

Maths - Year 5

Measurement 5: Working with area and perimeter

Key Vocabulary

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| Area | An amount of surface. |
| Perimeter | The distance around a shape. |
| Dimensions | Measureable part of a shape or object e.g. length, depth, width etc. |
| Rectilinear shape | A polygon where all the sides meet at right angles. |
| Composite shape | A shape that is made up of a number of different shapes. |
| Factor | A number that divides into another number exactly. |
| Multiple | The product of two whole numbers. |
| Square metre (m ²) | A unit used to measure area. |
| Square centimetre (cm ²) | A unit used to measure area. |

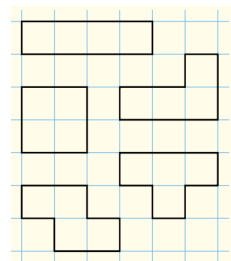
Mathematical Skills

- Understand that perimeter is the distance around the edge of a shape and area is the amount of surface within a shape.
- Understand that shapes with the same area can have different perimeters and vice versa.
- Calculate perimeter in metres based on the properties of a shape.
- Create composite shapes made from rectilinear shapes.
- Calculate the area of composite shapes.
- Estimate the area of irregular shapes and shapes with non-perpendicular sides.
- Express the area and perimeter of a rectangle algebraically.
- Use algebra with known facts to show area or perimeter of rectangles with unknown lengths.
- Find unknown lengths using known facts about area or perimeter of rectangles.
- Understand units of area as squares of a given side length, e.g. square metres have a given side length of 1 metre.

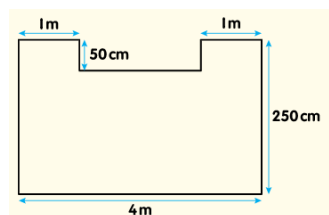
Mathematical Methods

- Investigating shape, area and perimeter.

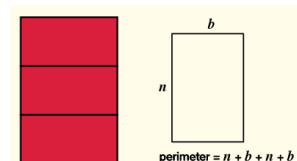
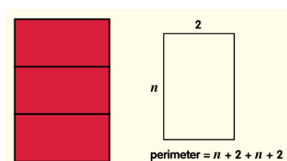
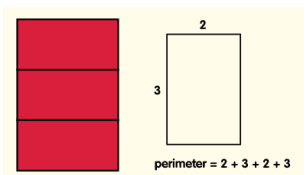
E.g. designing a rabbit compound that will give each rabbit 1cm² space.



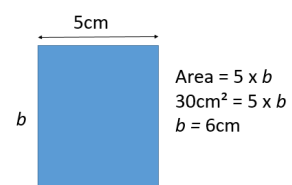
- Finding the area of composite shapes.



- Calculating area and perimeter of oblongs with unknown lengths.



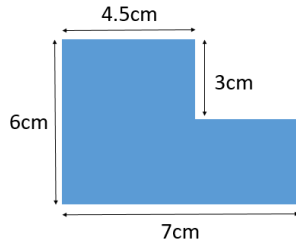
- Finding an unknown side length from a given area or perimeter.



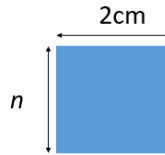
Can you..?

- A farmer needs to build a rectangular pen for his 6 chickens, so that each chicken has at least 1m by 1m of space. Fencing panels are 1m long. What is the smallest number of panels he could use?

- Find the area of the shape.



- Calculate the area and perimeter of the shape.



- Can you work out the area and perimeter of the shape in terms of rods.

