Lesson 115 MIXED

End-of-primary maths recap — a tour of the five areas

CURRICULUM ALIGNMENT

- NUM.FRC.4a — explore (model, compare and convert) the relationships between fractions, decimals and percentages.
- NUM.PVT.4 — investigate how decimals and percentages (and fractions) can be compared, ordered and expressed in related terms.
- SHA.SHP.4a — construct 3-D and 2-D models or structures given defined measurements and/or specific conditions.
- ALG.PRR.4a — identify, explain and apply generalisations, including properties of operations, mathematical models and patterns.

INTERACTIVES Fraction Strips · display | Place Value Blocks (Dienes) · display | Coordinate Grid · display, explore | Number Line · display | Tally Chart · display

WHAT THIS LESSON TEACHES

When a place is too big to measure with metre sticks, we estimate its area by pacing the sides or by splitting it into simple rectangles, then multiplying. Two sensible methods that land close together give a safe figure we can trust.

→ 20 paces of about 0.7 m each give a side of roughly 20 x 0.7 = 14 m.

→ An L-shaped yard split into 14 m x 8 m and 6 m x 4 m has area 112 m2 + 24 m2 = 136 m2.

MODEL THIS ON THE BOARD

YARD AREA TWO WAYS

1. Pace the long side: 20 paces x 0.7 m = **14** m.
2. Pace the short side: 12 paces x 0.7 m = **8.4** m.
3. Way 1 area: 14 x 8.4 = **117.6** m2 (about 118 m2).
4. Way 2: split into 14 m x 8 m rectangle (**112** m2) plus a 6 m x 4 m piece (**24** m2).
5. Total 112 + 24 = **136** m2. The two estimates agree near 120-140 m2.

ANSWER KEY

Q1: 17.6 m

Q2: 10.4 m

Q3: 105 m^2

Q4: 118 m^2 and 136 m^2

a) Never — Pacing only gives a rough estimate, not an exact figure.

b) Always — That is a standard reliable method for composite shapes.

c) Sometimes — Good methods often agree closely, but the gap can be larger if pacing is uneven.

d) Always — Estimates are best shown as a sensible range when methods nearly agree.