Calculating Compound Shapes: Maths : Year 6 : Autumn Term

PlanBee

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To recognise that shapes with the same area can have different perimeters, and vice versa.	Children will consider the ways in which shapes of different dimensions may have the same area or the same perimeter. They may then investigate how altering the construction of shapes of a given area affects their perimeter.	• Do children know how to find the area and perimeter of a rectangle? • Do children know shapes with the same area can have different perimeters and vice versa? • Can children work systematically to solve problems involving area and perimeter?	• Slides • Worksheet 1A/1B • Question Cards 1A/1B/1C • Challenge Card (FSD? activity only) • Trundle wheels/tape measures (plenary)
Lesson 2	To be able to calculate the perimeter and area of compound shapes.	Children will develop strategies for finding the area, and missing lengths of sides, of rectilinear compound shapes. They may then practise these strategies by calculating and measuring the perimeters and areas of compound shapes.	• Can children find the area and perimeter of compound shapes by counting squares? • Can children find the area of compound shapes? • Can children find the perimeter of compound shapes?	• Slides • Worksheet 2A/2B/2C • Squares and rectangles to draw around (FSD? activity only) • Plain paper (FSD? activity only)
Lesson 3	To be able to calculate the area of triangles and parallelograms.	Children will learn how to find the area of any triangle, then use this information to find the area of parallelograms and more complex compound shapes.	• Can children find the area of triangles? • Can children find the area of parallelograms? • Can children find the area of compound shapes?	• Slides • Worksheet 3A/3B/3C • Tangram Sheet (FSD? activity only)
Lesson 4	To be able to calculate the volume of cubes and cuboids.	Children will use the formula length x width x height to calculate the volume of cuboids or of compound shapes constructed using only cuboids. Some children may explore ways in which cuboids of different dimensions may have the same volume.	• Do children understand the difference between area and volume? • Can children use the formula to work out the volume of cubes and cuboids? • Can children work out the volume of compound shapes?	• Slides • Riddle Cards 4A/4B • Challenge Cards 4A • Volume Cards • Worksheet 4A/4B (FSD? activity only)
Lesson 5	To be able to estimate and compare the volume of cubes and cuboids.	Children will estimate the volumes of cuboids with one missing dimension, then compare the values of volumes given with different units of measurement, e.g. mm³, cm³, m³, km³.	• Can children estimate the volume of cubes and cuboids? • Can children compare the volume of cubes and cuboids? • Can children calculate the volume of cubes and cuboids to check their estimates?	• Slides • Variety of cubes and cuboids (packaging) • Sticky notes • Volume Cards 5A/5B (FSD? activity only) • Worksheet 5A (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different…?' activity within the lesson plan www.planbee.com