

Money and Finance

Unit 15 Overview: 8 lessons

Students count bills and coins to \$20 and make an amount with the fewest pieces, decide whether there is enough money, and make change from up to \$20 by counting on or subtracting. Then come the financial literacy lessons: fixed and variable expenses, profit, the pros and cons of three ways to save, a weekly allowance plan for spending, saving, college and sharing, and what banks do. Every lesson in this unit is taught in 4th grade in some states only, so teach the ones your state lists; the unit can be spread through the year. The banks and businesses in the lessons are made up, and the lessons teach how money works, not what to choose.

THE UNIT, DAY BY DAY

Day 1	Pre-Check	What students already know, before the first lesson.
Day 2	15.1 Count coins and bills; the fewest coins	I can count bills and coins and use the fewest.
Day 3	15.2 Do I have enough?	I can tell if there is enough money.
Day 4	15.3 Make change from up to \$20	I can make change by counting on or subtracting.
Day 5	15.4 Fixed and variable expenses	I can sort expenses into fixed and variable.
Day 6	15.5 Profit	I can find profit: income minus expenses.
Day 7	15.6 Ways to save: pros and cons	I can compare the pros and cons of ways to save.
Day 8	15.7 A weekly allowance plan	I can split an allowance into four parts.
Day 9	15.8 What banks do	I can tell how banks keep money safe and lend it.
Day 10	Unit Review	The review, to go over together.
Day 11	Unit Test	Form A; Form B (other numbers) is for a retest.

GET READY FOR THE UNIT

- Play \$1, \$5, \$10 and \$20 bills and coins for each pair
- Price tags up to \$20 for a class store
- Expense cards, statement cards and story cards for the financial literacy lessons
- Four envelopes labeled Spend, Save, College and Share

HOW EACH LESSON GOES

- 1. Warm up** (5 min)
- 2. Teach** (10 min)
- 3. Try it together** (10 min)
- 4. Practice** (15 min)
- 5. Exit ticket** (5 min): a quick check on the lesson.

Each lesson page ends with the Animal Math sheets, makers, tools and quizzes for it. “Sheet 3” is the third worksheet of a pack; a color pack prints each sheet again in black and white.

CHECKING AS YOU GO

PRINTABLE	Pre-Check: Day 1, with a key	EXIT TICKET	Exit Tickets: one a lesson, four to a page
PRINTABLE	Unit Review: the day before the test	PRINTABLE	Unit Test: Forms A and B, with keys



Money and Finance

Lesson 15.1: Count coins and bills; the fewest coins

GOAL Students count bills and coins to \$20, biggest first, and write the total with a dollar sign and a point. Then they make an amount with the fewest bills and coins by taking the biggest piece that fits, again and again.

About 45 minutes

I can count bills and coins and use the fewest.

THE LESSON

- 1 Warm up** (5 min) Count together by 5s, by 10s and by 25s. Ask how many quarters make \$1, and how many dimes.
- 2 Teach** (10 min) Lay out a \$10 bill, a \$5 bill, two \$1 bills, 3 quarters, a dime and 2 pennies, mixed up. Sort them biggest first and count on: 10, 15, 16, 17 dollars, then 17.25, 17.50, 17.75, 17.85, 17.86, 17.87. Write \$17.87. Then make \$16.45 with the fewest pieces: a \$10, a \$5, a \$1, a quarter and 2 dimes, 6 pieces in all.
Say: "I count the biggest pieces first and count on. For the fewest, I take the biggest piece that fits, again and again."
- 3 Try it together** (10 min) In the Money tool (Coins and Bills, Make an Amount), one partner types an amount like \$9.80 and the other makes it with the fewest pieces: a \$5, four \$1 bills, 3 quarters and a nickel.
- 4 Practice** (15 min) Students count bills and coins biggest first on sheet 2 of Counting Money to \$100 and count on piece by piece on sheet 3, then show amounts with the fewest coins on sheet 5 of Same Amount, Different Coins.
- 5 Exit ticket** (5 min) Students do **Exit Ticket 15.1** and circle a face beside the "I can" line. On question 1, look for \$15.51; \$15.56 means the nickel was counted as a dime. On question 2, look for 0, 1, 3, 2, 1, 1, 0: a \$5, three \$1 bills, 2 quarters, a dime and a nickel; 8 ones means the \$5 was skipped.

Need help? Write the total under each piece as you count on, as on sheet 3 of Counting Money to \$100.

Ready for more? Find two ways to make \$13.50, and the way with the fewest pieces.

GET READY

- Play bills and coins for each pair
- Amount cards from \$5 to \$20
- Whiteboards and markers

WORDS TO USE

dollars and cents: bills and coins counted together, like \$17.87

count on: start from the bills and add each coin

fewest: the smallest number of bills and coins that make the amount

ASK

- Which piece do you count first? Why?
- How do you know you used the fewest pieces?
- How do you write 12 dollars and 5 cents?

WATCH FOR

Writes cents with one digit, like \$12.5 for 12 dollars and 5 cents. Cents always take two places: 5 cents is .05.

Counts the coins before the bills and loses track. Sort biggest first, then count on.

Uses many \$1 bills or pennies. Ask: is there a bigger piece that still fits?

ON ANIMAL MATH

PRINTABLE

Counting Money to \$100: sheets 2-3

PRINTABLE

Same Amount, Different Coins: sheet 5, the fewest coins

MAKER

Counting Money: Coin Types Coins & Bills (\$1-\$20), Max Total Value \$20.00, Answer Format Dollar (\$0.35)

TOOL

Money: Coins and Bills, Make an Amount

EXIT TICKET

4th Grade Money and Financial Literacy Exit Tickets: Exit Ticket 15.1

Money and Finance

Lesson 15.2: Do I have enough?

GOAL Students count the money they have and compare it with a price to decide if it is enough, find the difference, and find how much more is needed when it is not enough, for one thing or two.

About 45 minutes

I can tell if there is enough money.

THE LESSON

- 1 Warm up** (5 min) Show \$8.30 and \$8.03. Ask which is more and how they know.
- 2 Teach** (10 min) A game costs \$13.60. The wallet holds a \$10 bill, two \$1 bills, 2 quarters and 3 dimes: \$12.80. Line up the points and compare: \$12.80 is less than \$13.60, so it is not enough. Count up from \$12.80: 20¢ makes \$13.00 and 60¢ more makes \$13.60, so 80¢ more is needed. Then two things: a \$6.45 puzzle and a \$2.65 marker cost \$9.10 together, so \$10 is enough, with 90¢ left.
Say: "I count my money and compare it with the price. If it is less, I count up to the price to find how much more I need."
- 3 Try it together** (10 min) Partners take a wallet to the class store and decide for each price tag: yes or no, and the difference. Then they choose two things to buy together and check that the wallet holds enough.
- 4 Practice** (15 min) Students count the money and circle yes or no on sheet 2 of Do I Have Enough Money?, find how much more on sheet 3, shop on sheet 4 and solve the stories on sheet 5.
- 5 Exit ticket** (5 min) Students do **Exit Ticket 15.2** and circle a face beside the "I can" line. On question 1, look for \$11.40, no, and \$0.35; yes means only the dollars were compared. On question 2, look for \$1.45; \$2.55 means 25 was taken from 80 in the cents.

Need help? Write the money under the price with the points lined up before comparing.

Ready for more? Choose three things from the class store that cost \$20 or less together, as close to \$20 as you can.

GET READY

- Play bills and coins in a wallet for each pair
- Price tags up to \$20 for the class store
- Whiteboards and markers

WORDS TO USE

enough: as much money as the price, or more

difference: how far apart two amounts are

how much more: the price take away the money you have

ASK

- Is it enough? How do you know?
- How much more do you need? How did you find it?
- Can you buy both? How much is left?

WATCH FOR

Compares only the dollars. When the dollars are the same, or close, compare the cents too.

Takes the smaller cents from the bigger cents. Count up from the money to the price, or trade a dollar for 100 cents.

Adds the price and the money. Ask: how far is it from what I have to what I need?

ON ANIMAL MATH

PRINTABLE

Do I Have Enough Money? sheets 2-5

TOOL

Money: Coins and Bills

QUIZ

Decimals Quiz: the Money level

EXIT TICKET

4th Grade Money and Financial Literacy Exit Tickets: Exit Ticket 15.2

Money and Finance

Lesson 15.3: Make change from up to \$20

GOAL Students make change from up to \$20 by counting on from the price, coins first up to the next dollar, then bills up to the money paid, and check the change by subtracting.

I can make change by counting on or subtracting.

About 45 minutes

THE LESSON

- 1 Warm up** (5 min) Count on together from \$3.80 to \$4.00 by 5s, then from \$4.00 to \$10.00 by dollars.
- 2 Teach** (10 min) A book costs \$8.15 and Ana pays with a \$20 bill. Start at the price and count on: a dime makes \$8.25, 3 quarters \$9.00, a \$1 bill \$10.00, and a \$10 bill \$20.00. The change is \$11.85. Show the jumps on the number line, then check by subtracting: $\$20.00 - \$8.15 = \$11.85$.
Say: "Start at the price. Coins first, up to the next dollar, then bills up to what was paid. What I added is the change."
- 3 Try it together** (10 min) Partners take turns at the class store: one pays with a \$10 or a \$20 bill, and the other counts the change aloud. Try a \$4.80 cap paid with \$10 (\$5.20) and a \$13.15 game paid with \$20 (\$6.85).
- 4 Practice** (15 min) Students count on and find change on sheets 1-3 and 5 of Making Change (amounts to \$5), then find the change on the receipts on sheet 3 of Adding and Subtracting Decimals. Early finishers run the snack stand on sheet 4 of Making Change.
- 5 Exit ticket** (5 min) Students do **Exit Ticket 15.3** and circle a face beside the "I can" line. On question 1, look for \$8.75, \$9 and \$10, then \$1.30; \$1.40 means the nickel was counted as a dime. On question 2, look for \$5.45; \$6.45 means no dollar was traded, and \$5.55 means the cents slipped.

Need help? Count on along an open number line: one jump to the next dollar, then jumps of \$1, \$5 or \$10.

Ready for more? Find the change from \$20 for a \$7.99 lunch in two ways, and say which way is easier.

GET READY

- Play bills and coins for each pair
- Price tags up to \$20
- An open number line on the board

WORDS TO USE

change: the money you get back when you pay more than the price

count on: start at the price and add up to the money paid

check: subtract the price from the money paid

ASK

- Where do you start counting?
- Why do the coins come first?
- How can you check the change?

WATCH FOR

Starts counting at 0. Say the price first, then count on each coin and bill.

Gives the money paid as the change. The change is only what was added to the price.

Forgets to trade a dollar when subtracting. Count on instead, or trade \$1 for 100 cents first.

ON ANIMAL MATH

PRINTABLE

Making Change: sheets 1-5

PRINTABLE

Adding and Subtracting Decimals: sheet 3

TOOL

Money: Coins and Bills, Line Up and Count

QUIZ

Decimals Quiz: the Money level

EXIT TICKET

4th Grade Money and Financial Literacy Exit Tickets: Exit Ticket 15.3

Money and Finance

Lesson 15.4: Fixed and variable expenses

GOAL Students tell fixed expenses (the same amount every month) from variable expenses (an amount that changes) by comparing two months of bills, and add up the expenses of each kind.

About 45 minutes

I can sort expenses into fixed and variable.

THE LESSON

- 1 Warm up** (5 min) Ask: what does a family pay for every month? List ideas on the board: a phone, food, a home, water.
- 2 Teach** (10 min) Show two months of a family's bills: a phone plan \$40 in March and \$40 in April, water \$31 and \$44, a car loan \$215 and \$215, food \$380 and \$345. Compare each row: the same both months is fixed, different is variable. The phone plan and the car loan are fixed; water and food are variable. Then add the fixed expenses for April: $\$40 + \$215 = \$255$.
Say: "A fixed expense stays the same every month. A variable expense changes with how much is used or bought."
- 3 Try it together** (10 min) Partners sort expense cards for a family and for a bike shop into fixed and variable: the shop's rent every month, the parts it buys (more in busy months), its electric bill. They explain each choice with "every month" or "it changes".
- 4 Practice** (15 min) Students sort a family's bills and a bakery's expenses on sheet 1 of Expenses, Profit and Saving, then sort a small business's start-up and supply costs on sheet 1 of Running a Business.
- 5 Exit ticket** (5 min) Students do **Exit Ticket 15.4** and circle a face beside the "I can" line. On question 1, look for F, V and F: the bus pass and the music app cost the same both months. On question 2, look for the gym; gifts change. Marking pet food fixed because a pet always needs food means the amounts were not compared.

Need help? Highlight each row where the two months match before writing F or V.

Ready for more? Plan a month for a made-up family with three fixed and three variable expenses, and total each kind.

GET READY

- A family's bills for two months on chart paper
- Expense cards to sort
- Whiteboards and markers

WORDS TO USE

expense: money paid out for something you need or use

fixed expense: costs the same every month

variable expense: changes from month to month

ASK

- Is the amount the same both months?
- Why might this expense change?
- Which expenses can a family plan for exactly?

WATCH FOR

Calls an expense fixed because it is needed.

Needed or not, compare the amounts: the same every month is fixed.

Calls a bill variable because it is big. Size does not matter: does it change?

Adds every bill when asked for the fixed ones.

Circle the fixed rows first, then add only those.

ON ANIMAL MATH

PRINTABLE

Expenses, Profit and Saving: sheet 1

PRINTABLE

Running a Business: sheet 1

EXIT TICKET

4th Grade Money and Financial Literacy Exit Tickets: Exit Ticket 15.4

Money and Finance

Lesson 15.5: Profit

GOAL Students find a business's income (the money it takes in), its expenses (the money it pays out) and its profit: income minus expenses. When expenses are more than income, the difference is a loss.

About 45 minutes

I can find profit: income minus expenses.

THE LESSON

- 1 Warm up** (5 min) Ask: if you sell 10 cookies for \$2 each, how much money comes in? What did the cookies cost to make?
- 2 Teach** (10 min) The 4th grade sells 36 bookmarks for \$3 each: the income is $36 \times \$3 = \$108$. Ribbon and paper cost \$27.80: the expenses. The profit is $\$108.00 - \$27.80 = \$80.20$. Then a loss: Jay spends \$20 on seeds and pots and sells 8 plants for \$2 each, an income of \$16. The expenses are more than the income, so it is a loss of $\$20 - \$16 = \$4$.
Say: "Profit is income minus expenses. If the expenses are bigger, it is a loss, and I say how much."
- 3 Try it together** (10 min) Partners plan a class sale: what to sell, a price and the costs. They find the income if they sell 25, then the profit, and how many they would need to sell just to cover the costs.
- 4 Practice** (15 min) Students find a lemonade stand's income and profit and solve the stories on sheet 2 of Expenses, Profit and Saving, then read a four week income statement on sheet 4 of Running a Business.
- 5 Exit ticket** (5 min) Students do **Exit Ticket 15.5** and circle a face beside the "I can" line. On question 1, look for \$90.00, \$27.40 and \$62.60; \$117.40 means the clay was added. On question 2, look for loss and \$3.00; profit means the two amounts were not compared first.

Ready for more? Change the bookmark price so the profit is more than \$150. Which prices work?

GET READY

- A class sale plan on chart paper: what to sell, the price, the costs
- Story cards
- Whiteboards and markers

WORDS TO USE

income: money a business takes in from sales

profit: income minus expenses: the money the business keeps

loss: when expenses are more than income

ASK

- What comes in? What goes out?
- Is it a profit or a loss? How do you know?
- How could the business make more profit?

WATCH FOR

Adds the expenses to the income. Expenses are money going out: subtract them.

Gives the income as the profit. Ask: what did it cost? Take that away.

Calls every difference a profit. Check which is bigger first: bigger expenses mean a loss.

Need help? Draw two columns, money in and money out, and total each before subtracting.

ON ANIMAL MATH

PRINTABLE

Expenses, Profit and Saving: sheet 2

PRINTABLE

Running a Business: sheet 4

EXIT TICKET

4th Grade Money and Financial Literacy Exit Tickets: Exit Ticket 15.5

Money and Finance

Lesson 15.6: Ways to save: pros and cons

GOAL Students compare three ways to save (a piggy bank, a savings account and a CD) by their advantages and disadvantages, find a year's interest, and decide which way fits a saver's goal.

About 45 minutes

I can compare the pros and cons of ways to save.

THE LESSON

- 1 **Warm up** (5 min) Ask: where could you keep money you are saving? List ideas, then ask what could go wrong with each.
- 2 **Teach** (10 min) Fill the chart. A piggy bank is easy to add to and count, but it earns nothing and it is easy to spend from. A savings account is at a bank, pays a little interest, and the money can still be taken out. A CD pays the most interest, but the money must stay for a set time. Interest on \$1,100 for a year: a piggy bank earns \$0, a savings account at \$2 for every \$100 earns \$22, and a CD at \$5 for every \$100 earns \$55.
Say: "Every way to save has advantages and disadvantages. Which one fits depends on when the saver needs the money."
- 3 **Try it together** (10 min) Partners sort statement cards under the three ways and mark each A or D. Then they read saver cards and choose the way that fits: a gift next week, a bike next summer, college in 8 years.
- 4 **Practice** (15 min) Students circle advantage or disadvantage, find a year's interest and choose the way that fits on sheet 3 of Expenses, Profit and Saving. Early finishers compare a saver with a plan and one without on sheet 5 of Saving Money Over Time.
- 5 **Exit ticket** (5 min) Students do **Exit Ticket 15.6** and circle a face beside the "I can" line. On question 1, look for D for the piggy bank and A for the savings account. On question 2, look for the CD: Raj needs his money in 2 weeks, and a CD holds it for a set time.

Need help? Act out each saver's story: when do they need the money, and can they get it then?

Ready for more? Write a saver story that fits a piggy bank best, and one that fits a CD best.

GET READY

- A chart of the three ways to save, with columns for advantages and disadvantages
- Statement cards to sort
- Saver cards with goals

WORDS TO USE

advantage: a good thing about a choice

disadvantage: a bad thing about a choice

CD: money left at a bank for a set time, for more interest

ASK

- When will the saver need the money?
- Is this an advantage or a disadvantage? For whom?
- Why might a CD pay more interest?

WATCH FOR

Thinks taking money out is always a disadvantage. It is an advantage when the money is needed soon.

Chooses the CD for every saver because it pays the most. Ask when the money is needed: a CD holds it for a set time.

Multiplies the rate by the dollars, not the hundreds. \$1,100 is 11 hundreds: $11 \times \$2$.

ON ANIMAL MATH

PRINTABLE

Expenses, Profit and Saving: sheet 3

PRINTABLE

Saving Money Over Time: sheet 5, a review

EXIT TICKET

4th Grade Money and Financial Literacy Exit Tickets: Exit Ticket 15.6

Money and Finance

Lesson 15.7: A weekly allowance plan

GOAL Students plan a weekly allowance in four parts (spend, save, college and share) that add up to the whole allowance, find a missing part, and find a part that is a fraction of the allowance.

About 45 minutes

I can split an allowance into four parts.

THE LESSON

- 1 Warm up** (5 min) Ask: if you got \$10 every week, what could you do with it? Sort the ideas into spend, save, college and share.
- 2 Teach** (10 min) Tess's allowance is \$20 a week. Her plan: spend \$9, save \$5, college \$4 and share \$2. Check that the parts add up to the whole: $9 + 5 + 4 + 2 = 20$. If a part is missing, take the others away from the allowance. Then a fraction: Jo gets \$16 a week and puts $\frac{1}{4}$ of it in college savings: $\$16 \div 4 = \$4$, so after 10 weeks that is \$40 for college.
Say: "The four parts of a plan add up to the whole allowance. To find a fraction of it, I divide it into equal parts."
- 3 Try it together** (10 min) Partners make a plan for \$25 a week with all four parts, put play money in the envelopes, and trade plans to check that the parts add up to \$25. Then they find their college savings after 12 weeks.
- 4 Practice** (15 min) Students find missing parts, work out fraction plans and make a plan of their own on sheet 4 of Expenses, Profit and Saving.
- 5 Exit ticket** (5 min) Students do **Exit Ticket 15.7** and circle a face beside the "I can" line. On question 1, look for \$3: $\$17 - \$8 - \$4 - \$2$; \$31 means the parts were added to the allowance. On question 2, look for \$6, one fourth of \$24; \$20 means 4 was taken away.

Need help? Put play money in the four envelopes and count what is left for the missing part.

Ready for more? Make a plan for \$30 a week where college is $\frac{1}{5}$ of the allowance and share is $\frac{1}{10}$.

GET READY

- Four envelopes labeled Spend, Save, College and Share
- Play bills and coins for each pair
- Plan cards with one part missing

WORDS TO USE

allowance: money a child gets each week

college savings: money saved for school after high school

share: money given to help others

ASK

- Do the parts add up to the whole allowance?
- How do you find one fourth of the allowance?
- Why might a family plan to save for college every week?

WATCH FOR

Adds the missing part to the allowance. The parts make the whole: take the known parts away.

Takes 4 away to find one fourth. One fourth means 4 equal parts: divide.

Makes a plan whose parts do not add up. Add the four parts before writing the plan down.

ON ANIMAL MATH

PRINTABLE

Expenses, Profit and Saving: sheet 4

EXIT TICKET

4th Grade Money and Financial Literacy Exit Tickets: Exit Ticket 15.7

Money and Finance

Lesson 15.8: What banks do

GOAL Students describe what banks do: keep savers' money safe, pay savers interest, and lend money to borrowers, who pay it back with interest. They find a year's interest as the dollars for every \$100 times the hundreds.

About 45 minutes

I can tell how banks keep money safe and lend it.

THE LESSON

- 1 Warm up** (5 min) Ask: why might a family keep money at a bank and not at home? Why might a family borrow money?
- 2 Teach** (10 min) Draw the picture: savers put money in the bank, and the bank keeps it safe and pays them interest. The bank lends some of that money to borrowers, who pay it back with interest. At a made-up bank, savers earn \$5 a year for every \$100, and borrowers pay \$9 for every \$100. Lia saves \$300: $3 \times \$5 = \$15$. A bakery borrows \$3,000, 30 hundreds: $30 \times \$9 = \$270$ for the year.
Say: "A bank keeps money safe, lends it out and pays interest to savers. Borrowers pay more interest than savers get; that is how a bank makes money."
- 3 Try it together** (10 min) Partners read story cards and decide what the bank is doing: a school borrows \$40,000 for a bus; Tia's baseball cards sit in the bank's vault; the bank adds \$7 to Sam's account at the end of the year. Then they find a year's interest for a saver with \$600 and a borrower with \$1,000.
- 4 Practice** (15 min) Students decide what the bank is doing and find the interest savers earn and borrowers pay on sheet 5 of Expenses, Profit and Saving, then match uses to checking or savings on sheet 1 of Checking and Savings Accounts. Early finishers read the bank statement on sheet 2.
- 5 Exit ticket** (5 min) Students do **Exit Ticket 15.8** and circle a face beside the "I can" line. On question 1, look for lends money for the truck and keeps it safe for the locked up stamps. On question 2, look for \$28: 7 hundreds times \$4; \$728 adds in the savings, \$704 adds \$4 to the savings, and \$11 adds 4 and 7.

Ready for more? Why does a bank charge borrowers more interest than it pays savers? Explain with numbers.

GET READY

- A picture of money moving between savers, a bank and borrowers
- Story cards about a made-up bank
- Whiteboards and markers

WORDS TO USE

deposit: money put into a bank account

borrow and lend: get money to pay back later; give money to be paid back

interest: money paid for using money

ASK

- Who gets the money? Who pays it back?
- Why does the bank pay savers interest?
- How many hundreds are in the amount?

WATCH FOR

Mixes up the saver and the borrower. Follow the money in the picture: savers put it in, borrowers take it out and pay it back.

Multiplies by the whole amount, not the hundreds. \$800 is 8 hundreds: $8 \times \$5$.

Thinks the bank keeps every dollar in a box. The bank lends some of it out and keeps a record of each saver's money.

Need help? Act out the picture with play money: a saver, a banker and a borrower.

ON ANIMAL MATH

PRINTABLE

Expenses, Profit and Saving: sheet 5

PRINTABLE

Checking and Savings Accounts: sheets 1-2

EXIT TICKET

4th Grade Money and Financial Literacy Exit Tickets: Exit Ticket 15.8