

The same amount, made different ways

CURRICULUM ALIGNMENT

MEA.MON.2 recognise the value of money and use euro and cent in a range of meaningful contexts.

INTERACTIVES Coin Counter · challenge, display, explore

WHAT THIS LESSON TEACHES

You can build the same total with different coins. The amount stays the same even when the coins change.

→ 5c as one 5c coin, or as $2c + 2c + 1c$

→ 10c as one 10c coin, or as two 5c coins, or as $5c + 2c + 2c + 1c$

MODEL THIS ON THE BOARD

SAME 5C, TWO COIN TRAYS

- 1 On the first tray put one **5c** coin. The total is **5c**.
- 2 On the second tray put **2c + 2c + 1c**. Add: $2 + 2 = 4$, then $4 + 1 = 5$.
- 3 Both trays show **5c**. The coins look different but the total is the same.

LESSON ARC

Open with a quiet think on making 5c without naming the answer yet. On the coin-tray interactive, walk two 5c trays side by side (one 5c coin versus $2c + 2c + 1c$), then three 10c trays, pointing at each coin as the class adds the cent. Pupils take turns building the same targets at the board. Copybook moment: two different ways to make 5c. Class Challenge checks three fixed targets briskly. Maths-talk closes on what stays the same when the coins change.

TEACHING MOVES

1. **Getting Started.** Pose 'I need 5c for the shop — one 5c coin, or another way?' Give a few seconds of silent think-time, then take three hands-up ideas only. Do not confirm; the trays on the next step do the checking.
2. **Watch and Notice.** Point at each coin as the class adds the cent aloud. Re-voice the first pair: 'one 5c coin, or $2c + 2c + 1c$ — same total.' Hold on the three 10c trays until someone names that every tray makes 10c before you move on. Ask 'how many cent is this tray?' never 'how many coins?'.
3. **Try It Together.** Rotate four pupils at the board. After each tray, ask the class for a second way before you clear. Keep the rail on 1c, 2c, 5c and 10c only. If someone taps a 20c, ask 'is that more than we need?' and let them clear it.
4. **Write two ways for 5c.** Walk the row glancing at the two lines — whole-class copybook practice, not marking. Accept any two correct combinations (five 1c, $2c + 1c + 1c + 1c$, and so on). Pupils who used coin cards may sketch the trays instead.
5. **Class Challenge.** Keep board work brisk: one pupil builds, taps Check, class confirms, next. Watch for coin-counting. Challenge 1 needs no 5c coin; challenge 2 is two 5c only; challenge 3 needs a genuine mix, not two 5c again.

6. What Did We Notice?. Listen for ‘the total matches even when the coins look different.’ Re-voice: ‘so it is the cent that matter, not how many coins you hold.’ If someone only lists coins, ask ‘what is the same about both trays?’

COMMON MISCONCEPTIONS

⚠ Pupils count the coins on the tray and say ‘three’ instead of reading the total as 5c.

Stop and ask ‘how many cent is this tray?’ Point at each coin’s value as the class re-adds: $2 + 2 + 1 = 5$ cent, not three coins.

⚠ Pupils treat only the single-coin tray as the ‘right’ way and call mixed trays wrong.

Hold two trays that both total 10c side by side. ‘Both add to 10c — more than one way can be right.’ Revoice the key idea before clearing.

⚠ On ‘5c without a 5c coin’, a pupil taps a 10c or 20c and freezes.

Ask ‘is that more than we need?’ and let them clear it. Steer back to 1c and 2c only until the tray hits exactly 5c.

DIFFERENTIATION

EMERGING

- Stay on 5c targets only and pre-place one 2c on the tray so the pupil finishes the total with 1c and 2c coins.
- Accept a sketched coin-card tray in the copybook instead of written number sentences.

DEVELOPING

- After the copybook two-ways, ask for a third way to make 5c using only 1c and 2c coins.
- On the 10c mix challenge, ask ‘can you make 10c with four coins? With three?’ before clearing.

PROFICIENT

- At the board, stretch the last challenge: ‘make 10c three different ways — name what stays the same each time.’
- Pose: ‘why can two 5c coins match one 10c coin?’ and take one strong justification aloud before What’s Next.

➤ **Cross-curricular:** Tie to the school shop — price a rubber at 5c or 10c and let pupils show two correct handfuls before ‘paying’.

ANSWER KEY

Scaffold: visual check on the page

Q1: 5c + 2c

Q2: 1c + 1c + 1c + 1c + 1c

Q3: 20c + 20c

Q4: 2c + 2c + 2c + 2c + 2c

a) Always : Both trays add to 5c so the amount is the same.

b) Never : Two 5c coins or other mixes also make 10c.

c) Always : $5 + 5 = 10$ so the total is 10c.

d) Sometimes : Coins can change but still add to the same total, or they can add to a new total.

EXTENSION SHEET · STRETCH ANSWERS

S1: 2c

S3: 5c

S2: 2c

S4: 5c