Break Apart to Subtract Within 100

Teacher		**Class**	Grade 2
Subject	Math	**Topic**	Subtraction within 100
Date		**Room**	
Lesson length	60 minutes	**Country**	United States

Students learn to subtract two-digit numbers using tens and ones with regrouping. They build with blocks, check with addition, and solve a word problem.

Curriculum links

- Use addition and subtraction within 100 to solve one- and two-step word problems with unknowns in all positions [2]
- Explain why addition and subtraction strategies work, using place value and the properties of operations [2]

Learning objectives

- Students will subtract two-digit numbers within 100 using tens and ones.
- Students will regroup 1 ten as 10 ones when there are not enough ones.
- Students will check subtraction answers using addition.

Success criteria

- I can break numbers into tens and ones to subtract.
- I can regroup a ten when I need more ones.
- I can check my subtraction by adding back.

What students already know

Show 43 with base-ten blocks. Ask: How many bundles of ten? How many singles? What is 43 minus 10?

Key words

difference	the amount left after taking away [5]
regroup	to trade 1 ten bundle for 10 single cubes [2]
place value	where a digit sits tells what it is worth [2]
check	to add back to prove an answer is right [2]

Materials

- base-ten blocks
- place-value mats
- dry-erase boards and markers
- printed place-value chart
- Slides 1-11
- Worksheet Tasks A, B, C

Before the lesson

- Print Worksheet Tasks A, B, C for each pair and a place-value chart for support.
- Test Video clip 1 (0:00-4:30) and set Slides 1-11 to project.
- Set out base-ten blocks, place-value mats, and dry-erase boards for each pair.

Lesson outline

0–5 min **Starter** 5 min · Whole class

Activate tens and ones knowledge and hook students with a missing-blocks mystery.

YOU DO

1. Show Slide 1 and build 56 with 5 tens sticks and 6 ones cubes on the mat.
2. Say the hook and cover 2 tens and 4 ones with a cloth to show they vanished.
3. Ask partners to whisper what is left and how they knew.
4. Show Slide 2 and point to today's goals for subtracting within 100.

STUDENTS DO

1. Look at 56 built from tens and ones.
2. Whisper with a partner how many tens and ones are left.
3. Share one idea with the class.

Say: I built 56 with blocks and some just vanished — can you figure out what is left? Look at my tens sticks and ones cubes. Whisper to your partner how many are still there.

Ask: What is 56 made of? (5 tens and 6 ones.) · If 2 tens vanish, how many tens are left? (3 tens, which is 30.)

Check understanding: Hold-up fingers for tens left: 3. If many miss, recount tens sticks aloud together.

Support: Point to each tens stick while counting 10, 20, 30, 40, 50. **Stretch:** Ask what would be left if 24 vanished from 56.

Use: Slides 1-2

5–17 min **Teaching** 12 min · Whole class

Model subtracting by tens and ones and when to regroup.

YOU DO

1. Play Video clip 1 (0:00-4:30) and tell students to listen for tens and ones words.
2. Show Slides 3-4 and model 56 - 24 by taking tens and tens, ones and ones [2].
3. Model 52 - 28: show not enough ones, regroup 1 ten as 10 ones [2].
4. Record both equations and differences, which is the result of subtraction [5].

STUDENTS DO

1. Watch the video and raise a finger each time they hear tens or ones.
2. Copy the tens-and-ones steps on dry-erase boards with the teacher.
3. Say the new ones number after regrouping aloud.

Say: Good subtractors take away tens first, then ones. If there are not enough ones on top, we regroup 1 ten as 10 ones. Then we take away and find the difference.

Worked example: 52 - 28: 52 is 5 tens and 2 ones. 2 ones cannot take 8 ones, so regroup 1 ten as 10 ones [2]. Now we have 4 tens and 12 ones. Take 2 tens: 4 tens - 2 tens = 2 tens. Take 8 ones: 12 ones - 8 ones = 4 ones. The difference is 24 [5]. Check: 24 + 28 = 52.

Ask: Why did 52 - 28 need regrouping but 56 - 24 did not? (56 had enough ones to take 4 ones, but 52 did not have enough ones to take 8 ones.) · After regrouping 52, how many tens and ones do we have? (4 tens and 12 ones.) · How can addition prove 52 - 28 = 24? (24 + 28 = 52, so the parts make the whole again.)

Check understanding: All show boards for 4 tens and 12 ones. Reteach the trade with blocks if boards show 5 tens and 12 ones.

Support: Keep a printed place-value chart on the board with 52 crossed to 4 tens and 12 ones. **Stretch:** Ask students to predict the difference before taking away: will it be more or less than 30?

Use: Video clip 1 (0:00–4:30), Slides 3-6

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17–40 min **Main activity** 23 min · Pairs

Build fluency subtracting two-digit numbers with blocks and regrouping.

YOU DO

1. Show Slide 8 and assign first 56 - 24 with no regrouping, then 52 - 28 with regrouping [3].
2. Hand out blocks, mats, and boards and start Worksheet Tasks A and B.
3. Circulate, ask pairs to show the trade by boxing the regrouped ten.
4. Choose one pair to show 64 - 28 with blocks under the camera.

STUDENTS DO

1. Build each starting number on the place-value mat.
2. Take away tens and ones, regrouping when ones are too small.
3. Write the starting number, what was taken away, and the difference [5] and complete Tasks A and B.

Say: Build the starting number with tens sticks and ones cubes. Take away tens and tens, ones and ones. If you need more ones, regroup 1 ten as 10 ones, then write the difference.

Worked example: 64 - 28: Build 6 tens and 4 ones. Regroup 1 ten as 10 ones to make 5 tens and 14 ones [2]. Take away 2 tens to leave 3 tens. Take away 8 ones from 14 ones to leave 6 ones. The difference is 36 [5].

Ask: Where did you have to regroup? (When the top ones were smaller than the ones to take away.) · How did your tens change after regrouping? (One less ten, and 10 more ones.)

Check understanding: Scan boards for correct differences for 56 - 24 = 32 and 52 - 28 = 24. Pull a small group to rebuild with extra blocks if regrouping is missing.

Support: Provide a printed place-value chart and extra base-ten blocks to touch and count [3]. **Stretch:** Students try 73 - 29 and 81 - 36 and explain where they had to regroup.

Use: Slide 8, Worksheet Tasks A-B

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40–52 min **Partner check** 12 min · Pairs

Use addition to check subtraction and solve a take-away word problem.

YOU DO

1. Model Student A solves 58 - 34 and Student B adds the difference back to check.
2. Hand out Worksheet Task C and have pairs show both facts side by side.
3. Show Slide 9 Take Away card and read the pencils problem together.
4. Have pairs act it out with blocks and write the receipt equation.

STUDENTS DO

1. Take roles: Student A subtracts, Student B checks by adding.
2. Complete Worksheet Task C with no-regrouping facts first, then regrouping.
3. Solve the pencils problem with blocks and write the check.

Say: If you subtract and you are not sure, addition can prove you right. Solve first, then add the difference back to the number you took away. You should land back on the number you started with.

Worked example: 58 - 34 = 24. Check: 24 + 34 = 58. Both facts side by side prove the answer. Word problem: A student had 45 pencils and gave 18 away. How many pencils are left? 45 - 18 = 27. Check: 27 + 18 = 45.

Ask: How does 24 + 34 prove 58 - 34 = 24? (It puts the difference back with the part taken away to make 58 again.) · For 45 - 18, did you need to regroup? (Yes, 5 ones cannot take 8 ones, so regroup 1 ten as 10 ones.)

Check understanding: Pairs hold up boards showing both 45 - 18 = 27 and 27 + 18 = 45. Model again with blocks for any pair showing a different difference.

Support: Start with no-regrouping facts like 46 - 23 with blocks to check [3]. **Stretch:** The shopkeeper raises the price by $12 and students find the new change amount.

Use: Slide 9, Worksheet Task C

52–60 min **Plenary** 8 min · Whole class

Explain why place-value strategies work and review success criteria.

YOU DO

1. Show Slide 10 and ask: Is 73 - 28 the same as 73 - 20 - 8? How do you know?
2. Have pairs share one sentence starting with It works because and vote on clearest explanation.
3. Link back to breaking apart by tens and ones and taking from a tens number first [2].
4. Show Slide 11 and have students complete the exit ticket on paper.

STUDENTS DO

1. Think, pair, and share why take-tens-first works.
2. Vote on the clearest It works because explanation.
3. Write the exit ticket with one subtraction, strategy, and question.

Say: Two classmates both solved 42 - 18 but did it different ways — could they both be right? Tell your partner why your strategy works. Use tens and ones words and a drawing to explain.

Worked example: 73 - 28 and 73 - 20 - 8 are the same. 28 = 20 + 8. First 73 - 20 = 53, which is a tens-friendly step [2]. Then 53 - 8 = 45. So 73 - 28 = 45.

Ask: Is 73 - 28 the same as 73 - 20 - 8? (Yes, because 28 is 20 and 8, so taking 20 then 8 takes 28.) · Why explain using place value? (To show why addition and subtraction strategies work [2].)

Check understanding: Read 3 exit tickets aloud and check success criteria with thumbs up. Reteach take-tens-first on number line tomorrow if votes show confusion.

Support: Give sentence frames like First I took the tens, then I took the ones with a tens-and-ones drawing.
Stretch: Students decide if 45 - 17 can be solved by 45 - 15 - 2 and prove it with blocks or a drawing.

Use: Slides 10-11

Common mistakes

Mistake	How to spot it	How to fix it
Taking smaller from larger in ones, like 52 - 28 = 36 by doing 8 - 2.	Answer ones digit is 6 instead of 4 and no regrouping is shown.	Rebuild 52 and show 2 ones cannot take 8 ones, so regroup 1 ten as 10 ones to make 12 ones [2].
Forgetting to reduce tens after regrouping, like leaving 5 tens in 52 - 28.	Work shows 12 ones but tens still 5.	Cross out 5 tens to 4 tens on the place-value chart and box the regrouped ten.
Misaligning tens and ones in vertical form.	Ones are written under tens, giving a difference over 100 or far too small.	Line up tens under tens and ones under ones on the place-value mat before writing [3].

Support

- Provide a printed place-value chart or extra base-ten blocks to touch and count [3].

Stretch

- Students try 73 - 29 and 81 - 36 and explain where they had to regroup.

For the LSE or teaching assistant

Stay with the support pair during main activity to guide the 1-ten-for-10-ones trade and prompt the addition check.

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Check for understanding

Question	Answer
Solve 64 - 28. Show tens and ones.	36, after regrouping to 5 tens and 14 ones.
How do you check 64 - 28 = 36 with addition?	36 + 28 = 64.
Is 73 - 28 the same as 73 - 20 - 8? How do you know?	Yes, 28 = 20 + 8, so taking tens first then ones takes the same total.

Homework

Solve 81 - 36 with a tens-and-ones drawing and an addition check.

Sources

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