Knowledge Organiser

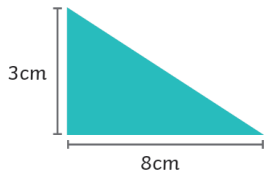
Year 6 | Measurement

There are many jobs in which you have to calculate area, perimeter and volume: architects, engineers, builders, designers to name a few. They also have to work with a variety of measures, some of which you have to convert from imperial to metric or vice versa. Even at home, you would have to calculate the area of your living room so you know how much carpet is needed to fit the floor.

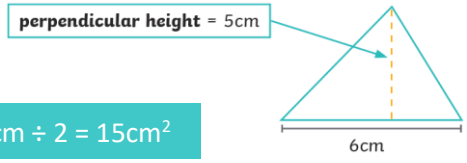
Builds from Year 5:	This year:	Leads to Key Stage 3:
Calculate and estimate area. Convert between units of length. Volume and capacity.	Convert between standard units. Convert between miles and kilometres. Use formulae for area and volume of shapes.	Calculate and solve problems involving perimeters (including circles), areas of circles and composite shapes.

Area

base x perpendicular height ÷ 2 = area of a triangle



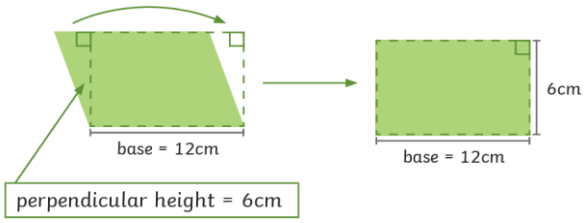
3cm x 8cm ÷ 2 = 12cm²



6cm x 5cm ÷ 2 = 15cm²

base x perpendicular height = area of a parallelogram

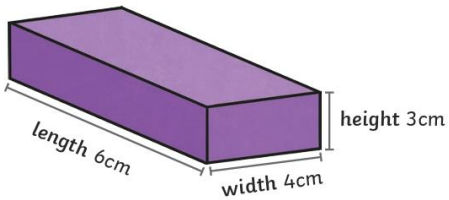
A parallelogram can be transformed into a rectangle.



12cm x 6cm = 72cm²

Volume

length x width x height = volume of a cuboid

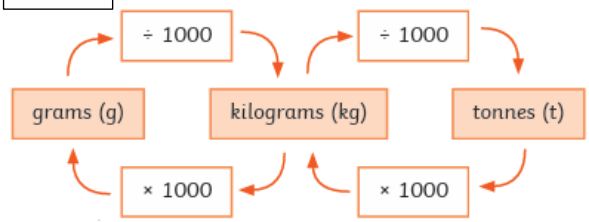


Volume is measured in **cubed units**: cm³ m³ km³

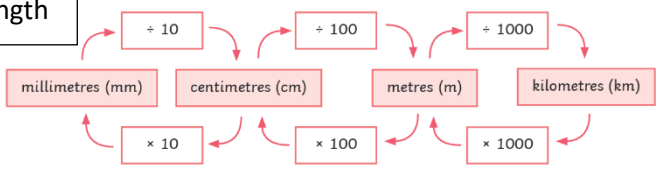
6cm x 4cm x 3cm = 72cm³

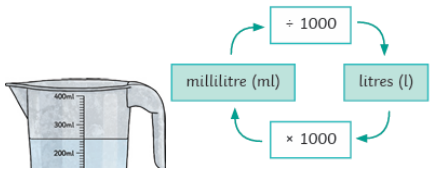
Converting Units

Mass



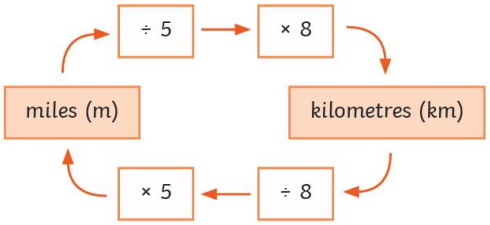
Length





Capacity

Miles to Kilometres



5 miles ≈ 8 kilometres

≈ means approximately equal to

Key Vocabulary

length width area perimeter volume units squared (m²) units cubed (cm³) formula cuboid perpendicular convert units of measure metric imperial