Lode Heath School

Mathematics Department

Year 7 Higher

Assignment Title	Unit 9: Perimeter, area and volume	Date set	Summer 1

Summary of Unit 9	Key Words
Calculate the area of shapes including compound shapes Calculate volume of cubes and cuboids Calculate surface area of cubes and cuboids Convert between units of measure.	Area, net, volume, surface area, formula, parallelogram, trapezium, height, base, width, length, substitution, perpendicular, cube, cuboid

Prior Knowledge:

1. Calculate: a) 16 x 3 =   b) 14 x 2 =   c) 6 x 6 x 6 =   d) 8 x 4 x 5 =

2. Find the area: a)   b)

   a) 4cm by 4cm

   b) 12cm by 3cm
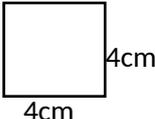
3. Draw any net that would make a cube

LEARNING JOURNEY

	Task Description
	9.1 Triangles, parallelograms and trapeziums Calculate the area of triangles. Calculate the area of parallelograms. Calculate the area of trapeziums.
	9.2 Perimeter and area of compound shapes Calculate the perimeter of shapes made from rectangles and triangles. Calculate the area of shapes made from rectangles and triangles.
	9.3 Properties of 3D solids Identify nets of different 3D shapes. Know the properties of 3D shapes.
	9.4 Surface area Calculate the surface area of a cube. Calculate the surface area of a cuboid.
	9.5 Volume Calculate the volume of a cube. Calculate the volume of a cuboid. Convert between different units of volume: cm³, ml and litres.
	9.6 STEM: Measures of area and volume Convert between metric measures for area and volume.

Assignment Title	Unit 10: Equations	Date set	Summer 2

Summary of Unit 10	Key Words
Solve one-step equations, write and solve two-step equations, solve equations where the unknown appears on both sides.	Equations, inverse, opposite, operation, solve, unknown, satisfy

Prior Knowledge:

1. Filling in the missing numbers to make the calculations correct:

   a) 4 x____ = 28   b) 21 ÷ ___ = 3   c) 10 - ___ = 4

2. Here is a square with perimeter 48cm.

a) Find the side length of the square.

b) Hence or otherwise, find the area of the square.

Perimeter = 48cm
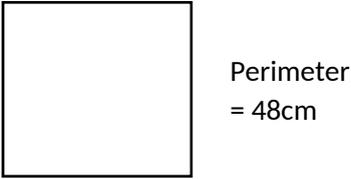
LEARNING JOURNEY

	Task Description
	10.1 Solving one-step equations Write and solve simple equations. Solve problems using equations.
	10.2 Solving two-step equations Write and solve two-step equations. Write and solve equations that have brackets.
	10.3 More complex equations Write and solve equations with letters on both sides.
	10.4 Trial and improvement Solve equations that include x^2 and x^3 Use trial and improvement to find solutions to 1 decimal place.