

Intro to Adding Money and Decimals: Teacher Notes

To give the students an idea of how pennies turn into dollars, start with this example. Start class by putting one hundred pennies underneath your document camera. Have a dollar bill and some extra pennies nearby to show how to convert pennies to dollars when you reach one hundred.

“We are going to count these pennies and see how many I have. How can we group these pennies to easily count them?”

Students might suggest counting in 5s or 10s--have students count the coins in groups of 10 if possible.

Choose a student to lead the class in counting the pennies by grouping them into tens. When the class gets to 100, I ask, *“how much money do I have?”* Some students might suggest that we have 100 cents. Others might remember that 100 cents equals one dollar.

Then, add a few more pennies. Ask the class, *“How much money do I have now?”* Some students might still suggest 103 cents and others might understand this is equivalent to \$1.03.

How many pennies are in one dollar?

*When I have 100 pennies, I have a dollar. When I have 101 pennies, I have one dollar and one cent, which we write like this **(\$1.01)**. Our decimal point separates the dollar amount from the cent amount.*

Then I exchange 100 pennies for a dollar bill and leave the extra pennies on the document camera. Put the dollar bill and the pennies out and make a decimal point between them. Tell the students that the decimal point ALWAYS goes between the dollars and the cents.

Now, I have the problem of the day for you:

I divide the class into heterogeneous groups of three or four and give them a bag of coin manipulatives. If you don't have coins on hand, students can draw coins that would make up the correct amount for each item purchased. Be sure to show an example of how to draw the coins (a circle with the amount each coin is worth) to add them up. If your students are still learning coins and their values, leave the example on the board with each coin labeled and the value they each hold.

Name _____ Date _____

Say, “Use the coins in front of you to show me how much money I need to buy the muffin, the donut, and the cupcake. (Use the sheet below, with the prices for each, on the document camera.)

As students work, circulate and check for understanding, asking students to explain how much money is needed.

When finished, ask two or three students to share how much money is needed and how they figured it out.

Continue to push students to understand that 100 cents are in one dollar: *I see that you have 143 cents. How else can we write this amount?*

When finished discussing using the coin manipulatives, hand students whiteboards and explain that we're going to do the same problem using column addition. Remind students to line up the decimal points and then allow them to solve the problem on their own.

Afterward, have at least one student model how they solved the problem, modeling how they dropped the decimal point and created a dollar.

If time permits, have students do another problem on their whiteboards before releasing students to the guided practice.

Name _____ Date _____

Last night, I went to the store and saw some treats I wanted to buy. I saw a muffin for \$.33, a donut for \$.68, and a cupcake for \$.75. What is the exact amount of money I'll need? If I only have dollar bills, how many will I need?

Sums of Money – Step by Step Lesson

Leah has \$6.79. Whitney has \$3.42. How much do they have together?

Explanation: When finding the value of sums of money, it is just like adding decimal values. For that reason, we add from left to right.

Helpful hint: When adding money, stack the values!

Step 1:

				1		
	\$	6	.	7		9
+	\$	3	.	4		2
\$.			1

$9+2=11$. One 1 goes below, and one 1 is added to the next column over.

Step 2:

		1			1	
	\$	6	.	7	9	
+	\$	3	.	4	2	
\$.	2	1	

$7+4+1=12$

The 2 goes below, and the 1 adds to the next column over.

Step 3:

		1		1		
	\$	6	.	7	9	
+	\$	3	.	4	2	
\$	1	0	.	7	1	

$6+3+1=10$

The 0 drops below the 6 and 3, the 1 goes in the next column over.

Final Answer: \$10.71

Sums and Differences of Money – Practice

Find the value after performing the operation that is required.

1)

$$\begin{array}{r} \$ 3.79 \\ + \$ 5.43 \\ \hline \end{array}$$

2)

$$\begin{array}{r} \$ 8.27 \\ - \$ 3.63 \\ \hline \end{array}$$

3)

$$\begin{array}{r} \$ 1.77 \\ + \$ 6.32 \\ \hline \end{array}$$

4)

$$\begin{array}{r} \$ 6.82 \\ - \$ 4.91 \\ \hline \end{array}$$

5)

$$\begin{array}{r} \$ 7.12 \\ + \$ 2.30 \\ \hline \end{array}$$

6)

$$\begin{array}{r} \$ 5.80 \\ - \$ 4.93 \\ \hline \end{array}$$

7)

$$\begin{array}{r} \$ 6.41 \\ - \$ 2.71 \\ \hline \end{array}$$

8)

$$\begin{array}{r} \$ 8.48 \\ + \$ 2.73 \\ \hline \end{array}$$

Classroom Marketplace

In groups, you will develop an item to sell in our Classroom Marketplace. You will have one class period to make as many items as possible, so work fast!

Guidelines:

1. Each group will decide on one item to make – items do not need to be exact replicas, but they should all be similar. One description of your item should cover the lot of them.
2. You will have one class period to complete the construction of all your items.
3. Supplies to make your marketplace items will be provided.
4. Set the price of your item. The price of your item may not end in a 5 or 0 and must be under \$1.00. Approve the price of your item with your teacher.
5. Make a sign with your team's name, a description of your item, and the price you will sell them for.

Market Day: Each **student** needs a sheet to keep track of their purchases, and each **group** needs a sheet to keep track of their sales.

1. One group member will stay at your marketplace booth throughout Market Day.

2. Each group member will have a chance to shop in the marketplace.
3. You will keep track of each purchase on your ledger.
4. After each purchase you will add the purchase to your total.
5. You may not purchase over \$8 in marketplace goods.
*Teachers may adjust this number based on the number of marketplace groups in class and the prices they've set for their goods.

Working your marketplace stand:

1. Before making your first sale, your marketplace team must take inventory of your goods. How many items were you able to create? How many do you now have available to sell? Are any discounted because they didn't turn out quite right?
2. If you are working at your stand, you must keep track of each purchase and add it to your sales total. The person(s) working at the stand must do the math for each transaction to find the total you've made from your sales.

