

Profit, loss and best-value shopping

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 (Best Buy Compare · challenge, display, explore)

WHAT THIS LESSON TEACHES

Profit is selling price minus cost price. Best value is found by dividing pack price by number of items to get the unit price.

→ A 6-pack costs €2.40 so each pot is 40c.

→ Singles at 45c each cost more than the 6-pack unit price.

MODEL THIS ON THE BOARD

FINDING THE BETTER BUY

- 1 Divide the pack price by the number of items: $€2.40 \div 6 = 40\text{c}$ per pot.
- 2 Compare with the single price of 45c.
- 3 The 6-pack wins because 40c is less than 45c.

LESSON ARC

Open with the yoghurt dilemma — a 6-pack for €2.40 versus 45c singles — and take three hands-up guesses without settling it. Walk the four shelf-tag comparisons on the best-buy-compare interactive, dividing each pack price to find the cost of one, saving the pack-size twist for a class prediction. Pivot to profit and loss on a fundraising stall in words. Pupils write unit prices and profit/loss lines in their copies, then run the Class Challenge comparisons at the board.

TEACHING MOVES

1. **Getting Started.** Take three hands-up answers on the yoghurt buy — not open call-outs — and deliberately refuse to say which is cheaper. The tension is the hook: gut feeling isn't proof. Ask 'how could you actually show it?' and carry that unanswered into the next step.
2. **Watch and Notice.** Point at the division on each card and name what it finds — 'the price of just one'. On the fourth card, make the class predict before you reveal: most back the 12-pack, but the 5-pack on offer wins by 8c a bag. Then read the badge and scarf figures aloud, saying both rules as you go: profit is selling above cost, loss is selling below.
3. **Try It Together.** Work the cereal-bars pair on the interactive (60c beats 65c) in about 3 minutes, the bottles pair on the board in about 3 minutes, then the two profit-and-loss cases as words for 4 minutes. Watch for pupils subtracting the wrong way round on the scarf loss — sale minus cost gives a negative they can't read.
4. **Work It in Your Copy.** Walk the room glancing for two things: are pupils actually dividing to get the unit price, and is the loss subtraction the right way round? Show pupils the Cost / Sale / Profit-or-Loss lines stacked one under the other — the layout does half the thinking. No marking.
5. **Class Challenge.** Keep it brisk — pupils take turns at the board, divide to the unit price, predict the winner, let Check confirm, move on. Save the battery twist for the climax: the smaller 5-pack really is

cheaper per battery (55c vs 60c). Finish with the total-profit sum worked alongside, then ask what changes if three wristbands go unsold.

6. **What Did We Notice?** Let the 'bigger pack always wins' pupil and the 'work out the price of one' pupil both speak, then revoice the strong answer: 'the only fair way to compare is the price of one — and that's why the big pack sometimes loses.' Name the unit price as the deciding tool.

COMMON MISCONCEPTIONS

⚠ Pupils say the bigger pack must be the better deal — 'the 12-pack is loads, so it's the bargain' — and skip the division entirely.

Use the fourth Watch-and-Notice card: make them commit to the 12-pack out loud, then reveal the 5-pack winning by 8c a bag. The surprise sticks better than telling them. Send them back to the division every comparison after.

⚠ On the scarf, pupils subtract cost from sale (€5 – €6) and either get stuck or announce a €1 profit when it's a loss.

Stop and ask 'did the stall get back more than they paid, or less?' Less means loss. Line up cost above sale on the board and say the loss rule: cost price minus selling price. Have the pupil re-read their own line.

DIFFERENTIATION

EMERGING

- Give these pupils the packs that divide cleanly ($€2.40 \div 6$, $€3.00 \div 5$) so the arithmetic doesn't hide the idea; keep the awkward washing-powder divisions for the board.
- For the profit-and-loss copy work, have them write only the Cost and Sale lines first and say aloud 'more or less?' before attempting the third line.

DEVELOPING

- After the copy page, hand them the tie-style case: two packs with the same unit price — is there a better buy at all, and how would you decide?
- Ask them to work backwards: if a pen costs 40c each, what would a fair price be for a 15-pack?

PROFICIENT

- Pose the unsold-stock question from the Class Challenge as a written investigation: the stall buys 20 wristbands at €2 but only sells 14 at €3.50 — profit or loss, and how many must sell just to break even? Work it in the copy.
- Pull them ahead into the Student Activity Book profit rows while the class finishes the board comparisons.

✓ **Cross-curricular:** Tie to a real class shop or cake-sale fundraiser — pupils bring in actual shelf tags from home and rank three products by unit price.

ANSWER KEY

a) €0.40

b) €0.90

c) €1.50

Q1: €0.60

Q2: 8-pack (25c each)

Q3: 9-pack (€0.30 each)

a) **Sometimes** : True if its unit price is lower; false if a smaller pack costs less per item.

b) **Always** : That is the definition of profit.

c) **Always** : The lower unit price is the better value.

d) **Always** : Loss is the opposite of profit.

EXTENSION SHEET · STRETCH ANSWERS

S1: €311.94 (discount: €55.05)

S2: €2.35

S3: €3.53

S4: €3.43

S5: €151.81