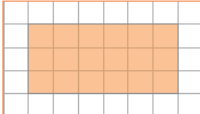
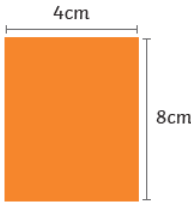
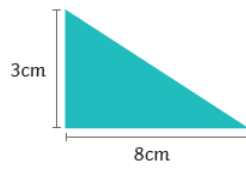
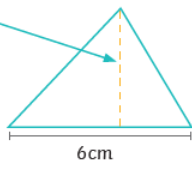
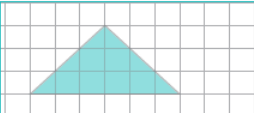

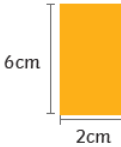
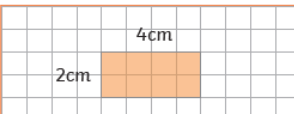
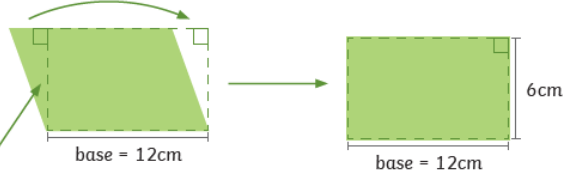
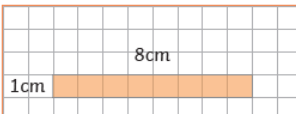
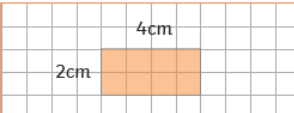
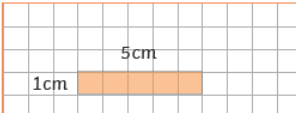
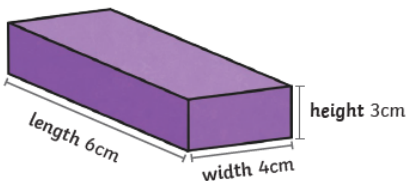

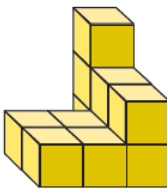
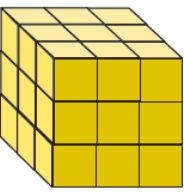


# In maths we are learning about...

Perimeter, Area and Volume	Knowledge Organiser	
<b>Key Vocabulary</b>	<b>Area of Rectangles</b>	<b>Area of Triangles</b>
perimeter	$\text{length} \times \text{width} = \text{area of a rectangle}$	$\text{base} \times \text{perpendicular height} \div 2 = \text{area of a triangle}$
area	 	 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>8\text{cm} \times 3\text{cm} \div 2</math>  <math>\text{area} = 12\text{cm}^2</math> </div>
volume	<b>Counting squares:</b> $\text{area} = 18\text{cm}^2$ <b>Use formula:</b> $6\text{cm} \times 3\text{cm}$ $\text{area} = 18\text{cm}^2$	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>6\text{cm} \times 5\text{cm} \div 2</math>  <math>\text{area} = 15\text{cm}^2</math> </div> 
cubic units (e.g. $\text{cm}^3$ )	$8\text{cm} \times 4\text{cm} \text{ area} = 32\text{cm}^2$	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>6\text{cm} \times 3\text{cm}</math>  <math>\div 2 = 9\text{cm}^2</math> </div>
cuboid	<b>Perimeter of Rectangles</b>	
width	$\text{perimeter} = \text{length} + \text{width} + \text{length} + \text{width}$ or $(\text{length} + \text{width}) \times 2$	<b>Counting squares:</b> 6 whole squares = $6\text{cm}^2$ 6 half squares = $3\text{cm}^2$ $6\text{cm}^2 + 3\text{cm}^2 = 9\text{cm}^2$ $\text{area} = 9\text{cm}^2$
length	 	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>6\text{cm} \times 3\text{cm}</math>  <math>\div 2 = 9\text{cm}^2</math> </div>
rectangle	$5\text{cm} + 4\text{cm} + 5\text{cm} + 4\text{cm}$ $\text{area} = 18\text{cm}^2$	$(6 + 2) \times 2$ $\text{area} = 16\text{cm}^2$
rectilinear	$5\text{cm} + 4\text{cm} + 5\text{cm} + 4\text{cm}$ $\text{area} = 18\text{cm}^2$	
parallelogram		
perpendicular height		

Perimeter, Area and Volume	Knowledge Organiser
<b>Perimeter and Area</b>	<b>Area of Parallelograms</b>
<b>Shapes with the same area can have different perimeters.</b>	$\text{base} \times \text{perpendicular height} = \text{area of a parallelogram}$
 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>\text{area} = 8\text{cm}^2</math> perimeter = 12cm                 </div>	<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>\text{A parallelogram can be transformed into a rectangle.}</math> </div> 
 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>\text{area} = 8\text{cm}^2</math> perimeter = 18cm                 </div>	<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>\text{perpendicular height} = 6\text{cm}</math> </div> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>12\text{cm} \times 6\text{cm} = 72\text{cm}^2</math> </div>
<b>Shapes with the same perimeter can have different areas.</b>	<b>Volume of Cuboids</b>
 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>\text{area} = 8\text{cm}^2</math> perimeter = 12cm                 </div>	$\text{length} \times \text{width} \times \text{height} = \text{volume of a cuboid}$
 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>\text{area} = 5\text{cm}^2</math> perimeter = 12cm                 </div>	
<b>Volume - Counting Cubes</b>	<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>\text{Multiply dimensions in any order:}</math>  <math>3\text{cm} \times 6\text{cm} \times 4\text{cm}</math>  <math>\text{volume} = 72\text{cm}^3</math> </div>
 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>= 1\text{cm}^3</math> </div>	
 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>11\text{cm}^3</math> </div>	
 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> <math>27\text{cm}^3</math> </div>	