

Same perimeter, different area: an investigation

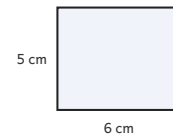
MODULE 5 · AREA, PERIMETER AND VOLUME MEASURES

HOW TO ANSWER TODAY

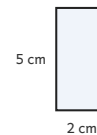
- **Area.** Area = length $\times$ width. Write the answer in square units (cm^2 , m^2).
 $5 \text{ m} \times 3 \text{ m} \rightarrow 15 \text{ m}^2$
- **Perimeter.** Perimeter is the distance ALL the way round. Rectangle: $(\text{length} + \text{width}) \times 2$.
 $12 \text{ m by } 8 \text{ m} \rightarrow (12 + 8) \times 2 = 40 \text{ m}$

★ STRETCH PROBLEMS

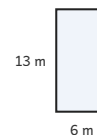
- 1 Tadhg draws a scale plan of the reading corner on grid paper. The rectangle he draws measures **6 cm** by **5 cm**. What is the area of his rectangle?



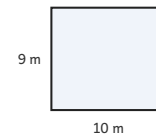
- 2 Cian draws a small rectangular starting box on the yard map for the mini athletics track. The box measures **2 cm** by **5 cm** on his plan. What is the area of the box?



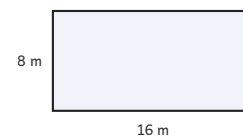
- 3 The school garden club is building a rectangular vegetable bed that measures **6 m** by **13 m**. They want to put a wooden edge all the way around it. What is the perimeter of the bed?



- 4 The caretaker paints a rectangular games area on the school yard that measures **10 m** by **9 m**. Cian wants to put a coloured line all the way around the edge. What is the perimeter of the games area?



- 5 The 4th class garden club marks out a rectangular vegetable patch in the school orchard. The patch measures **16 m** along one side and **8 m** along the other. They want to put a low fence right around the edge. What is the perimeter of the patch?



● INVESTIGATE

Fence the biggest garden

You have **24 m** of fencing for a rectangular garden. Sketch at least four different rectangles that use all 24 m of fence. Find the **area** of each. Which shape gives the most growing space, and which the least? What do you notice?
