

<b>Curriculum Map</b>	<b>Subject: Mathematics</b>		
<b>Theme / Area Covered</b>	<b>Unit 13 Calculating Space</b>		
	<b>Age Related Targets – Year 7</b>	<b>Age Related Targets – Year 8</b>	<b>Age Related Targets – Year 9</b>
<b>Key Objectives / Learning Pathway</b> <b>Emerging</b>	<p>Calculate the area of squares and rectangles            Calculate the perimeter of squares and rectangles            Calculate the area and perimeter of compound shapes made up of squares and rectangles.</p>	<p>Recognise that shapes with the same areas can have different perimeters            Calculate the area of a parallelogram            Calculate the area if a triangle            Estimate the volume of cubes and cuboids            Calculate the volume of cubes and cuboids            Convert between metric units of area in simple cases            Convert between metric units of volume in simple cases</p>	<p>Calculate perimeter of 2D shapes            Use and apply the formula to calculate the area of triangles            Use and apply the formula to calculate the area of trapezia            Use and apply the formula to calculate the volume of cuboids            Find the surface area of cubes and cuboids            Know parts of a circle</p>
<b>Key Objectives / Learning Pathway</b> <b>Developing</b>	<p>Recognise that shapes with the same areas can have different perimeters            Calculate the area of a parallelogram            Calculate the area if a triangle            Estimate the volume of cubes and cuboids            Calculate the volume of cubes and cuboids            Convert between metric units of area in simple cases            Convert between metric units of volume in simple cases</p>	<p>Calculate perimeter of 2D shapes            Use and apply the formula to calculate the area of triangles            Use and apply the formula to calculate the area of trapezia            Use and apply the formula to calculate the volume of cuboids            Find the surface area of cubes and cuboids            Know parts of a circle</p>	<p>Know circle definitions and properties, including centre, radius, chord, diameter, circumference            Calculate the circumference of a circle when radius and diameter is given            Calculate the perimeter of composite shapes that include sections of a circle            Calculate the area of a circle when radius or diameter is given            Calculate the area of composite shapes that include sections of a circle</p>
<b>Key Objectives / Learning Pathway</b> <b>Securing</b>	<p>Calculate perimeter of 2D shapes            Use and apply the formula to calculate the area of triangles            Use and apply the formula to calculate the area of trapezia            Use and apply the formula to calculate the volume of cuboids            Find the surface area of cubes and cuboids            Know parts of a circle</p>	<p>Know circle definitions and properties, including centre, radius, chord, diameter, circumference            Calculate the circumference of a circle when radius and diameter is given            Calculate the perimeter of composite shapes that include sections of a circle            Calculate the area of a circle when radius or diameter is given            Calculate the area of composite shapes that include sections of a circle</p>	<p>Calculate the volume of a prism            Calculate the volume of a cylinder            Compare lengths, areas and volumes using ratio notation            Know circle definitions and properties, including: tangent, arc, sector and segment</p>
<b>Key Objectives / Learning Pathway</b> <b>Excelling</b>	<p>Know circle definitions and properties, including centre, radius, chord, diameter, circumference            Calculate the circumference of a circle when</p>	<p>Calculate the volume of a prism            Calculate the volume of a cylinder            Compare lengths, areas and volumes using</p>	<p>Calculate the arc length of a sector, including calculating exactly with multiples of <math>\pi</math>            Calculate the area of a sector, including</p>

	<p>radius and diameter is given</p> <p>Calculate the perimeter of composite shapes that include sections of a circle</p> <p>Calculate the area of a circle when radius or diameter is given</p> <p>Calculate the area of composite shapes that include sections of a circle</p>	<p>ratio notation</p> <p>Know circle definitions and properties, including: tangent, arc, sector and segment</p>	<p>calculating exactly with multiples of <math>\pi</math></p> <p>Calculate the angle of a sector when the arc length and radius are known</p>
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