

Making change

CURRICULUM ALIGNMENT

MEA.MON.4

solve and pose practical tasks to investigate and make informed judgements about transactions and financial plans.

NUM.OPS.4

build upon, select and make use of a range of operation strategies.

INTERACTIVES Coin Counter · challenge, display

WHAT THIS LESSON TEACHES

When you pay more than a bill, the shopkeeper gives back change. Change equals the cash paid minus the bill.

→ Pay €10 for a €6.55 lunch; change is €3.45.

→ Pay €5 for a €3.27 snack; change is €1.73.

MODEL THIS ON THE BOARD

CHANGE FROM €10 FOR LUNCH

- 1 Start at the bill **€6.55**.
- 2 Count on **45c** to reach the next euro **€7**.
- 3 Count on **€3** to reach the cash paid **€10**.
- 4 Add the hops: change = **€3.45**.

LESSON ARC

Open with the €6.55 lunch paid with €10 — take three hands-up answers and hold the reveal for the coin-counter interactive. Model counting on: 45c to €7, then €3 to €10. Pupils record every hop in the copybook for three more bills, then you build change together on the tray, biggest coin first. Class Challenge is the practice bank at the board; seat practice follows in the Student Activity Book.

TEACHING MOVES

1. **Getting Started.** Take three hands-up answers only — no open call-outs. Sort them aloud into 'counted up from €6.55' versus 'took €6.55 from €10', and flag you'll return to both. Don't confirm €3.45 yet; let the interactive settle it.
2. **Watch and Notice.** On the coin-counter tray, point coin by coin from biggest to smallest and count aloud with the class. On the €3.45 tray, make them count ON from €6.55 (45c to €7, then €3) before you check the tray. On the €1.73 tray, ask 'why can't we do this one with fewer?' and let a pupil own the awkward 3c.
3. **Count On in Your Copy.** Walk the room glancing for the written hops, not just final answers. The pupils to catch are the ones who leap straight to the round number and skip the middle step — nudge them to write the hop to the next whole euro first (€3.27 → €3.30 → €4 → €5).
4. **Try It Together.** For each amount get the class to count ON to the change first, then send one pupil to build it. Before they tap, the rest predict the biggest coin needed. Revoice a strong answer: 'so the 30c gets us to a round euro, then the euros are easy.'
5. **Class Challenge.** Brisk practice — pupils take turns at the board, check each answer with the Check tick, class confirms, move on. Expect a pause on the €1.73 build (the 3c splits into 2c + 1c). On the €17.60 stretch, ask which note goes down first before anyone taps.

6. **What Did We Notice?** Listen for pupils naming the round-euro hop as the shortcut. Revoice: 'so instead of one hard subtraction, we do two easy adds.' Head off the belief that change must always be a subtraction — counting on is the shopkeeper's real method.

COMMON MISCONCEPTIONS

⚠ Pupils count on but stop at the round euro and call that the change — €6.55 → €7 → €10 and they write '€3' because the €3 hop was the big one, dropping the 45c.

On the tray, lay out only the €3 they named next to the actual €3.45 change and count both totals aloud. 'You've 45c short — where did that hop go?' Have them point back to the €6.55 → €7 step they skipped.

⚠ Pupils try to subtract €6.55 from €10 in columns, get tangled in the borrowing across the decimal point, and land on €4.45 or €3.55.

Don't correct the subtraction — redirect. Rebuild it as counting on with the coin-counter: 45c to €7, €3 to €10. Show the two easy adds beat one messy subtraction. This is exactly the split the maths-talk step names.

⚠ On €1.73 pupils grab a fistful of small coins for the 73c and think that's 'fewest'.

Ask the class to name the biggest coin that fits at each step: 50c, then 20c, then... Build it live on the tray and count the items — 50 + 20 + 2 + 1 is four coins, not a handful. Name the awkward 3c as the reason it can't go lower.

DIFFERENTIATION

EMERGING

- Stay on bills that only need a cents-hop to the next whole euro (like €5.70 → €6 → €10) before the ones with an awkward 3c; build alongside these pupils on the tray.
- Pre-write the first hop arrow in the copybook (€3.27 → €3.30) so they only find the remaining steps, not the whole structure.

DEVELOPING

- After the copybook set, hand them a bill where the cash paid isn't a round note — €8.40 paid with €10.50 — and ask if counting on still works.
- Give a missing-hop puzzle: €12.15 → €13 → €20, but blank the first hop's value for them to fill and justify.

PROFICIENT

- During Class Challenge, narrate a harder variant for fast finishers: €100 paid for €76.35 — which note first, and how many items in the fewest build? Have them justify the note choice aloud.
- Pose: 'Give me a bill and cash paid where the fewest-coins change needs a 1c and a 2c' — they invent the awkward case and explain why it can't go lower, then move ahead into the Student Activity Book.

✓ **Cross-curricular:** Tie to SPHE — run a mock class shop where pupils price snacks in euro and cents and give each other change by counting on.

ANSWER KEY

Scaffold: visual check on the page

Q1: €5.65

Q2: €1.60

Q3: €22.35

a) Always : This is the rule for finding any change amount.

b) Never : Change is always the leftover, so it is smaller than the cash paid.

c) Always : That is how we work out change in our heads.

d) Never : €10 minus €6.55 is €3.45, not €4.45.

EXTENSION SHEET · STRETCH ANSWERS

S1: €2.55

S2: €1.40

S3: €75.21

S4: €54.81

S5: €70.82