



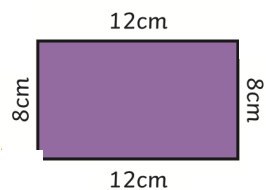
# Year 4 - Length, Perimeter and Area

## Key vocabulary

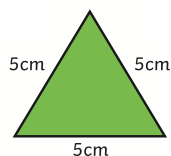
Area	Perimeter
Length	Unit
Measure	Convert

## Perimeter

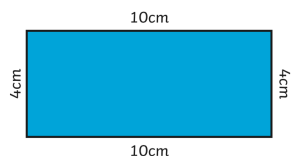
To find the perimeter of any shape with straight sides, simply **add together the length of all the sides**.



The perimeter of this rectangle is:  
 $12\text{cm} + 12\text{cm} + 8\text{cm} + 8\text{cm} = 40\text{cm}$



The **perimeter** of this triangle is:  
 $5\text{cm} + 5\text{cm} + 5\text{cm} = 15\text{cm}$



Rectangles and parallelograms have two pairs of equal parallel sides, so you could also work it out like this:

multiply 10cm by 2 and 4cm by 2 and add the totals together:

$$10 \times 2 = 20 \text{ and } 4 \times 2 = 8 \text{ so } 20 + 8 = 28\text{cm}$$

or

add 10cm and 4cm then multiply by 2:

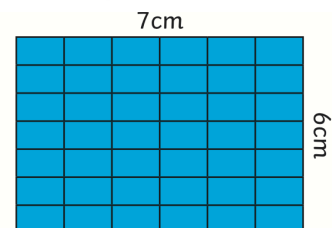
$$10 + 4 = 14 \longrightarrow 14 \times 2 = 28\text{cm}$$

## Area

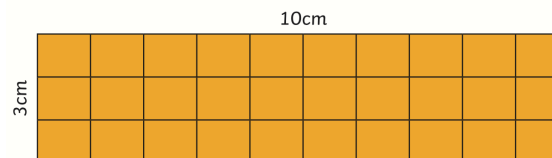


Area is the amount of space taken up by a 2D shape or surface.

**Area** is measured in square units.  
squared centimetres (**cm<sup>2</sup>**)  
squared metres (**m<sup>2</sup>**)  
squared kilometres (**km<sup>2</sup>**)



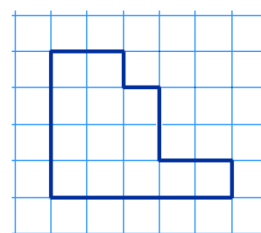
The **area**:  
 $10\text{cm} \times 3\text{cm} = 30\text{cm}^2$



The **area**:  
 $7\text{cm} \times 6\text{cm} = 42\text{cm}^2$

We can use our knowledge of area to make rectilinear shapes using a given number of squares. For example, you can make many different shapes that all have an area of 5cm<sup>2</sup>.

## Perimeter and Area by counting squares



To find the area of an irregular shape, you would count all the squares inside the shape.

To find the perimeter, you would count all the squares around the edge.