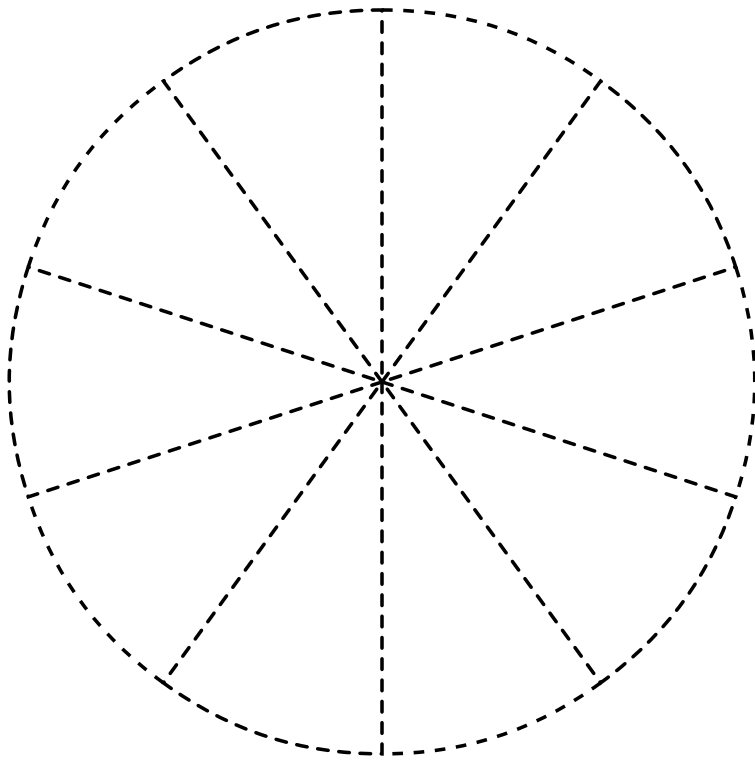
Worksheet One: Don't Break the Bank!

Name:

Part One:

You're on a class trip and you have a budget of \$10. Shade in pieces of the circle below to show what fraction of this you will spend on:

- Snacks
- Lunch
- Gifts for others
- Savings
- Souvenirs for yourself



Part Two:

Write the percent of your budget you plan to spend on each of your expenses:

1. I will spend _____% of my budget on snacks.
2. I will spend _____% of my budget on lunch.
3. I will spend _____% of my budget on gifts.
4. I will put _____% of my budget into my savings.
5. I will spend _____% of my budget on souvenirs.

Part Three:

Think about your own life. How much do you think you spend in one month? Find out.

Use a notebook to keep track of how much you spend and what you buy. On the last day of the month, add everything up to see where your money really went.

Ask yourself: Are you spending your money well, or should you cut back on expenses? Create a personal budget and try to stick to it for one month. At the end of the month, how did you do?

Words to Know!

Budget

A financial plan that includes the total amount of money you make each week, month or year, and how much of that money you should spend on items you need or want to buy.

Expenses

Items you need or want to buy.

Percent

Part of 100; similar to a fraction (part of a whole).

Worksheet Two: Easy Online Banking

Name: _____

Imagine: You've started a dog-walking business along with some help from a parent! Once a day, you take four dogs out for some exercise. You charge \$5 per dog, and work five days a week. After two months, you go online to check your business bank account. This is what you see:

Overview →		Accounts ↓		Transfers →		Pay Bills →		Contact →	
Current Checking Balance: \$96				Current Savings Balance: \$200					
Need an e-mail reminder?				Notifications:					
Transaction Date	Description	Payment Type	Amount	Balance					
1/1/11	OPENING BALANCE	CASH	\$100	\$100					
1/4/11	LAUGHING PAWS PETS	DEBIT	-\$44	\$56					
1/4/11	LAUGHING PAWS PETS	DEBIT	-\$20	\$36					
1/8/11	DEPOSIT	CASH	\$50	\$86					
1/11/11	LAUGHING PAWS PETS	DEBIT	-\$20	\$66					
1/15/11	DEPOSIT	CASH	\$50	\$116					
1/18/11	LAUGHING PAWS PETS	DEBIT	-\$20	\$96					
1/22/11	DEPOSIT	CASH	\$50	\$146					
1/25/11	LAUGHING PAWS PETS	DEBIT	-\$20	\$126					
1/29/11	DEPOSIT	CASH	\$50	\$176					
2/1/11	LAUGHING PAWS PETS	DEBIT	-\$20	\$156					
2/5/11	DEPOSIT	CASH	\$50	\$206					
2/5/11	TRANSFER TO SAVINGS	TRANSFER	-\$100	\$106					
2/8/11	LAUGHING PAWS PETS	DEBIT	-\$20	\$86					
2/12/11	DEPOSIT	CASH	\$50	\$136					
2/15/11	LAUGHING PAWS PETS	DEBIT	-\$20	\$116					
2/19/11	DEPOSIT	CASH	\$50	\$166					
2/22/11	LAUGHING PAWS PETS	DEBIT	-\$20	\$146					
2/26/11	DEPOSIT	CASH	\$50	\$196					
2/26/11	TRANSFER TO SAVINGS	TRANSFER	-\$100	\$96					

- 1) Your business earns \$100 every week. You deposit 50% of what you earn. How much money should you take home each week? _____
- 2) You want to know when your balance reaches \$1,000. CIRCLE the place you would go to ask your bank to e-mail you when your balance is \$1,000.
- 3) When was the last time you bought treats and bags? _____
- 4) What was the \$44 charge for? (Hint: Check the list on the board.) _____
- 5) What is your checking account balance? _____
- 6) What is your savings account balance? _____

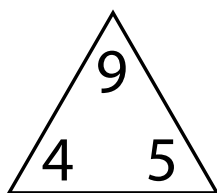
Tips & Tricks

Welcome to the Tips and Tricks section of the educator's What's on the Menu? resource. Like your old recipe favorites, tried and true, you might want to dust off some of the following ideas and bring them back into your teaching repertoire. When exploring the world of elementary mathematics, children need to understand it on two levels. One is the ability to compute and understand the process. The second is to see and know their math facts with automaticity just like they do with sight words. This automaticity builds a child's confidence and allows for computation fluency to occur. The following quick Tips and Tricks focus on process and quick recall.

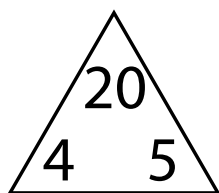
Fork, Knife and Spoon Equations

This tool is helpful when you begin to introduce, in an abstract manner, a new set of math facts to your students. (Addition, subtraction, multiplication and division) FKS Equations let students see the relationship between addition and subtraction, as well as multiplication and division. It will also serve visual learners as they will see the answer vs. a traditional blank.

Addition/Subtraction



Multiplication/Division



Equation Cubes

Carry two or three dice in your pocket at all times. Whenever you are in need of filler, perhaps 4 minutes early for computer lab, pull out the equation cubes and try the following:

- Roll two cubes and have students tell you the answer. You can do addition or multiplication.
- Set two cubes, focusing on the facts that you are working on, and roll the third. Have students tell you the answer. You can do addition or multiplication.
- Roll two cubes and have every student think of an equation utilizing the two numbers.

Decimals, Money, Percents & Fractions

The flow between decimals or money, percents and fractions is a pattern that students need to identify and utilize. Using measuring cups introduce the concept by writing the fraction, percent and decimal on each one.



Graph Paper

When students are working on long computations, utilize graph paper to keep the numbers and the process properly aligned and easy to read.

Example:

	1	2
+	2	0
	3	2

Graph paper can also be used to illustrate fractions in a semi abstract way.

Don't forget the power of games! Multiplication/division bingo and addition/subtraction bingo are excellent opportunities to allow students to practice math facts. In one game they could review over 100 facts.