

CUPS AND CAPACITY

(1) You will need a collection of cups, either disposable cups like the ones shown or any mugs and cups you have available. You will also need some water and a measuring jug or cylinder.



Which cup would you fill with water if you are really thirsty and want a lot to drink?

Arrange your cups in order of size from the one that holds the smallest amount of liquid (the smallest capacity) to the one that holds the most.

Number your cups 1 to 8, number 1 for the smallest capacity and 8 for the biggest.

How many cupsful from cup 1 would it take to fill cup 8? How would you test this without using a measuring jug? Now check this answer. Was your estimate about right? If not can you explain how you made your estimate and why it was wrong?

How many cupsful from cup 4 will fill cup 8?

(2) Now use your measuring jug to find the capacity of cup 1 and cup 8 in millilitres.



Use this information to help you **to estimate** the capacities of cups 2, 3, 4, 5, 6 and 7 in millilitres. Write down your estimates.

Now check by filling cups 2, 3, 4, 5, 6 and 7 in turn with water and then pouring the water into the measuring jug and reading the number of millilitres from the scale.

HELP

If you have a sink in your classroom, or some sand, and can experiment for yourself, it would be ideal to work on this activity practically in pairs or small groups.

With a partner, use 2 cups (perhaps you could each bring a cup to class for this activity). Answer the question about how many of the smaller cup fill the bigger one by pouring the water (or sand) from cup to cup, or from cup to measuring jug. Then do the experiment with more cups.

NEXT

Find a much smaller container, for example a teaspoon or a 5 millilitre medicine spoon and estimate how many of the smaller container it would take to fill the bigger container.

CAPACITY

Under each cylinder, on the **top line**, write down the number of millilitres of liquid shown in the cylinder. On the **second line** write the number of litres, for example the first one is 500 millilitres which is 0.5 litres.

