VOLUME

MTH 3 11- b

Having investigated different routes to a solution, I can find the area of compound 2D shapes and the volume of compound 3D objects, applying my knowledge to solve practical problems.

Pupils should be able to:

- Understand volume in terms of the filling up of space
- Know the standard units of weight (g, kg) and volume (ml, l, cm^3, m^3) and the relationships between them.
- Know that volume = l x b x h for a cuboid
- Be aware of common Imperial units (pint, gallon, ounce, pound)
- Calculate the volume of any cuboid.
- Estimate volumes of solids or spaces, e.g. amount of air in the classroom.

PUPILS SHOULD COMPLETE THE FOLLOWING EXERCISE AND ASSESS THEIR PROGRESS BY TICKING ONE OF THE OPTIONS FOR EACH TOPIC IN THE TABLE BELOW

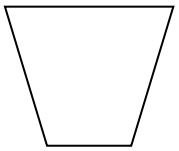
	DEVELOPING	CONSOLIDATING	SECURE
Concept of volume (QUESTION 1)			
Units (QUESTION 2)			
Volume of cuboids using formula (QUESTIONS 4)			
Estimating volume (QUESTION 4)			

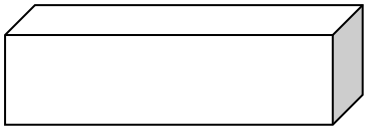
mymaths library / shape / volume and surface area / volume of cuboids

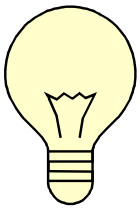
SELF EVALUATION EXERCISE DATE DUE_____

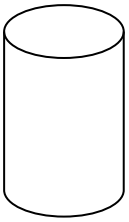
1. Which of these shapes has volume?

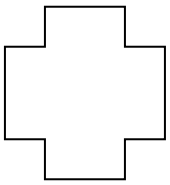
a) 

b) 

c) 

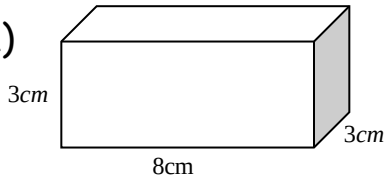
d) 

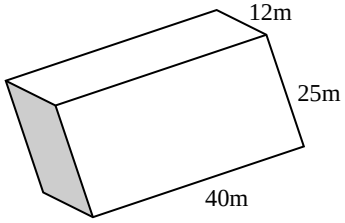
e) 

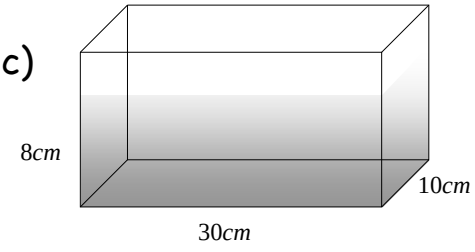
f) 

2. Convert these to litres: a) 2000cm ^{3} b) 450cm ^{3} c) 3950ml

3. Calculate the volumes of these cuboids:

a) 

b) 

c) 

d) A cuboid measuring 3.3m by 4.5m by 9m

4. Estimate the volume of your maths classroom in cubic meters.