



Table of Contents

Introduction

Why Manipulatives?	3
What's Included in the Kit?	4
What's Included in the Teacher's Guide?	6
Lesson Plan Breakdown	8
Suggestions for Implementation	12

Getting Started

Meet the Manipulatives	13
Foundational: Play Time!	14
Level I: Fun Time!	15
Level II: Tool Time!	16

Building Vocabulary	17
Foundational: Match It!	18
Level I: Write It!	19
Level II: Teach It!	20

Getting to Know Coins

F: Sorting and Counting Coins	21
<i>Sort It! Activity Board</i>	26
<i>Coin Close-up Sheet</i>	27
<i>Coin Caterpillars Game Activity Sheet</i>	28
<i>Game Shop Assessment</i>	29
I: Identifying Coins	30
<i>Total It! Activity Board</i>	35
<i>Coin Counter Sheet</i>	36
<i>Party Planning Activity Sheet</i>	37
<i>Party Presents Assessment</i>	38
II: Comparing Coin Values	39
<i>Compare It! Activity Board</i>	45
<i>Coin Cruncher Tool</i>	46
<i>Grocery List Activity Sheet</i>	47
<i>Grocery Shopping Assessment</i>	48

Adding with Coins

F: Adding with Coins (Within 10)	49
<i>Adding Within 10! Activity Board</i>	54
<i>Number Cards Sheet</i>	55
<i>Soccer Shopping Activity Sheet</i>	56
<i>Sort, Shoot, Score! Assessment</i>	57
I: Adding for Total Value with Like Coins (Under \$1) ..	58
<i>Adding Like Coins Activity Board</i>	65
<i>Let's Add! Sheet</i>	66
<i>Basketball Buddies Activity Sheet</i>	67
<i>Coins on the Court Assessment</i>	68
II: Adding for Total Value with Mixed Coins (Under \$2) ..	69
<i>Seventh-Inning Snacks Sheet</i>	77
<i>Adding Mixed Coins Activity Board</i>	78
<i>Add It Up! Sheet</i>	79
<i>Adding the Bases Activity Sheet</i>	80
<i>Pitching In! Assessment</i>	81

Subtracting with Coins

F: Subtracting with Coins (Within 10)	82
<i>Tiger Puppet Template</i>	87
<i>Subtracting Within 10! Activity Board</i>	88
<i>Feeding Fun Activity Sheet</i>	89
<i>Roar Store Assessment</i>	90
I: Subtracting with Like Coins (Under \$1)	91
<i>Subtracting Like Coins Activity Board</i>	98
<i>Let's Subtract! Sheet</i>	99
<i>Dolphin Diner Activity Sheet</i>	100
<i>Shark Shop Assessment</i>	101
II: Subtracting with Mixed Coins (Under \$2)	102
<i>Tough Decisions Sheet</i>	110
<i>Subtracting Mixed Coins Activity Board</i>	111
<i>Take It Away! Sheet</i>	112
<i>Ready to Ride Activity Sheet</i>	113
<i>Showtime! Assessment</i>	114

Financial Literacy

F: Making Choices	115
<i>Goods and Services Sheet</i>	120
<i>Using Money Activity Board</i>	121
<i>Making Choices Activity Sheet</i>	122
<i>Money Counts Activity Sheet</i>	123
<i>My Money Assessment</i>	124
I: Money Matters	125
<i>Wants vs. Needs Sheet</i>	130
<i>Spending and Saving Activity Board</i>	131
<i>Common Cents Activity Sheet</i>	132
<i>Spending Money at School Assessment</i>	133
II: "Centsability"	134
<i>Money Problems Activity Board</i>	139
<i>Spinner Sheet</i>	140
<i>Team Plan Sheet</i>	141
<i>A Day in the City Activity Sheet</i>	142
<i>Coins in the City Assessment</i>	143

Culminating Activity

Student Swap Meet	144
<i>Earning Pennies Activity Sheet</i>	148
<i>Earning Coins Activity Sheet</i>	149
<i>Earning Money Activity Sheet</i>	150
<i>Student Swap Meet Sign</i>	151
<i>Sign Template</i>	152
<i>Price Tag Template</i>	153
<i>Certificate Template</i>	154

Appendix

Tool Rules	155
Working as a Team	156
Glossary	157
Answer Key	158
<i>I Got It! Certificate</i>	160

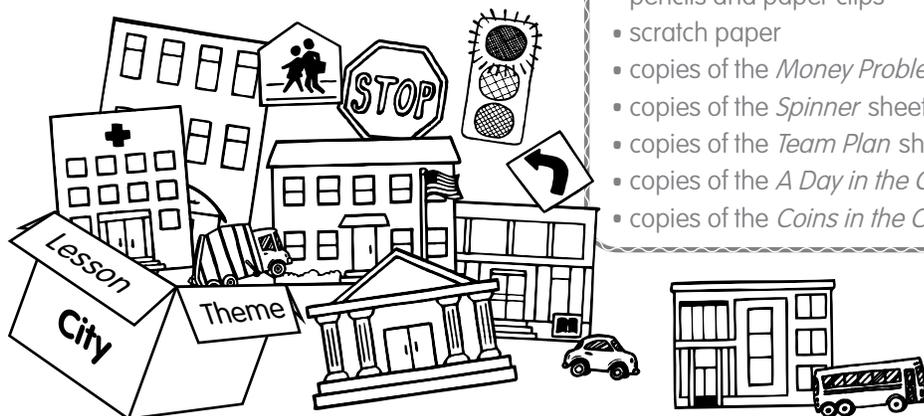




"Centsability"

Content Goals

- Students will know people earn money to buy things they want and need.
- Students will recognize the exchange of money for goods and services.
- Students will use addition and subtraction to solve word problems involving money under two dollars.



Manipulatives

- magnetic coin manipulatives (teacher only)
- pennies (10 per student)
- nickels (10 per student)
- dimes (10 per student)
- quarters (10 per student)

Materials

- three-ounce paper cups (four per student)
- pencils and paper clips
- scratch paper
- copies of the *Money Problems Activity Board* (page 139)
- copies of the *Spinner* sheet (page 140)
- copies of the *Team Plan* sheet (page 141)
- copies of the *A Day in the City* activity sheet (page 142)
- copies of the *Coins in the City* assessment (page 143)

Let's Talk!

Note: Prior to class starting, sort the play coins into the paper cups to distribute to students. Have students keep the coins in the cups when they are not using them.

Step 1: Get students talking about cities in general. Ask them, "What makes up a city? What do you see in a city?" (*post offices, fire stations, schools, banks, hospitals, libraries, markets, offices, homes, parks, stores, people, animals, etc.*) Ask them to think about their city. Say, "What is your favorite thing about your city?" Have students draw a picture and share it with the class.

Step 2: Talk with students about the different ways people can earn money working in a city. (*firefighter, chef, postal worker, teacher, actor, etc.*) Then talk about the different ways people can spend money in the city. (*buying food, going to a play or movie, visiting a doctor, getting a haircut, buying clothes, etc.*) Tell students that lots of money exchanges hands in a busy city every day. Explain that it is important for people to make wise choices about using money.

Step 3: Ask students the essential question. Explain that everyone has to make tough decisions about money, and in this lesson they are going to learn about the different choices people have to make. They will come to see why it is important to know how to add and subtract money and to use it responsibly.

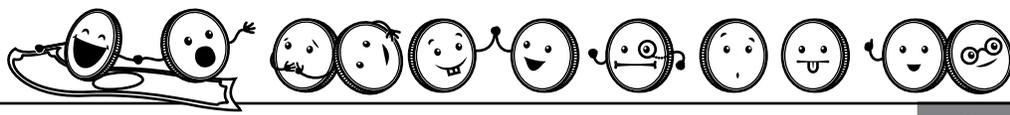
Essential Question

How can we use money wisely?

Rules Reminder

Remind students that they must follow the rules when working with manipulatives. Read the rules aloud before distributing the manipulatives. (See page 155.)





All Together Now!

Step 1: Distribute copies of the *Money Problems Activity Board* (page 139) to students. Give each student 4 cups of coins (10 pennies, 10 nickels, 10 dimes, and 10 quarters). Have students place the cups above their activity boards. Instruct students not to touch the coins again until you tell them to. Also, give students 1 sheet of scratch paper.

Step 2: Ask students, "What can people do with money that they have earned?" Talk about the different ways people use money. Tell students that some people may save their money to buy something later or in case of emergencies. There could be an unexpected situation such as getting sick and having to buy medicine, or having a car break down and needing repairs. Ask students if they can think of reasons people may save some of their money.

Step 3: Tell students if people are not saving their money, they are spending it. They are either buying a good or a service. They are trading the money they earned by working for something they want or need. Explain that a *good* is something a person buys, such as a pencil, an apple, or a car. A *service* is an action that a person does for someone else. Doctors provide a service; they help people feel better. Teachers provide a service; they help students learn. Auto mechanics provide a service; they fix people's cars. Ask students if they can think of more services that people may spend money on.

Step 4: Discuss with students that people can also donate some of their money to charity. This is giving money to those in need. They may give some money to a food bank, which helps feed people who do not have enough money to buy food. Or they may give money to a pet shelter that helps take care of animals that do not have homes. Brainstorm as a class to think of different places to which people could donate money to help others in need.

Step 5: Tell students that people cannot buy everything they want. They may not have enough money. So, they have to make wise decisions. They first have to buy things they need. Ask students, "What are some things people need to survive?" (*food, water, shelter, blankets, clothes, shoes, medicine, etc.*)

Step 6: Talk about the difference between wants and needs. Go around the room and ask students to name something they would want to buy if they had enough money. Explain the difference between goods and services that are wants (books, haircuts, toys, desserts, etc.) and the things people need to survive.

Step 7: Before beginning to solve problems with students, briefly review the coins by asking the following questions. Have students hold up the correct play coin to show the answer.

- Which coin features Abraham Lincoln? (*penny*)
- Which coin is the largest coin out of the four? (*quarter*)
- Which coin is the smallest coin? (*dime*)
- Which coin is silver colored but has a smooth edge? (*nickel*)

Step 8: Remind students that each coin has a different value. Ask the class the following questions.

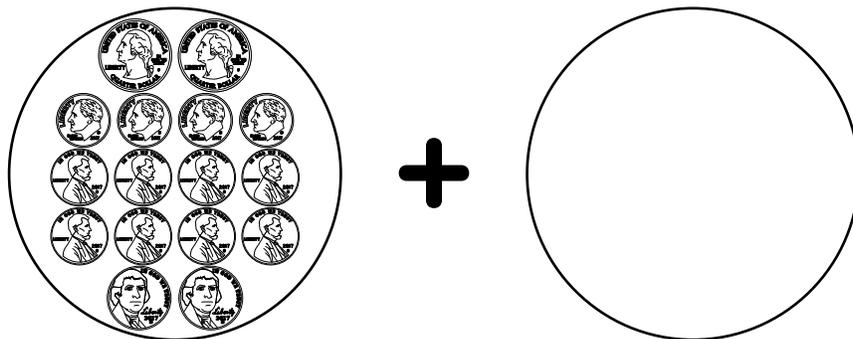
- If you have 3 dimes, how much money do you have? (*30 cents*)
- If you have 1 quarter, how much money do you have? (*25 cents*)
- If you have 2 nickels, how much money do you have? (*10 cents*)
- If you have 12 pennies, how much money do you have? (*12 cents*)





All Together Now! (cont.)

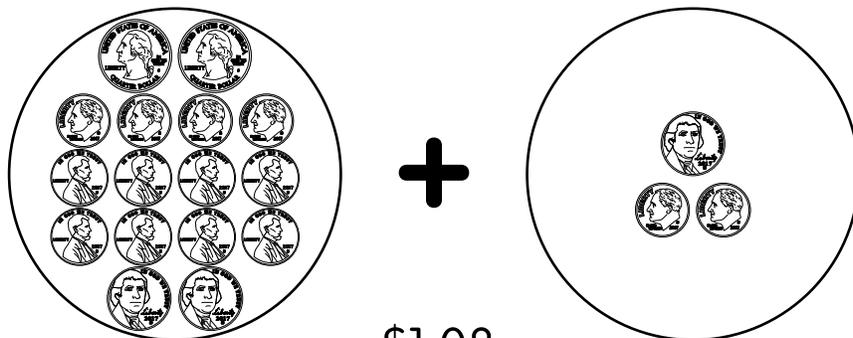
Step 9: Recreate the *Money Problems* activity board on the classroom board. Say, "Let's think about some money math problems you might have to solve in the city. We can use our coins to help us find the answers." Have students place 2 quarters, 4 dimes, 2 nickels, and 8 pennies in the first circle on the activity board. Do the same on the classroom board with the magnetic manipulatives. Tell students it's okay if some of the coins spill out of the circle as long as they do not go past the addition sign.



Step 10: Ask students, "How much money do we have in this circle?" Count aloud as a class. Count the quarters first (50¢), then count the dimes by tens (60, 70, 80, 90), then the nickels by fives (95, \$1), and finally the pennies by ones to get a total of \$1.08. **Note:** You may need to review adding quarters. You may choose to create a chart on the board similar to the one shown to the right.

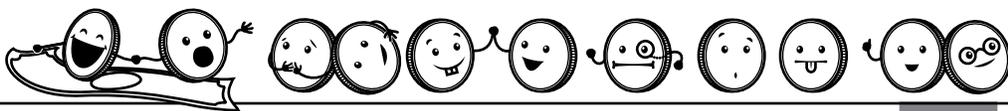
	= 25¢
	= 50¢
	= 75¢
	= \$1.00

Step 11: Say, "We know we have \$1.08 in our pocket. As we are walking down the city street, we see an elderly woman who needs help carrying her groceries. We run to help her. She is so thankful she gives us 2 dimes and 1 nickel." Have students place 2 dimes and 1 nickel in the second circle. Ask, "How much did the lady give us?" (25¢) "Now, how much money do we have in total?" Ask students what two numbers they need to add together. Write the following number sentence on the board: "\$1.08 + 25¢ = ." Explain to students why it might be easier to write it as follows: "\$1.08 + \$0.25." Say, "This way, when we add the numbers, the decimal points are lined up.



$$\begin{array}{r} \$1.08 \\ + \$0.25 \\ \hline \end{array}$$





All Together Now! *(cont.)*

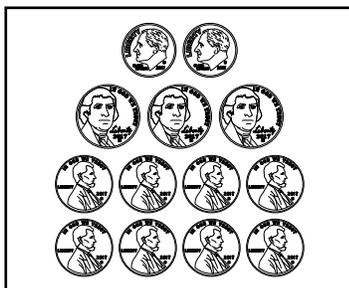
Step 12: Help students solve the problem as shown below. Have students write it out on their scratch paper. Remind them how to regroup when adding money. Have them check their answers by pushing all the coins into the second circle and counting the total aloud as a class.

$$\begin{array}{r}
 \$ \quad \text{¢} \\
 1 \quad | \quad 08 \\
 + \quad | \quad 25 \\
 \hline
 1 \quad | \quad 33 \\
 \hline
 \$1.33
 \end{array}$$

Step 13: Say, "Now we have \$1.33 in our pocket." Have students move their \$1.33 in coins down to the first box on their activity boards. Do the same on the classroom board with the magnetic manipulatives. Say, "We continue walking down the street and we smell pizza. Mmmm. We decide to buy a slice. It costs 90¢. After we pay for the pizza, how much money will we have left? We need to make sure we will have at least 40¢ left to take the bus home."

Step 14: Have students move 90¢ into the "spending square." Help them count out 90¢ using the 2 quarters and 4 dimes. Write the following number sentence on the board: "\$1.33 - 90¢ = ." Ask students, "What is a better way to write this number sentence to make it easier to subtract the numbers?" Have a student volunteer come to the board and rewrite the number sentence vertically as shown below.

$$\begin{array}{r}
 \$1.33 \\
 - \$.90 \\
 \hline
 \end{array}$$



spending square



$$\$1.33 - 90¢ =$$

Step 15: Help students solve the problem as shown below. Have students write it out on their scratch paper. Remind them how to regroup when subtracting money. Have them check their answers by counting the coins in the first box.

$$\begin{array}{r}
 \$ \quad \text{¢} \\
 \cancel{1} \quad | \quad 33 \\
 - \quad | \quad 90 \\
 \hline
 0 \quad | \quad 43 \\
 \hline
 43¢
 \end{array}$$

Step 16: Ask students, "We need 40¢ to take the bus home. Do we have enough money?" Ask students how much money will be left after taking the bus home. (3¢)





Teamwork Time!

Step 1: Review the *Working as a Team* rules sheet (page 156) with students. Place students in small groups. Use 1 set of coins (10 of each type) and 1 activity board per group. Also distribute 1 *Spinner* sheet (page 140), 1 *Team Plan* sheet (page 141), and 1 paper clip to each group. Tell the teams they are each going to solve their own individual math problems. They will also decide how they will use their teams' money.

Step 2: Have 1 member from each team take 2 of each type of coin and place them in the first circle on the activity board. Then have another team member place the loop of a paper clip over the dot on the spinner. Have that student place the tip of a pencil on that dot and use the other hand to spin the paper clip. If the opposite end of the paper clip lands on 25¢, have another group member place a quarter in the second circle on the activity board. (If it lands on 10¢, have them place a dime in the circle, 5¢, a nickel, and 1¢, a penny.) Have students take turns spinning the paper clip. Have each group member spin for a total of 6 spins.

Step 3: After 6 spins, have the team members work together to write an addition number sentence on the *Spinner* sheet based on the coins in the circles on their activity board. Have them solve to find the total value of coins. They can use the back of the spinner sheet as scratch paper.

Step 4: When teams have finished, have them move the coins from both circles into the first box on the activity board. Then have students repeat Step 2, but this time, they will *take away*, or subtract, coins and will only spin 3 times. For example, if the paper clip lands on a quarter, then have the team move a quarter to the spending square.

Step 5: After 3 spins, have the team members work together to write a subtraction number sentence on the *Spinner* sheet based on the coins in the boxes on their activity boards. Have them solve to find the difference in value between 2 sets of coins. They can use the back of the spinner sheet as scratch paper.

Step 6: Lastly, have students come up with a plan for how they will spend the money they earned. Have team members work together to complete the *Team Plan* sheet (page 141). Have each team share its plan with the class. Review why it is important to make wise decisions when it comes to spending and saving money.



You Can Do It!

Step 1: Distribute copies of the *A Day in the City* activity sheet (page 142) to students. Tell students they can use their coins and activity boards to help them if they need them. Suggest that students start with 4 quarters, 4 dimes, and 7 pennies. Read the directions aloud. You may wish to read each sentence one at a time as students solve each problem. Have students complete the number sentences independently.

Step 2: When students have finished, go over the answers as a class. Ask students if they were able to find the answers without using their coins. If so, how did they do it? Discuss as a class how drawings and counting on fingers can help students if they do not have manipulatives.



Show What You Know!

Distribute copies of the *Coins in the City* assessment (page 143) to students. Tell students they can use their coins, cross out coins, or count on their fingers if needed. Read the directions aloud to students. Make sure they understand what they are being asked to do.

Put It in Words!

Read the prompt aloud.

Imagine you are in the city. You have \$1.50. You need to eat lunch, but you also want to buy a book. What should you do? How can you spend your money wisely?

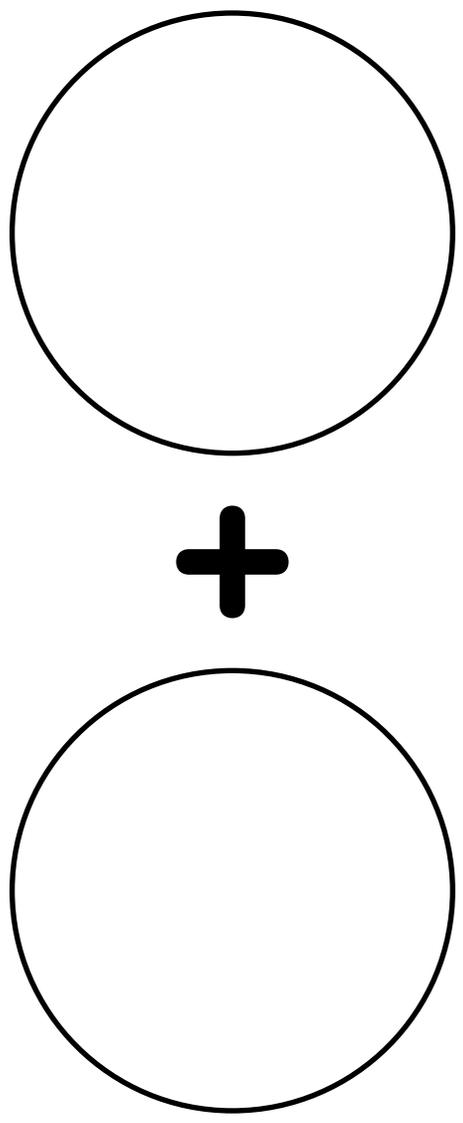
Have a class discussion about spending money wisely on wants vs. needs. Talk about using addition and subtraction to find out how much money you can spend and how much money you should save. Then have students write what they know about using money wisely in their math journals.





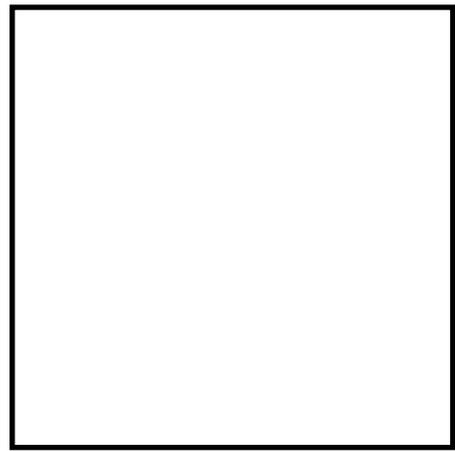
Name: _____

Money Problems Activity Board

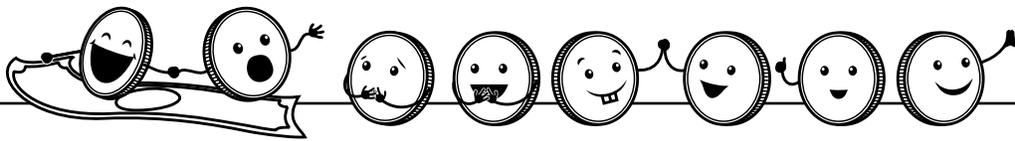


_____ + _____ = _____

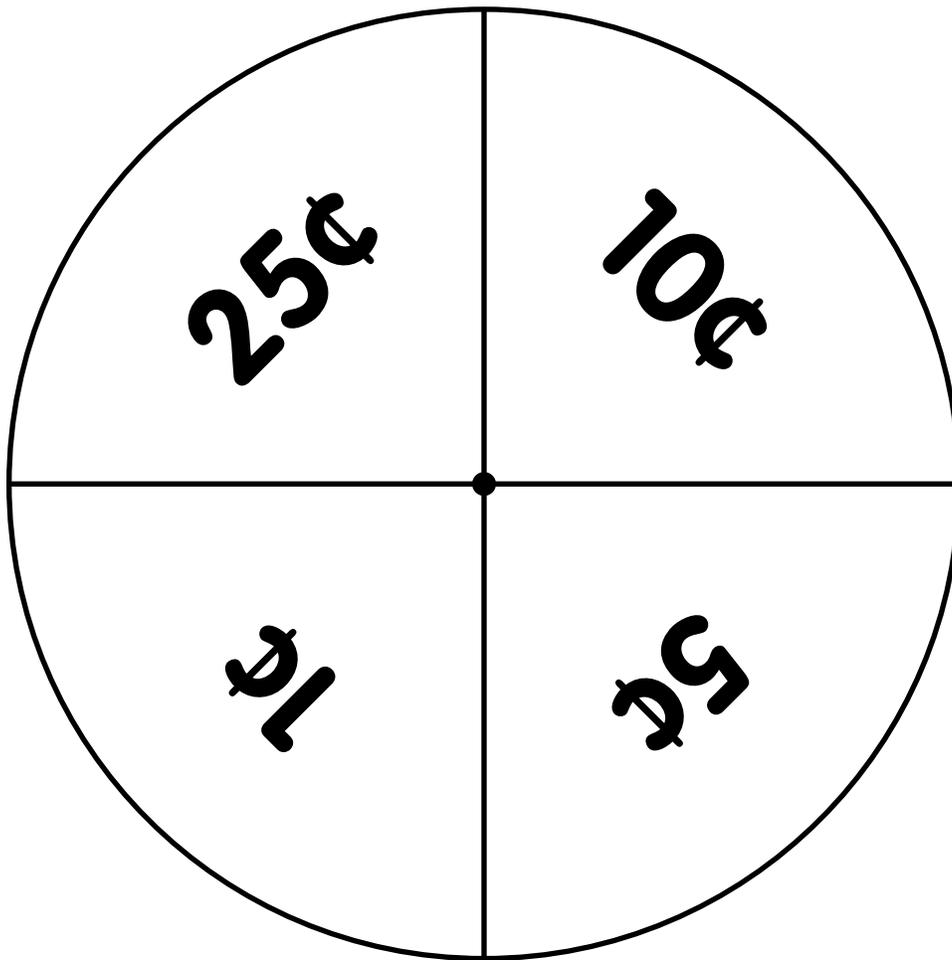
_____ spending square (-)



_____ - _____ = _____



Spinner



$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \boxed{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \boxed{\hspace{2cm}}$$



Names: _____

Team Plan

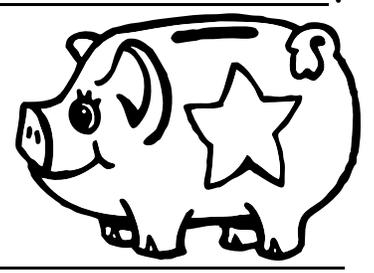
Spend



We want to spend _____.

We will spend it on _____.

Save



We want to save _____.

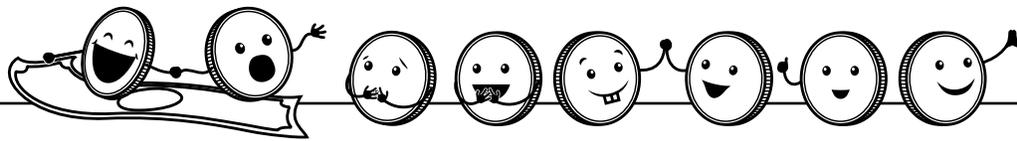
We will save it because _____.

Give



We want to give _____.

We will give it to _____.

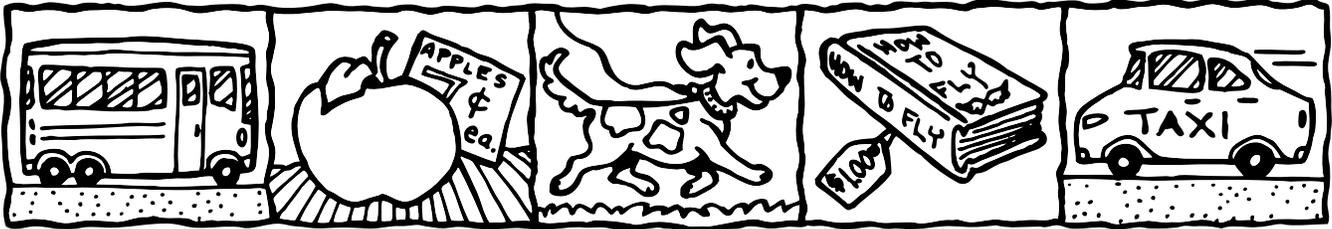


Name: _____

A Day in the City

Directions: Read Rosa's story. Keep track of Rosa's money for her. Write a number sentence each time she uses money. Solve each number sentence as you read. Write how much money Rosa has at the end of the day in the answer box.

Rosa had \$1.47. She was headed to the city for a fun day.



1. First, Rosa got on the bus. It cost 10¢.
2. Next, Rosa bought an apple. It cost 7¢.
3. Then Rosa walked a friend's dog. She earned 25¢.
4. After that, Rosa went shopping. She bought a book for \$1.00.
5. Lastly, Rosa took a taxi home. It cost 20¢.

How much money does Rosa have left?

1	_____	-	_____	=	_____
2	_____	-	_____	=	_____
3	_____	+	_____	=	_____
4	_____	-	_____	=	_____
5	_____	-	_____	=	_____





Name: _____

Coins in the City

Directions: Read each problem. Write a number sentence. Show your work. Write the answer in the answer box.

1 Carl found the coins below in the city. He spent 7¢ on a toy. How much money does Carl have left?



.....
2 Cindy went to her job in the city. She earned the coins below. She also has 32¢ in her coin bag. How much money does Cindy have in all?

