Bills and Coins Word Problems

Teacher		**Class**	Grade 2
Subject	Math	**Topic**	Counting money
Date		**Room**	
Lesson length	60 minutes	**Country**	United States

Students learn to solve money word problems with bills and coins. They play a relay to add totals and write $ and ¢ correctly.

Curriculum links

- Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.

Learning objectives

- Students will solve word problems using $1, $5, $10 bills and coins.
- Students will add bills first, then coins, then combine both totals.
- Students will write answers correctly with $ for dollars and ¢ for cents.

Success criteria

- I can count bills and coins to solve a word problem.
- I can add bills, add coins, then add together.
- I can write $ when $1 or more and ¢ when less.

What students already know

Show a penny, nickel, dime, quarter and $1 bill. Ask: What is each worth and which coin is biggest in value?

Key words

cent	Tiny part of money. One hundred make $1 [1].
dollar	Big unit of money. Written with $ like $2 [3].
quarter	Silver coin worth 25 tiny parts [6].
dime	Small silver coin worth 10 tiny parts [6].
nickel	Coin worth 5 tiny parts [1].
total	All the money counted together as one amount.

Materials

- play $1, $5, $10 bills
- play quarters, dimes, nickels, pennies
- team answer boards and markers
- Slides 1-4, 6-7, 12
- Video clip 1 dollar bills and coins - 2.MD.8 (0:00–4:50)
- Worksheet Task C copies

Before the lesson

- Print Worksheet Task C for each team and test Slide 6 with Video clip 1 (0:00–4:50)
- Set out play $1, $5, $10 bills, play coins, and team answer boards
- Load Slides 1-4, 6-7, 12 and place picture coin-value chart where all can see

Created with LessonDino.com · AI lesson planner with checkable sources

- mini whiteboards

Lesson outline

0–10 min **Starter** 10 min · Whole class

Recall coin and bill values and hook students into solving word problems.

YOU DO

1. Show Slide 1 Counting Money! Solving word problems with bills and coins and read the title together.
2. Show Slide 2 Think, pair, share question: If you had $2, what would you buy at a store? Give 2 minutes to share.
3. Show Slide 3 Money We Use mindmap: penny = 1¢, nickel = 5¢, dime = 10¢, quarter = 25¢, bills = $1, $5, $10, $20 and chant values.
4. Use the hook: The shopkeeper has a long line at the register! Which team can add the money fast and get it right?

STUDENTS DO

1. Tell a partner what they would buy for $2 and listen.
2. Say each coin value aloud and point to the matching play coin.
3. Call back the hook line and show ready hands for the relay.

Say: Today we are money problem solvers. We will count bills and coins to find exact totals. The shopkeeper needs fast, correct teams, so let us warm up our counting.

Ask: Which coin is worth 25 cents and which is worth 10 cents? (Quarter is 25 cents and dime is 10 cents [6].) · What bills will we use today? ($1, $5, $10, and $20 bills [3].)

Check understanding: Hold up play coin when you name its value. If mixed up, point again to Slide 3 chart and repeat dime 10¢ and nickel 5¢.

Support: Give a picture chart that shows each coin with its cent value for quick reference [5]. **Stretch:** Name two different coins that together make 30 cents and explain how you know.

Use: Slides 1-3

10–20 min **Teaching** 10 min · Whole class

Model the biggest-first 3-step plan for bills-and-coins problems.

YOU DO

1. Show Slide 4 100 Cents Make a Dollar: When coins pass 100 cents, we trade them for 1 dollar. Every 100 cents is 1 dollar [1].
2. Show Slide 7 How to Solve It: Start with biggest coin or bill. Add coins, then add bills. 100¢ = $1. Trade up. Write $ for dollars, ¢ for cents only.
3. Model with play money biggest first: lay $5 and $1 in one row, 2 dimes and 1 penny in another row.
4. Think aloud adding larger bills first, then smaller ones [1], then coins, then the two totals together [1].

STUDENTS DO

1. Watch, count along, and repeat running totals.
2. Say the bills part and the coins part before the joined total.
3. Write $6.21 on mini whiteboards and hold up.

Say: Good solvers start with the biggest bill or coin. We add all the bills, then add all the coins. Then we put the two parts together and write $ or ¢.

Worked example: A student pays for a book with one $5 bill, one $1 bill, 2 dimes, and 1 penny. How much is that? Bills: $5 + $1 = $6, adding larger bills first [1]. Coins: 10 + 10 + 1 = 21 cents. Add the two totals together [1]: $6 + 21¢ = $6.21, written in dollar-and-cent notation [3].

Ask: Why do we count quarters before dimes, nickels, and pennies? (A mixed set is counted from the largest value down [3].) · After we add bills and add coins, what do we do? (Add the two totals together [1].)

Check understanding: Check whiteboards for $6.21 and correct $ sign. If $ missing, remodel bills row and coins row and rejoin.

Support: Let students first lay bills in one row and coins in another row, then add each row [1]. **Stretch:** Explain to a partner why the answer uses $ and not ¢.

Use: Slides 4, 7

20–30 min **Guided Practice** 10 min · Whole class

See biggest-first counting and $ and ¢ writing in a worked video example.

YOU DO

1. Show Slide 6 Watch: Count Bills and Coins. Tell class: Watch where $ and ¢ go. Watch biggest-first counting.
2. Play Video clip 1 dollar bills and coins - 2.MD.8 (0:00–4:50). Pause once to point to biggest-first order.
3. Rebuild the video total with class play money using skip counting by 5s, 10s, and 25s [3].
4. Compare a cents-only total with a dollars-and-cents total on the board.

STUDENTS DO

1. Watch, whisper-count, and show thumbs when $ appears.
2. Count along 25, 50, 60, 65 for a sample set.
3. Read 57¢ as fifty-seven cents and $1.47 as one dollar and forty-seven cents.

Say: Watch how the counter starts big and keeps a running total. Listen for counting by 5s, 10s, and 25s. Notice when the answer needs $ and when it needs ¢.

Worked example: Coins that are 25 + 25 + 5 + 2 = 57 cents [1] stay as 57¢. Coins that are 147 cents = 1 dollar and 47 cents = $1.47 [1], because each dollar is worth 100 cents [1] and every 100 cents is 1 dollar [1].

Ask: When do we write ¢ and when do we write $? (Totals under 100 cents use ¢ and totals of one dollar or more use $ with dollar-and-cent notation [3].) · What is 100 cents the same as? (1 dollar [1].)

Check understanding: All point to $ or ¢ cards for 57¢ and $1.47. Reteach with 100¢ = $1.00 trade if split.

Support: Keep the coin-value strip at eye level so students can glance at start numbers [5]. **Stretch:** Say why 99¢ stays with ¢ but 101 cents must become $1.01.

Use: Slide 6 with Video clip 1 (0:00–4:50)

30–50 min **Main Activity** 20 min · Groups

Solve bills-and-coins word problems in the Bills First Relay.

YOU DO

1. Hand out Worksheet Task C: Add bills first, then coins, then join them, plus play money and team boards.
2. Read Problem 1 aloud: A student pays for a book with one $5 bill, one $1 bill, 2 dimes, and 1 penny. How much is that?
3. Read Problem 2 aloud: A student buys pencils with one $1 bill, 1 quarter, 1 nickel, and 2 pennies. How much is that?
4. Read Problem 3 aloud: A student pays for a ball with one $5 bill, 2 quarters, and 1 dime. How much is that? Start relay rounds and check boards.

STUDENTS DO

1. In teams, build each problem with play money, sort largest to smallest, and skip count.
2. Write each total with $ or ¢ on the team board and hold up: $6.21, $1.32, $5.60.
3. Read the bills part and coins part aloud for each answer.

Say: Lay bills in one row and coins in another row. Add the bills, then add the coins from biggest to smallest. Join them and write the total with $ or ¢, then hold up your board.

Worked example: Problem 1: Bills $5 + $1 = $6. Coins 10 + 10 + 1 = 21¢. Together $6.21. Problem 2: Bills = $1. Coins 25 + 5 + 1 + 1 = 32¢, counted largest to smallest [3]. Together $1.32. Problem 3: Bills = $5. Coins 25 + 25 + 10 = 60¢. Together $5.60.

Ask: Show me Problem 2 coins in counting order. What do you say? (25, 30, 31, 32, using largest to smallest and skip counting [3].) · Why does Problem 3 use $ and not ¢? (It has 5 dollars plus coins, so dollar-and-cent notation like $5.60 [3].)

Check understanding: Check boards for $6.21, $1.32, $5.60 with correct symbols. If wrong, have team rebuild rows and recount aloud.

Support: Let students first lay bills in one row and coins in another row, then add each row [1]. **Stretch:** Play another round where the team writes a one-sentence word problem to match a new money set.

Use: Worksheet Task C

50–60 min **Plenary** 10 min · Whole class

Check correct use of $ and ¢ and fix common counting errors.

YOU DO

1. Show Slide 12 True or false? Read: 115 cents is the same as $1.15.
2. Read next lines: A dime is 10¢. A nickel is 5¢. A dime is worth 5¢. $1 + $1 + 5¢ = $2.05.
3. Vote true or false with $ and ¢ cards, then fix the false one together.
4. Return to success lines and have students say which I can they met.

STUDENTS DO

1. Vote true or false and explain using 100¢ = $1.
2. Correct the dime statement to 10¢ on whiteboards.
3. Say one I can sentence they can now do.

Say: Prove it with counting, not guessing. If coins pass 100, we trade up to dollars. Show me where $ goes and where ¢ goes.

Worked example: 115 cents = $1.15 is true because 100 cents is $1 plus 15¢ left [1]. A dime is worth 5¢ is false because a dime is 10 cents [6]. $1 + $1 + 5¢ = $2.05 is true by adding bills then joining coins [1].

Ask: Is 57 cents written as 57¢ or $57? (57¢, because it is less than 100 cents = $1 [1].) · What mistake makes a total too small? (Forgetting to add the value of all coins and bills [6].)

Check understanding: Exit thumbs for three quick cards: 65¢, $1.47, $2.05. Reteach symbol placement with number line to $1 if needed.

Support: Show a number line from 85 cents to $1.15 to show when the total passes 100 cents = 1 dollar [1].
Stretch: Explain to a partner why 99¢ stays with ¢ and $1.01 needs $.

Use: Slide 12

Common mistakes

Mistake	How to spot it	How to fix it
Forgetting a coin so total is too low	Running total jumps short, like 25, 50, 60 and stops	Rebuild largest to smallest [3] and recount all coins and bills [6]
Mixing dime and nickel values	Counts dime as 5 or nickel as 10	Point to chart and repeat dime is 10 cents [6] and nickel is 5 cents [1]
Writing $ for cents-only amounts or ¢ for dollar amounts	Writes $57 for 57 cents or 147¢ for $1.47	Recall each dollar is worth 100 cents [1] so 100¢ or more trades to $

Support

- Lay bills in one row and coins in another row, then add each row [1]
- Use picture coin chart with cent values for quick reference [5]

Stretch

- Write a one-sentence word problem to match a new money set
- Explain why 99¢ uses ¢ and $1.01 needs $ using 100 cents = $1 [1]

For the LSE or teaching assistant

Stay with relay teams needing support. Prompt lay-and-separate rows, point to value chart, and have students say running total aloud.

Created with LessonDino.com · AI lesson planner with checkable sources

Check for understanding

Question	Answer
A student has 1 quarter, 1 dime, and 1 penny. How much? Write with correct symbol.	36¢
A student pays with one $5 bill, one $1 bill, and 1 nickel. How much?	$6.05
True or false: 100 cents makes $1. Write 100¢ = ?	True, 100¢ = $1.00

Homework

Ask at home to count 3 coins and 1 bill and write the total with $ or ¢.

Sources

1. Money Math: Counting Money - Ducksters · ducksters.com · https://www.ducksters.com/money/counting_money.php
2. Money - 1st level Maths and Numeracy - BBC Bitesize · bbc.co.uk · https://www.bbc.co.uk/bitesize/topics/zx982hv
3. Counting Money — Worksheets, Lessons & Coin Activities · moneyinstructor.com · https://moneyinstructor.com/teaching/counting-money/
4. Money for Kids (KS1 & KS2) – Counting, calculating, comparing · superbrainybeans.com · https://superbrainybeans.com/maths/money/
5. How to teach money and counting coins - Sum Math Fun · summathfun.com · https://www.summathfun.com/teaching-money-counting-coins/
6. summary pdf · learnestedu.com · https://learnestedu.com/topic/kids-learning-counting-counting-money-what-is-counting-money/summary-pdf
7. Money - BBC Bitesize · bbc.co.uk · https://www.bbc.co.uk/bitesize/articles/z4tff82
8. A Simple Guide for Teaching Children to Count Money · primarydelightteaching.com · https://primarydelightteaching.com/how-to-teach-counting-money-1st-2nd-grade/
9. How to Teach Kids to Count Money - Kids' Money · kidsmoney.org · https://www.kidsmoney.org/parents/money-math/counting-money/

Created with LessonDino.com · AI lesson planner with checkable sources