

Time and money review

CURRICULUM ALIGNMENT

MEA.TIM.3a

compare, approximate and measure time using appropriate units of measurement.

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

Some everyday problems ask about time and money at once, so we sort out which part is a clock question and which part is a money question before we work.

→ An apple 30c and a juice €1 come to €1.30 altogether.

→ Paying €2 for a €1.40 roll gives 60c change.

MODEL THIS ON THE BOARD

APPLE, JUICE AND THE TOTAL

- 1 Sort out the money part: the prices are **30c** and **€1** (no clock part here).
- 2 Place **30c** on the coin tray first.
- 3 Add the **€1** coin beside it.
- 4 Say the total aloud and check: **30c** plus **€1** makes **€1.30**.

LESSON ARC

Open by unpacking a bus-day-out sentence into its hidden time question and money question. On the coin-counter tray, build €1.50 live and then model change from €2 for a €1.40 roll by counting on coin by coin, then cross to the printed clock at the front to count on one hour. Volunteers build totals on the tray while the class agrees aloud. Pupils then work three mixed review questions in their copybook — one clock read, one total, one change sum.

TEACHING MOVES

1. **Getting Started.** Give a few seconds of quiet think-time, then take two or three hands-up answers only. Draw out that one short bus sentence carries two jobs — 'when' the bus goes and 'how much' it costs — and name that split as today's whole point.
2. **Watch and Notice.** Point at each coin on the tray as the class tallies the €1.50 aloud. For the change, build the roll's €1.40 then add coins one at a time up to €2, saying '1.40, 1.50, 1.60...' so pupils see the 60c grow rather than appear. Then step to the printed clock and hold out for pupils to name which tool answers the money part and which the time part.
3. **Try It Together.** Volunteers build each total on the tray while the class agrees or corrects aloud. Before the tray is checked, ask pupils to predict where the euro part changes — 60c and 50c roll past 100 into €1.10, which trips them. For the change build, insist on counting on from €1.75 up to €2.
4. **Work It in Your Copy.** Display one clock face, one 'price + price' total, and one 'cost, paid, change' sum. Walk the room glancing — not marking. Watch specifically that the change sum is worked by counting on and that totals keep euro and cent lined up in columns.

5. **Class Challenge.** Brisk turns — pupils build, class confirms, move on. Keep the printed clock beside the tray so pupils point to which tool answers which part. On the final two-part question, have pupils name the operation aloud (one hour of time AND €2.50 change from €5) before anyone builds it.
6. **What Did We Notice?** Listen for genuine two-part situations — a paid bus to catch, a timed cinema ticket, a car park paid by the hour. Revoice a strong answer: 'so you worked out the time first, then the money — one job at a time.' Head off any pupil who adds a clock time to a price.

COMMON MISCONCEPTIONS

- ⚠ Pupils total 60c and 50c as €1.10... but many write €0.110 or say 'one hundred and ten cent', not seeing the cent part has rolled past 100 into a euro.
Before checking the tray, ask 'where does the euro part change?' Build ten 10c coins and swap them for a euro coin on the tray so the class sees 100c become €1, then rebuild 60c + 50c = €1.10.
- ⚠ Pupils find change from €2 for a €1.40 roll by trying to subtract in their heads and land on 40c or 70c. Stop and rebuild it as counting on. Lay €1.40 on the tray, then add coins one at a time up to €2, saying each step aloud, and point at the coins that got added — that pile is the 60c change.
- ⚠ In the two-part match question a pupil answers with a single number, adding the start time to the ticket price (e.g. '2 plus 2.50').
Ask them to point to the clock for the time part and the tray for the money part. Name the two answers separately — 'one hour' from the clock, '€2.50 change' from the tray — before writing anything.

DIFFERENTIATION

EMERGING

- In the copybook question, give a 'cost, paid, change' sum where paid is a round €2 and cost is a whole number of ten-cent coins, so counting on lands in clean 10c steps.
- Let these pupils build totals on the tray alongside you before the whole-class Try It Together, so the coins are already familiar when it's their turn.

DEVELOPING

- After the tray totals, ask pupils to build €2.65 in as few coins as possible, then in a completely different set of coins — is one way 'better'?
- Give a three-item shopping total (apple 30c, juice €1, magazine €2.50) so they line up three amounts before finding change from €5.

PROFICIENT

- Pose a working-backwards question on the tray: 'I got 35c change from €2 — what could I have bought and at what price?' Ask them to find two different answers and explain how they know both work.
- Narrate a harder two-part variant for fast finishers: a match starts at quarter to 3 and lasts 90 minutes — what time does it end, and what's the change from €10 for two €3.50 tickets?

✓ **Cross-curricular:** Tie to Geography — pupils plan a real Dublin Bus trip, reading a timetable for the departure time and totalling the fares for the family.

ANSWER KEY

a) €4.20

b) 60c

c) €3

Q1: 1 hour

a) **Always** : The lesson rule is to separate time and money so each gets the right tool.

b) **Never** : Price totals use the coin tray, never the clock face.

c) **Always** : Day-out plans like the bus example always mix the two skills.

d) **Never** : Change is found on the coin tray by counting coins, not by reading clock hands.

EXTENSION SHEET · STRETCH ANSWERS

S1: 1 hour 30 minutes, and 50c change

S2: €1.50 (she spends €3.50)

S3: quarter past 11

S4: €8 (4 Saturdays: the 3rd, 10th, 17th and 24th)

S5: 4 sessions, costing €12