

Area, perimeter and volume review

CURRICULUM ALIGNMENT

MEA.MSR.3a compare, estimate and measure length, weight, capacity, area and volume using appropriate instruments and record and communicate appropriately.

SHA.SHP.3b represent shapes with drawings and models, and calculate dimensions of shapes.

INTERACTIVES Shape Measurer · display, explore Volume Builder · display Word Problem · challenge

WHAT THIS LESSON TEACHES

The perimeter is the total distance all the way around the outside of a flat shape. Add the length of every side to find it, and label the answer in cm.

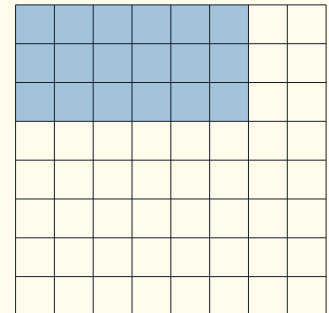
→ A 6 cm by 3 cm rectangle has a perimeter of $6 + 3 + 6 + 3 = 18$ cm.

→ A 7 cm by 3 cm rectangle has a perimeter of $7 + 3 + 7 + 3 = 20$ cm.

MODEL THIS ON THE BOARD

PERIMETER AND AREA OF A 6 CM BY 3 CM RECTANGLE

- ① The shaded rectangle is 6 cm long and 3 cm wide.
- ② Perimeter is the distance around: $6 + 3 + 6 + 3 = 18$ cm.
- ③ Area is the space inside: $6 \times 3 = 18$ cm² (or count the 18 squares).



DISCUSSION STARTER

REFLECT Which measure feels clearest now — perimeter, area or volume — and which still needs practice?

ANSWER KEY

a) 20 cm

b) 20 cm²

c) 24

Q1: 38 m

a) **Always** : Perimeter is always the total of all the side lengths added together.

b) **Sometimes** : It can be cm, but it could also be m or mm depending on the units given.

c) **Always** : Four sides of 5 cm give $5 + 5 + 5 + 5 = 20$ cm every time.

d) **Never** : Square units like cm² are for area, never for the distance around.

EXTENSION SHEET · STRETCH ANSWERS

S1: 12 cm

S2: 40 cm

S3: 18 cm²

S4: 56 m

Investigation: Pack the box — open-ended; scan pupils' working for valid solution paths rather than a single answer.