

Year 6      Block 10      Unit: Perimeter, area and volume

Key Vocabulary:

perimeter	Area	volume	cubic units	cuboid	width
length	rectangle	rectilinear	parallelogram	perpendicular height	

What will I know by the end of this unit?

**Area and perimeter:**

Find the area of this rectilinear shape.

$8 \text{ cm} \times 5 \text{ cm} = 40 \text{ cm}^2$   
 $2 \text{ cm} \times 6 \text{ cm} = 12 \text{ cm}^2$   
 $40 \text{ cm}^2 - 12 \text{ cm}^2 = 28 \text{ cm}^2$

Perimeter = 22 cm

**Area of a right-angled triangle:**

Area of a triangle =  $\frac{\text{Base} \times \text{Perpendicular height}}{2}$   
 Area of a triangle =  $\frac{1}{2} \times \text{Base} \times \text{Perpendicular height}$   
 =  $\frac{1}{2} \times 4 \times 7$

**Area of any triangle:**

Area of a triangle =  $\frac{1}{2} \times \text{Base} \times \text{Perpendicular height}$

$4 \text{ cm}$  (Base)  
 $3 \text{ cm}$  (Perpendicular height)  
 $6 \text{ cm}^2$

**Area of a parallelogram:**

$3 \times 3 = 9 \text{ squares}$   
 $9 \text{ cm}^2$

**Volume - counting cubes:**

Volume = 7 cubes  
 Volume = 7 cubes  
 Volume = 13 cubes

**Volume of a cuboid:**

Volume of a cuboid = Length  $\times$  Width  $\times$  Height

Use the formula to calculate the volume of the cuboids.

$7 \times 3 \times 5 = 105 \text{ m}^3$   
 $4 \times 2 \times 10 = 80 \text{ mm}^3$