

Turning word problems into number sentences

WHAT THIS LESSON TEACHES

A missing-number sentence is a story written in maths: numbers, a sign and an equals sign, with a box for the number we do not know yet. 'Got more' joins, so we add; 'some left' takes away, so we subtract.

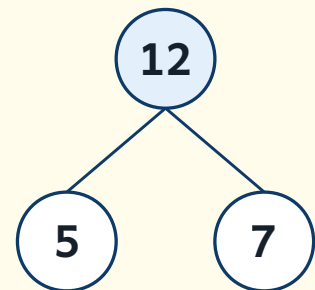
→ 'Aoife had some buns and got 4 more to reach 11' becomes $\square + 4 = 11$.

→ 'A shelf had 12 tins, some were sold and 8 were left' becomes $12 - \square = 8$.

MODEL THIS ON THE BOARD

TURNING A STORY INTO A BOXED SENTENCE

- 1 Liam had 12 apples, gave some away and had 7 left.
- 2 'Gave away' means subtract, and 12 is known first: $12 - \square = 7$.
- 3 The bond shows the missing part: $12 - 7 = 5$.



DISCUSSION STARTER

REFLECT Do you prefer a box or a letter for the unknown — and why?

ANSWER KEY

a) $\square + 4 = 11$, $\square = 7$

b) $6 + \square = 10$, $\square = 4$

c) $12 - \square = 8$, $\square = 4$

Q1: $2 + 8 = 10$

Q2: $\square - 6 = 9$, $\square = 15$

a) Always — Joining more onto an amount is always addition.

b) Always — The box always holds the one number we do not know yet.

c) Sometimes — It goes at the start only when the amount we began with is unknown, like $\square + 4 = 11$.

d) Always — Taking some away is always subtraction.

EXTENSION SHEET · STRETCH ANSWERS

S1: $x = 55$

S2: 68

S3: $x = 19$

S4: 23

S5: 89