

Estimating Capacity

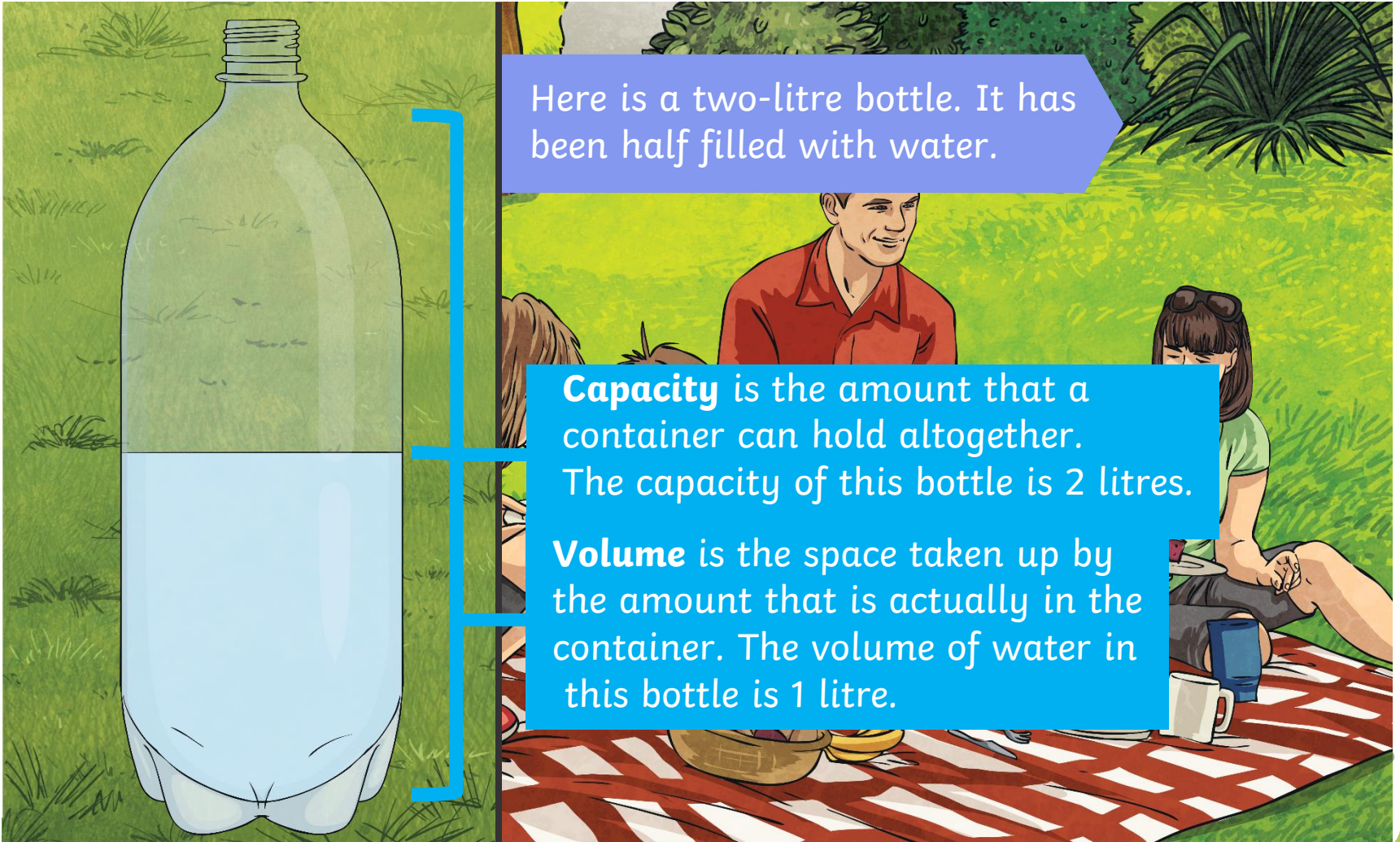
twinkl

WALT estimate capacity.

WILF:

- Know we use capacity to measure liquids, rather than cubic cm.
- Understand that capacity can be measured in millilitres and litres
- Use the amount of liquid in a container to estimate its capacity.
- Develop your understanding of the amount of liquid in 250ml, 500ml and one litre and use this to improve the accuracy of my estimates.

Capacity versus Volume



Here is a two-litre bottle. It has been half filled with water.

Capacity is the amount that a container can hold altogether. The capacity of this bottle is 2 litres.

Volume is the space taken up by the amount that is actually in the container. The volume of water in this bottle is 1 litre.

Match the Capacity



Look at these containers (not drawn to scale). How much liquid do you think each container would be able to hold? Match each container with its capacity. Some of the measurements are given in litres; others are given in millilitres.



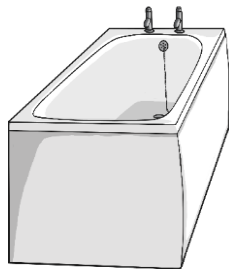
Teapot



Test tube



Fishbowl



Bathtub



Bucket

3500ml

50ml

150l

9.5l

1.2l

Match the Capacity



Look at these containers (not drawn to scale). How much liquid do you think each container would be able to hold? Match each container with its capacity. Some of the measurements are given in litres; others are given in millilitres.



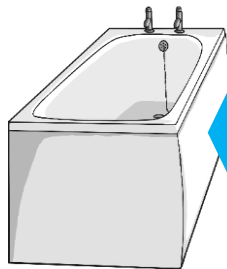
3500ml



50ml



1.2l



150l



9.5l

How Much Is It?



Measure out 250ml of water and pour it into a container on your table. Then, pour it into other containers of different shapes and sizes and see what you notice about the water.

What do you notice when you pour 250ml into your widest container?

Repeat this with 500ml and 1l. What do you notice?



Did the amount of water change? Why does it look like there are different amounts of water in the containers?

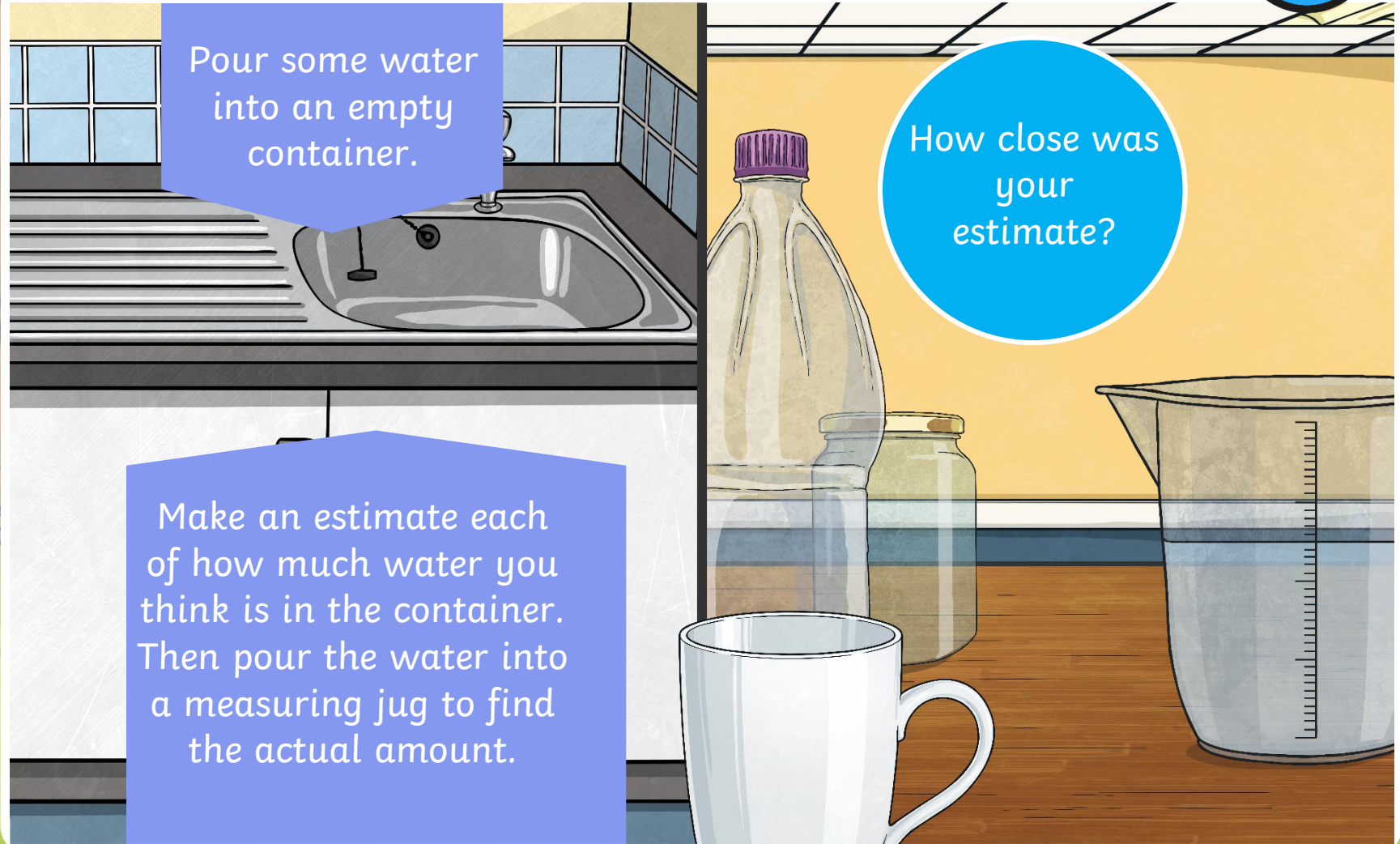
How Much Is It?



Pour some water into an empty container.

Make an estimate each of how much water you think is in the container. Then pour the water into a measuring jug to find the actual amount.

How close was your estimate?

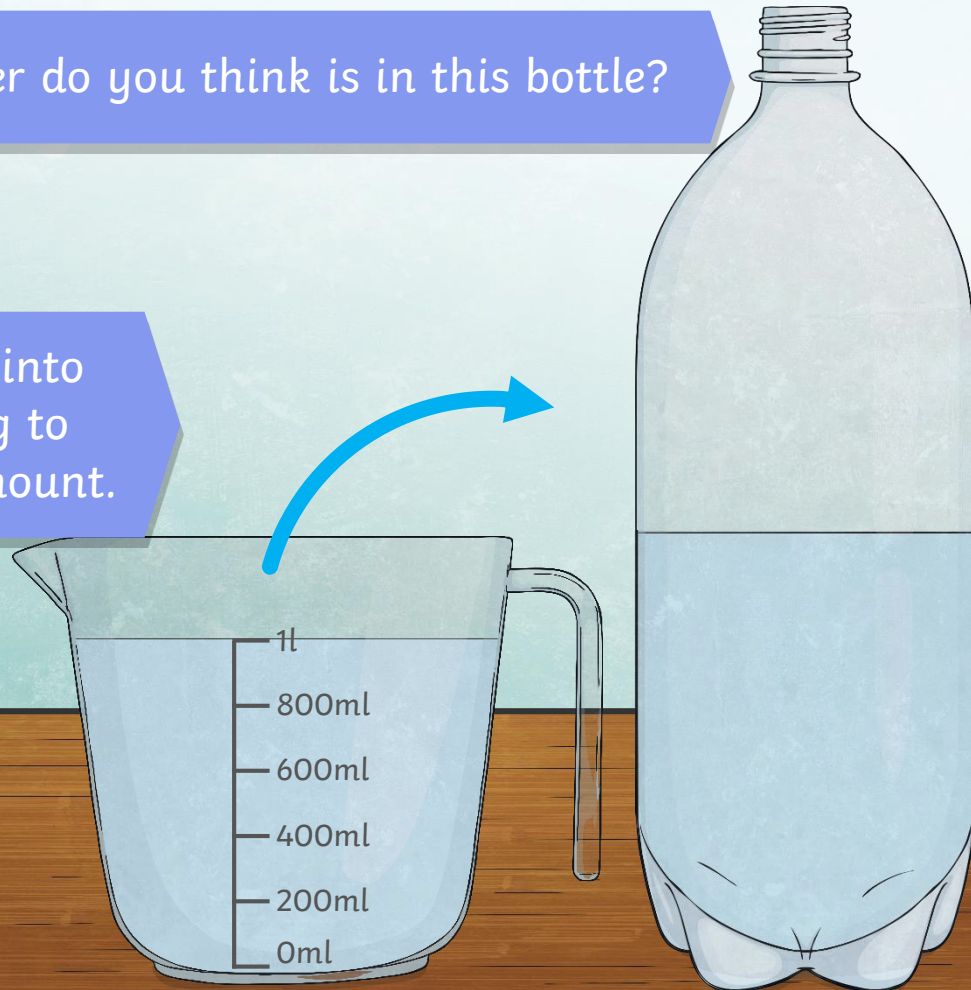


How to Estimate Capacity

How much water do you think is in this bottle?

Pour the water into a measuring jug to measure the amount.

Pour the water back into the bottle.




How to Estimate Capacity

We defined capacity as **the amount that a container can hold altogether**. We normally use ml or l to measure liquid capacity.

How can we estimate the capacity of this bottle?

The capacity of the bottle is 2l.

How to Estimate Capacity



We defined capacity as **the amount that a container can hold altogether**.

There is 1l of water in the bottle. This is approximately half of the amount that the bottle could hold altogether. We can double this amount to estimate the capacity of the container. $1\text{l} \times 2 = 2\text{l}$

The capacity of the bottle is 2l.

How to Estimate Capacity



How to Estimate Capacity

The capacity of the bottle is 750ml.

Let's estimate the capacity of this bottle.

750ml

This is approximately a third of the amount that the bottle could hold altogether.

If 250ml is one third of the capacity, what is the capacity of the whole bottle?

$$250\text{ml} \times 3 = 750\text{ml}$$

How Much in One Jug?



These two jugs have a total capacity of 8l. Estimate the capacity in litres of each jug.



Today's Activity

Select and complete sheet 1, 2 or 3
based on how confident you feel.

