Castlefield School- Maths

Topic: Units of measure	Year: Six	Theme: Measurement

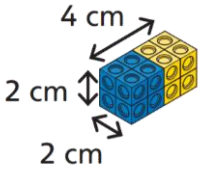
Key concepts and questions

What is approximate equivalence between imperial and metric measures?

Length	Mass	Capacity
1 inch ≈ 2.5cm 1 foot ≈ 30cm 1 mile ≈ 1.6km 5 miles ≈ 8km	16 ounces ≈1 pound 1 ounce ≈25g 1 pound ≈450g 2.2 pounds ≈ 1kg	8 pints ≈1 gallon 1 gallon ≈4.5 litres 1 pint ≈570ml

How is volume calculated?

Volume of a cuboid=length x width x height



$2 \times 2 \times 4 = 16\ cm^3$

Will shapes with the same area also have the same perimeter?

This is not true. In this example, both shapes have an area of 36cm² but the perimeter of Shape A is 26cm whilst the perimeter of shape B is 24cm.

Representations

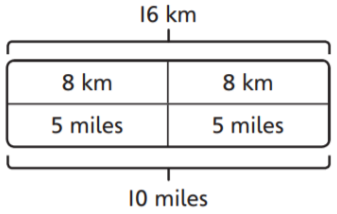
Place value chart

Can be used when x and ÷ by 10, 100 or 1000 to convert. 40,500g=40.5kg

TTh	Th	H	T	O	•	Tth	Hth
4	0	5	0	0	•		
			4	0	•	5	

Bar model

Help with representing equivalence and converting between measures, 16km ≈ 10 miles.



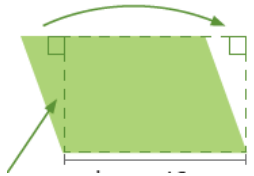
Key Vocabulary

area	perimeter	capacity	volume
estimate	approximate	equivalence	parallelogram
Metric	**Weight**: Gram (g), kilogram (kg). **Length**: millimetre (mm), centimetre (cm), metre (m), kilometre (km). **Volume**: millilitre (ml), litre (l).		
Imperial	**Weight**: Pound, ounce, stone. **Length**: Inch, foot, yard. **Volume**: pint, gallon.		
cm^3 and m^3	A litre is equivalent to 1000 cm^3 and 1 millilitre is equivalent to 1 cm^3.		

Making connections

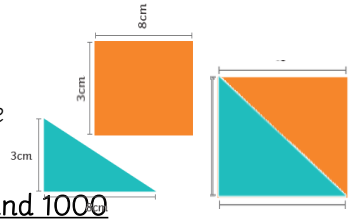
Area of parallelograms and rectangles

This parallelogram can be transformed into a rectangle. You find area exactly as you would with a rectangle by doing base length x height.



Area of parallelograms and triangles

All triangles are half of a parallelogram. Multiply height by base length then divide by two.



Multiplying and dividing by 10, 100 and 1000