

Money: totalling a shopping basket

CURRICULUM ALIGNMENT

MEA.MON.3

transfer knowledge of the base ten system in number to monetary contexts and use for purposes of calculation.

NUM.OPS.3

understand and apply flexibly the four operations; and the relationships between operations.

INTERACTIVES

Coin Counter · challenge, display

Word Problem · challenge

WHAT THIS LESSON TEACHES

Money is written with the euro before the point and the cent after it, always two digits of cent, like €1.20. To total a basket, line the euro under the euro and the cent under the cent, then add.

→ Forty-five cent is written €0.45, and one euro twenty cent is €1.20.

→ $35c + 85c = 120c$, which is €1 and 20c, so a euro is carried.

MODEL THIS ON THE BOARD

TOTALLING A BASKET

- 1 Line up the prices with euro under euro and cent under cent: **€0.45**, **€1.20**, **€1.35**.
- 2 Add the cent column: $5 + 0 + 5 = 10$. Write 0 and carry 1.
- 3 Add the ten-cent column: $4 + 2 + 3 + 1 = 10$. Write 0 and carry 1 euro.
- 4 Add the euro column: $0 + 1 + 1 + 1 = 3$. The total is **€3.00**.

$$\begin{array}{r}
 0.45 \\
 1.20 \\
 + 1.35 \\
 \hline
 3.00
 \end{array}$$

LESSON ARC

Open with a three-item basket (apple €0.45, milk €1.20, bread €1.35) and take hands-up estimates: over or under €3? Model adding pairs on the board with euro under euro, cent under cent, lingering on €1.35 + €0.85 where 120c trades a euro up. Pupils add a basket on the coin-counter interactive at the board, then work one in their copy. Student Activity Book practice follows with baskets of increasing size.

TEACHING MOVES

1. **Getting Started.** Give five seconds of quiet think-time, then take three hands-up estimates only — no open call-outs. Revoice one rounding estimate ('about 50c, about €1, about €1.50, so a bit over €3') as the sensible way to judge over-or-under. Hold the estimate; don't add yet.
2. **Watch and Notice.** Add each pair live on the board with cent under cent — don't read answers before the columns add. Linger on €1.35 + €0.85: ask 'how many whole euro are hiding in 120 cent?' before you split it, then send 100c up as €1 and leave 20c below.
3. **Try It Together.** One pupil lays the first price on the coin-counter interactive, another lays the second, then the class counts the whole tray aloud. On €0.95 + €1.05, ask the class to spot that 95c + 5c makes a full euro before counting on.
4. **Add the basket in your copy.** Walk the room glancing for aligned decimal points and a carried euro when the cent pass a hundred ($85c + 40c + 55c = 180c$). This is whole-class copybook practice, not marking — a quick glance per desk.

5. **Class Challenge.** Brisk practice — pupils take turns at the board, the class confirms each answer before moving on. On the four-item basket ($99+75+20+30 = 224c$), have the class predict how many whole euro are hiding in the cent before checking. Don't re-explain the method each time.
6. **What Did We Notice?.** Ask why euro must stay under euro and cent under cent. Revoice a strong answer: 'so 5 cent never gets muddled with 5 euro — each column keeps to its own place.' Display-only discussion; head off forgetting the carry.

COMMON MISCONCEPTIONS

⚠ Pupils write $€1.35 + €0.85$ as $€2.120$ — they treat 120 cent as a decimal fraction and just tack it on rather than trading 100c for a euro.

Stop and lay 120c on the coin-counter interactive, then physically swap a hundred single cent for one euro coin. 'A hundred cent isn't a cent any more — it becomes a euro and moves left.' Rewrite the sum with the €1 carried.

⚠ Pupils line the prices up ragged — $€1.20$ stacked over $€0.85$ with the 2 above the 8 — so cent lands under euro and the total is nonsense.

Point at the decimal points and draw a vertical line straight down through both. 'The points sit one on top of the other, always.' Have the pupil relist the sum with the points aligned before adding.

⚠ On $€2.99 + €1.50$, pupils get 149c and write 49c but forget to carry the euro, landing on $€3.49$ instead of $€4.49$.

Circle the 149 and ask 'is that more than a hundred cent?' Send the hundred up as €1 out loud, then re-add the euro column so the missed carry is visible.

DIFFERENTIATION

EMERGING

- Give these pupils only two-item baskets where the cent don't cross a hundred ($€1.20 + €0.60$) so they master alignment before trading.
- Let them build each price on the coin-counter interactive first and count the tray, rather than starting from the written column sum.

DEVELOPING

- Once they've finished, pose a missing-price basket: ' $€1.45 + ? = €2.00$ — what's the second item cost?'
- Swap in a price like $€1.99$ and ask them to predict the carry before they add, then check on the board.

PROFICIENT

- During Class Challenge, hand fast finishers a four-item basket that crosses a hundred twice and ask them to explain to the class exactly where each euro is carried from.
- Pull them ahead into the Student Activity Book baskets and ask them to write a rule, in words, for when a euro must be carried.

✓ **Cross-curricular:** Tie to SESE Geography — pupils price three items from a local Irish shop's real receipt and total the basket in euro and cent.

ANSWER KEY

a) €2.35

b) €2.50

c) €3.70

Q1: €1.80

Q2: €1.85

Q3: €2.20

Q4: €2.80

Spot: Tomás lined up the right-hand digits instead of the decimal points — he effectively added $€2.45 + €0.13 = €2.58$. The correct total is $€2.45 + €1.30 = €3.75$.

EXTENSION SHEET · STRETCH ANSWERS

S1: €84.44

S2: €13.41

S3: €75.55

S4: €7.40 ($€7.40 = 740$ cent; $€7.04 = 704$ cent)

S5: €3.61

Investigation: Spend exactly €5? — open-ended; scan pupils' working for valid solution paths rather than a single answer.