Introducing perimeter

National curriculum attainment target

• Measure the perimeter of simple 2-D shapes

Lesson objective

• Calculate the perimeter of rectangles in centimetres and in metres

Previous related lessons

None

Prerequisites for learning

Pupils need to:

- know that length is measured in metres and centimetres
- add and subtract two-digit numbers

Vocabulary

measure, distance, perimeter, centimetre (cm), metre (m)

Future related lessons

Unit 8, Week 3, Lessons 2-4

Success criteria

Pupils can:

- understand and apply the term "perimeter" to the sides of a rectangle
- calculate the perimeter of rectangles in centimetres and in metres



Getting Started

• Choose an activity from Measurement (perimeter).

Collins Connect
Year 3, Unit 8, Week 3

Teach

Resources

rectangle (per child), 24 centicubes (per pair), paper (per child), ruler (per child)

1-3 •

- Display: Slides 1–3.
- First introduce the term "perimeter" in the context of boundaries, for example, a perimeter fence, a hedge which surrounds a garden or field, then as distances around shapes and objects, for example, an oval running track for athletes which surrounds the central field for other events.
- Distribute rectangles, centicubes, rulers and paper to children.
- Say: Take a rectangle and draw round its four sides with your pencil on to your paper. Establish that the pencil outline is the perimeter or distance around the rectangle and makes a closed shape by coming back to the starting point.
- Say: Take six centicubes each. Use all six centicubes, join them together and make a rectangle. Draw round its four sides with your pencil on to your paper. Work out the perimeter of your rectangle.
- Recall that all the edges of a cube measure one centimetre and ask: Who made a rectangle that is six cubes long? Elicit that the sides of the rectangle measure 6 cm by 1 cm and that the perimeter is 6 + 1 + 6 + 1 = 14 or 14 cm.
- Ask: Who made a different rectangle with their cubes? Elicit that the rectangle has sides of 3 cm and 2 cm. What does its perimeter measure? (10 cm)
- Ask: How did you work out the perimeter? (3 + 2 + 3 + 2 = 10 or 10 cm) Did anyone use a different method? (3 + 2 = 5; 2 × 5 = 10 or 10 cm)
- Ask pairs to make as many different rectangles as they can, using 12 cubes each time, and then to find the perimeter of each rectangle.
- Take feedback and elicit the results for three rectangles. (perimeters of 14 cm, 16 cm and 26 cm)
- Ask: What unit of length would we use to measure the perimeter fence/wall/hedge round a field/school/garden/sports ground? (metre) Elicit local examples where the perimeter, as a boundary or path, is measured in metres.



Overcoming Barriers

• Suggest that children begin at a corner (vertex) of a rectangle when counting the number of 1 cm units around the edge to find the perimeter.