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| **F Unit 8: Perimeter, area and volume** | **Road Map** |
| In this unit you will learn about number. The aims are as follows:**LG1**: Knowledge**LG2**: Application**LG3**: Skills | Assessment Grades |  |  |
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| **Themes** | **Learning Goals/Outcomes/Content** |  |  |  |
| 8a Perimeter and area | Indicate given values on a scale, including decimal value;  |  |  |  |
| Know that measurements using real numbers depend upon the choice of unit;  |  |  |  |
| Convert between units of measure within one system, including time;  |  |  |  |
| Convert metric units to metric units;  |  |  |  |
| Make sensible estimates of a range of measures in everyday settings;  |  |  |  |
| Measure shapes to find perimeters and areas using a range of scales;  |  |  |  |
| Find the perimeter of rectangles and triangles;  |  |  |  |
| Find the perimeter of parallelograms and trapezia;  |  |  |  |
| Find the perimeter of compound shapes;  |  |  |  |
| Recall and use the formulae for the area of a triangle and rectangle;  |  |  |  |
| Find the area of a rectangle and triangle;  |  |  |  |
| Find the area of a trapezium and recall the formula;  |  |  |  |
| Find the area of a parallelogram;  |  |  |  |
| Calculate areas and perimeters of compound shapes made from triangles and rectangles;  |  |  |  |
| Estimate surface areas by rounding measurements to 1 significant figure; |  |  |  |
| Find the surface area of a prism;  |  |  |  |
| Find surface area using rectangles and triangles;  |  |  |  |
| Convert between metric area measures.  |  |  |  |

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| 3d forms and volume | Identify and name common solids: cube, cuboid, cylinder, prism, pyramid, sphere and cone;  |  |  |  |
| Sketch nets of cuboids and prisms; |  |  |  |
| Recall and use the formula for the volume of a cuboid;  |  |  |  |
| Find the volume of a prism, including a triangular prism, cube and cuboid;  |  |  |  |
| Calculate volumes of right prisms and shapes made from cubes and cuboids;  |  |  |  |
| Estimate volumes etc by rounding measurements to 1 significant figure;  |  |  |  |
| Convert between metric volume measures; |  |  |  |
| Convert between metric measures of volume and capacity e.g. 1ml = 1cm3. |  |  |  |
| Calculate volumes of right prisms and shapes made from cubes and cuboids;  |  |  |  |

**Links:**

LG1: You will learn processes that will enable you to find areas, perimeters, and volumes of a range of 2d and 3d shapes, and to work with different units of measure.

LG2: You will apply the processes that you learn, to select and use appropriate methods for the shape given, and will be able to deal with mixed units.

LG3: You will use your problem-solving skills and mastery of area, perimeter and volume to solve complex problems including those that link money and percentages with area or volume.