Learning activities

Activity 1

**Challenge
2**

Objective

• Measure and calculate the perimeter P of composite rectilinear shapes in centimetres and metres
using the rule *P* = 2(*a* + *b*)

Resources

1 cm interlocking cubes in two colours (per pair)

What to do

• Each child makes a rectangle with no more than 16 interlocking cubes in one colour.

• They investigate the perimeter of the shapes they can make by joining their two rectangles edge to edge in different ways.

Variation

**Challenge
3**

• Children investigate different shapes that can be made using six interlocking cubes and calculate their perimeters.

Activity 2

**Challenge
2**

Objective

• Calculate and compare the area of rectangles (including squares), using standard units, square centimetres (cm2) and square metres (m2), and using the rule *A* = *a* × *b*

Resources

2 × 1–9 dice (per pair), centicubes (per pair)

What to do

• Children take turns to:

- roll the two dice, e.g. 6 and 3 (If a dice shows 1 then it is rolled again.)

- use the two digits to make an L-shape with centicubes, e.g. 6 indicates the number of squares on one arm of the L-shape and
3 indicates the number of squares on the other arm of the shape

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- ask their partner to find the area of the whole rectangle where these arms are two of its sides.

• They repeat the activity for a further four turns each.

Variation

• Children use two 1–6 dice.

**Challenge
1**



**Unit 8: Measurement (perimeter and area)**

Activity 3

**Challenge
2**

Objective

• Use the relations of perimeter or area to find unknown lengths

Resources

mini whiteboard, eraser and pen (per child)

What to do

• Children take turns to draw a rectangle on their whiteboard.

• They write a two-digit even number inside the rectangle, e.g. 36 cm, and label one side of the rectangle with its length, e.g. 12 cm.

• They ask their partner to find the missing length, e.g. 6 cm, so that the two lengths, e.g. 2(12 + 6) cm equate to the perimeter of the rectangle, e.g. 36 cm.

Variations

**Challenge
1**

• Limit the range of numbers for the perimeter of the rectangle to match children’s abilities.

**Challenge
3**

• Ask children to find the missing length of a side given the area of the rectangle.

Activity 4

**Challenge
2**

Objective

• Calculate the area of irregular shapes formed from rectangles

Resources

pin board (per child), rubber band (per child), mini whiteboard, eraser and pen (per child)

What to do

• Each child:

- makes an irregular shape L-shape or U-shape on their pin board with the rubber band

- swaps pin boards with their partner who partitions the shape and applies the rule *A* = *a* × *b* to work out the area of the whole shape, recording it on their whiteboard.

• Children repeat the activity for a further five examples.

Variation

**Challenge
3**

• Extend the range of irregular shapes to include H-shapes and T-shapes.