

Practical
FROM PAGE 199 IN THE PUPIL RESOURCE


- 1 a Weigh the empty glass jug. *Weight* _____
- b Put 1 L of water into the jug.
- c Weigh the jug with the water in it. *Weight* _____
- d What does 1 L of water weigh? *Weight in c – weight in a =* _____
- e What is the area of the base of your ice-cream container? *Area = l × b* _____
- f Work out to what depth you must fill your ice-cream container to have 1000 cm³ of water in it.
1000 ÷ area of base = _____ (*depth of water needed*)
- Fill your ice-cream container to the depth you worked out so that it has 1000 cm³ of water.
 Pour the 1000 cm³ of water into the glass jug and weigh it. *Weight* _____
- How does this compare with your answer in **part d**? _____

- 2 Work out the approximate mass of water in the following by measuring the dimensions (length, width and height) and then working out the volume in cm³ or m³. Convert each to L and then to kg or tonne.
- a your school pool if you have one (you may need to use an average depth)
- b any fish tanks or similar at your home or school
- c an ice-cream container

- 3 Fill some containers such as a bottle, mug or similar with water.
 Take a guess at the volume or capacity of each container in either cm³ or L.
 One by one pour the water from each container into an ice-cream container.
 For each one estimate how many cm deep the water is.

You could make this into a game by taking points for the closest estimate for each container.

Estimate the volume of the water by using the dimensions of the base of the ice-cream container.
 Use this to estimate the capacity of the bottle, mug, etc in mL or L.

Volume of water = area of base of ice-cream container × depth of water

- 4 What is the volume, in m³ and in L, of a tonne of water?