

Measuring Shapes: Maths : Year 5 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to measure and calculate the perimeter of regular and irregular polygons.	Children will identify the perimeters of shapes and objects, then measure the sides of polygons and add them together to find their perimeters.	<ul style="list-style-type: none"> • Do children understand the term perimeter? • Can children measure regular polygons and calculate the perimeter? • Can children measure and calculate the perimeter of compound shapes? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C • Plain paper • Challenge Cards (FSD? activity only) • Centimetre square paper (FSD? activity only)
Lesson 2	To be able to use the formula for the area of a rectangle to calculate the rectangle's area.	Children will firstly learn how to find the area of rectilinear shapes by counting squares, then learn how to find the area of rectangles using the formula length x width.	<ul style="list-style-type: none"> • Can children find the area by counting squares? • Can children find the area by using the formula length x width? • Can children find the area of compound shapes? 	<ul style="list-style-type: none"> • Slides • Worksheets 2A/2B/2C/2D • Rulers • Squared paper (FSD? activity only)
Lesson 3	To be able to solve problems involving area and perimeter.	Children will solve problems by finding the area and perimeter of rectilinear shapes. They may also investigate the way in which shapes of with pairs of sides which are factors of the same product will have the same area.	<ul style="list-style-type: none"> • Can children estimate the area of irregular shapes, explaining their reasoning? • Can children solve real-life problems relating to perimeter and area? • Can children estimate the area of a shape accurately? 	<ul style="list-style-type: none"> • Slides • Worksheets 3A/3B/3C • Challenge Cards • Centimetre-squared paper • Metre sticks (FSD? activity only) • Chalk (FSD? activity only) • Trundle wheels (FSD? activity only)
Lesson 4	To be able to estimate the volume of cuboids.	Children will begin to calculate the volume of cuboids either by constructing cuboids of given dimensions using 1cm ³ maths cubes or by visualising the number of 1cm ³ cubes required to make a described cuboid.	<ul style="list-style-type: none"> • Do children know what the term 'volume' means? • Can children make sensible estimates about the volume of a cube or cuboid? • Can children calculate the volume of a cube or cuboid using 1cm³ blocks? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C • 1cm³ blocks • Cuboid Templates (FSD? activity only) • Help Card (FSD? activity only)
Lesson 5	To be able to calculate the volume of a cuboid.	Children will learn to calculate the volume of cuboids using the formula length x width x height. They may then practise this, either by calculating the volumes of cuboids of given dimensions, or by constructing cuboids using nets, then measuring them.	<ul style="list-style-type: none"> • Do children understand what the term 'volume' means? • Can children estimate the volume of a cuboid? • Can children calculate the volume of a cuboid using the formula length x width x height? 	<ul style="list-style-type: none"> • Slides • Worksheet 5A/5B/5C/5D • Cuboid Net Templates (FSD? activity only)