Diving into Mastery

Measure Capacity in Millilitres and Litres

Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:

Diving

Deeper

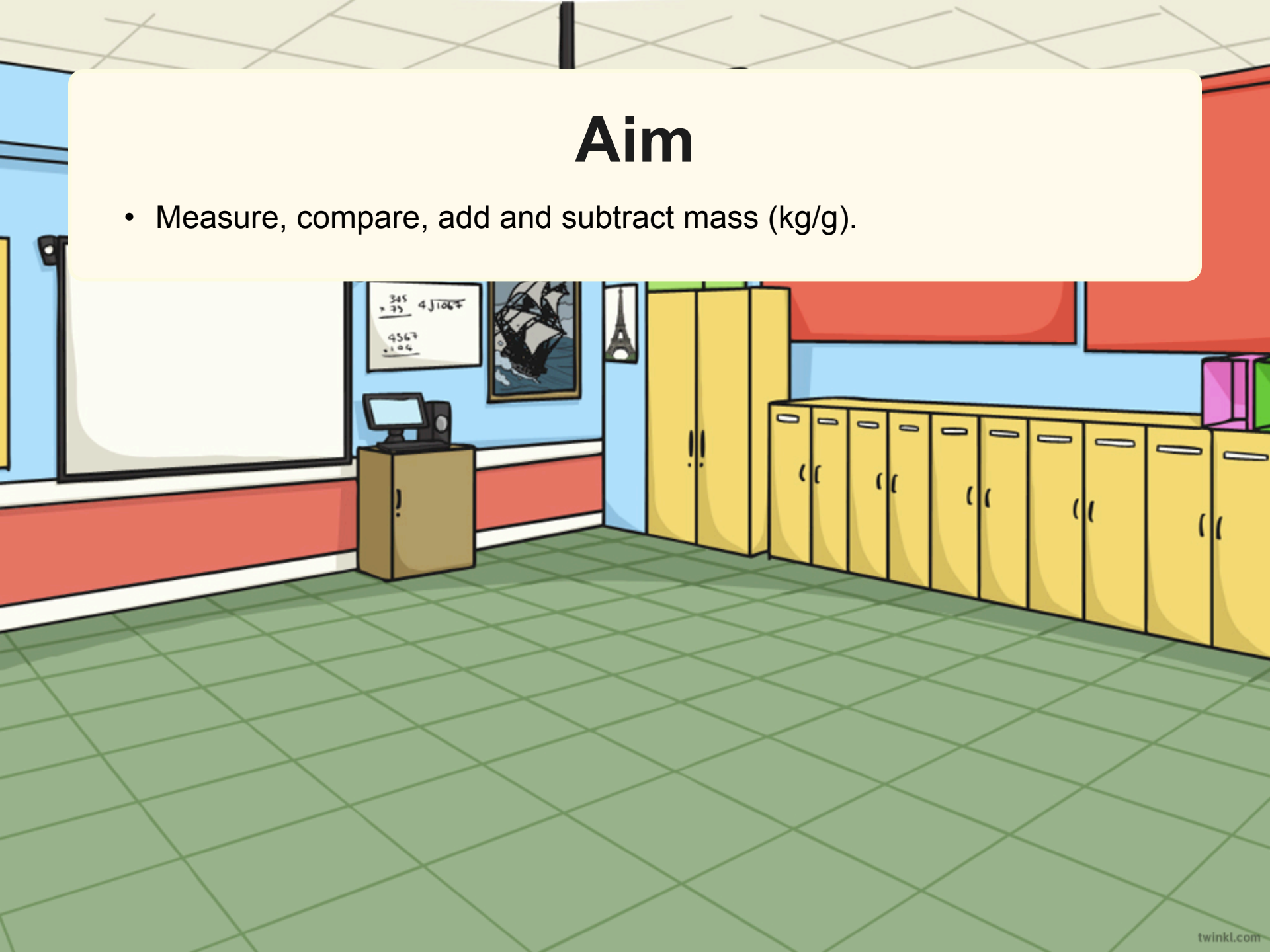
Deepest

These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

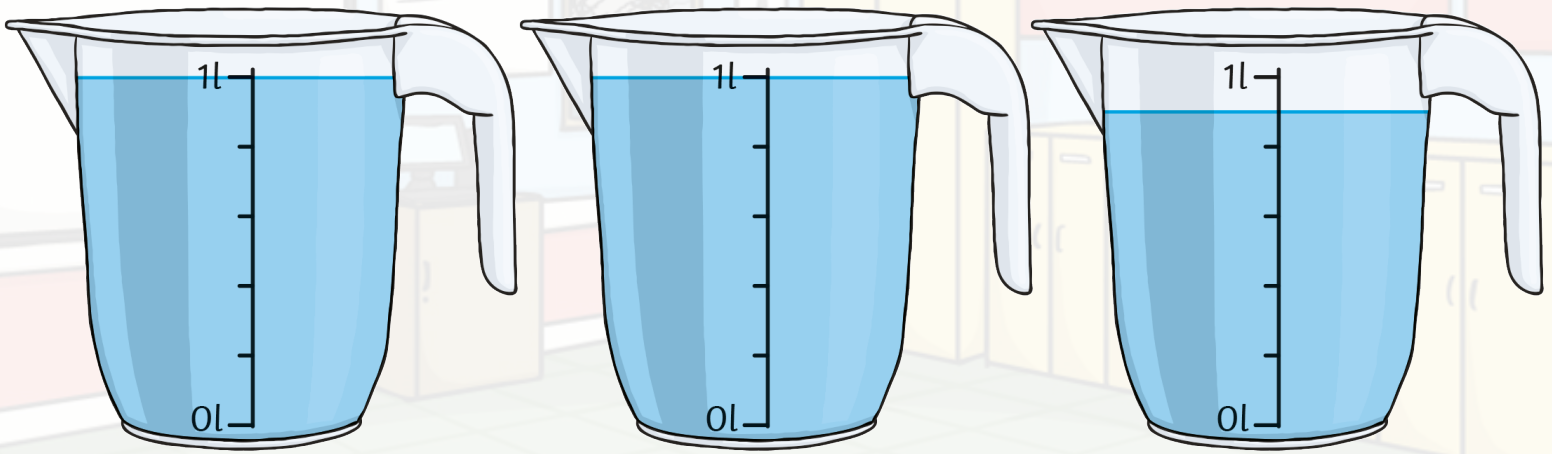
These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

Aim

- Measure, compare, add and subtract mass (kg/g).



Intervals on Scales



What is each interval worth?

What is the capacity of one of the containers?

What volume of liquid is in the part-filled container?

What is the total volume of liquid?

Measure Capacity in Millilitres and Litres

Diving

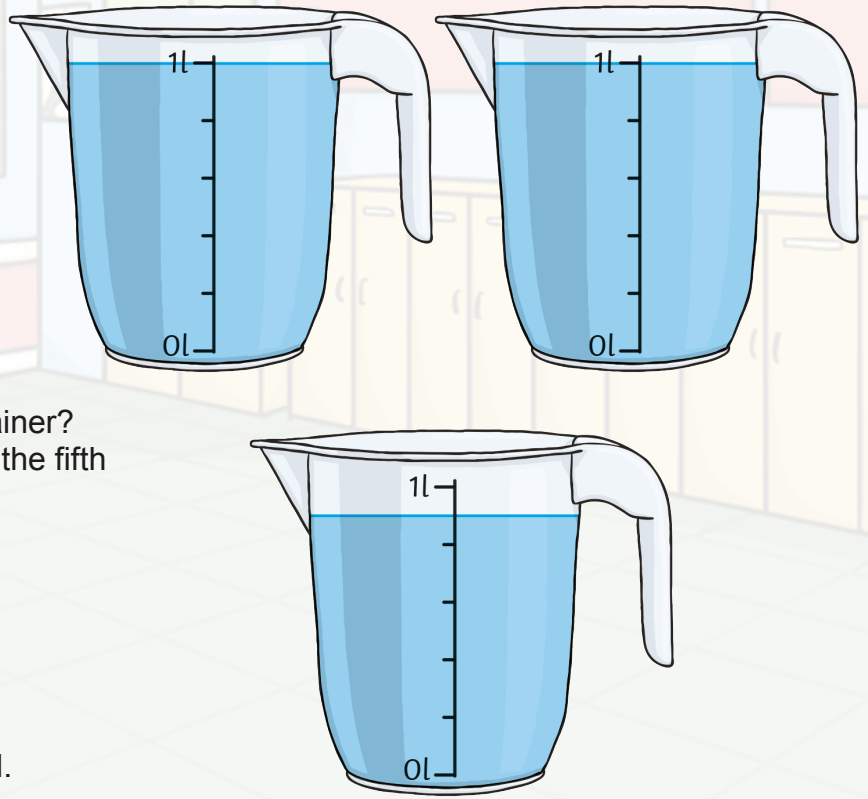
Intervals on Scales

What is each interval worth?
There are 5 intervals between 0 and 1l.
1000 ÷ 5 = 200
Each interval is worth 200ml.

What is the capacity of one of the containers?
The capacity of the container is the maximum amount of liquid it could hold.
The capacity of this container is 1l.

What volume of liquid is in the part-filled container?
The liquid covers four full intervals and half of the fifth interval.
4 × 200 = 800
½ of 200 = 100
800 + 100 = 900.
The volume of liquid is 900ml.

What is the total volume of liquid?
There are two full jugs and one jug with 900ml.
The total volume of liquid is 2l 900ml.

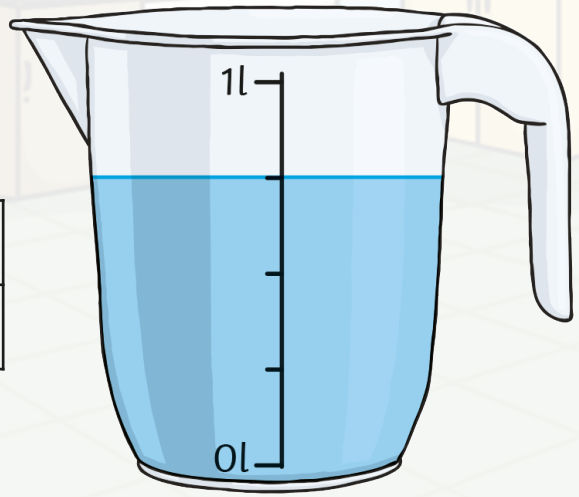


Who Used More?

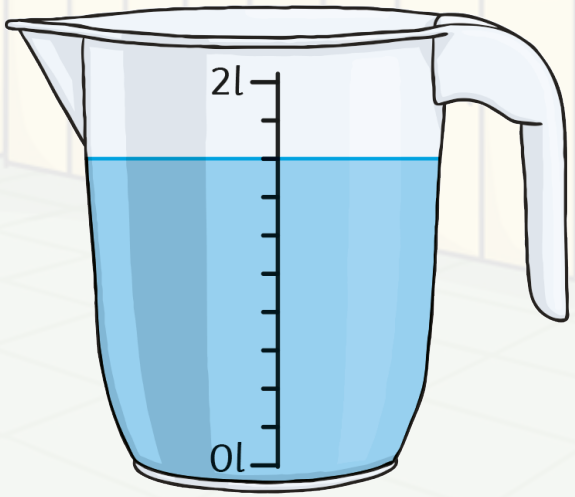
Verity and Joseph have been using jugs of water to fill a bowl.
They kept a tally chart of full jugs that they used.

Verity	𝍸 ||
Joseph	|||

Joseph says,
“I put this part-filled jug into the bowl.”



Verity says,
“I also put this part-filled jug into the bowl.”



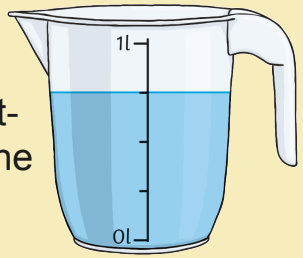
Who put the least amount of water into the bowl?

Who Used More?

Verity and Joseph have been using jugs of water to fill a bowl.
They kept a tally chart of full jugs that they used.

Verity	𝍸 ||	**Verity put in seven full jugs of 1l. That's 7l.**
Joseph	|||	**Joseph put in three full jugs of 2l. That's 6l.**

Verity says, "I put this part-filled jug into the bowl."



Each interval is 250ml. (1000 ÷ 4 = 250)
The liquid covers three intervals.
3 × 250 = 750
In total, Verity put in 7l 750ml.

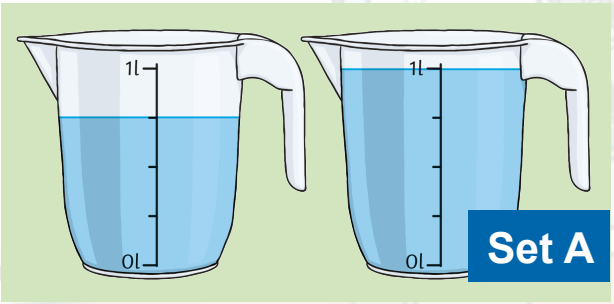
Joseph says, "I also put this part-filled jug into the bowl."

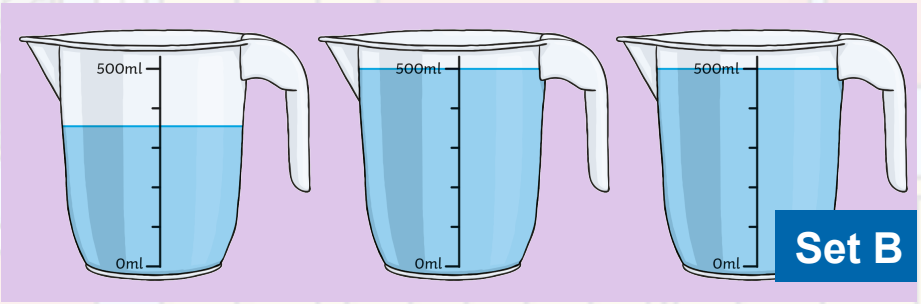
Each interval is 200ml. (2000 ÷ 10 = 200)
The liquid covers 8 intervals.
8 × 200 = 1600 or 1l 600ml
In total, Joseph put in 7l 600ml.

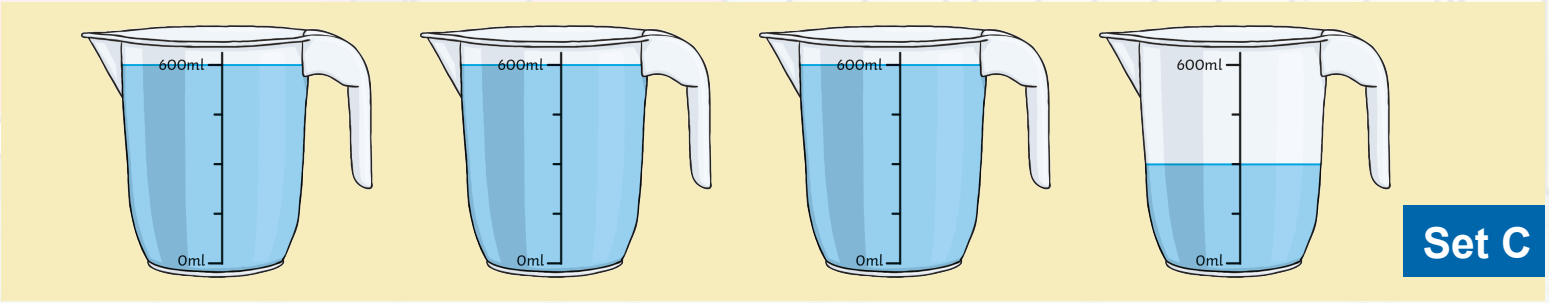
Who put the least amount of water into the bowl? **Joseph put in less water than Verity.**

Work It Out!

Which set of containers is each child describing?







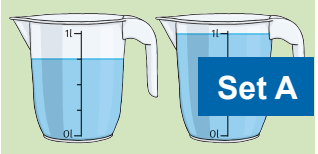
Julie says, “Combined, the containers have a total capacity of less than 2l.”

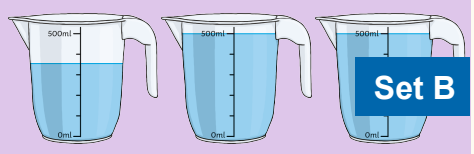
Andrew says, “The volume of my containers is greater than Julie’s but less than 2l.”

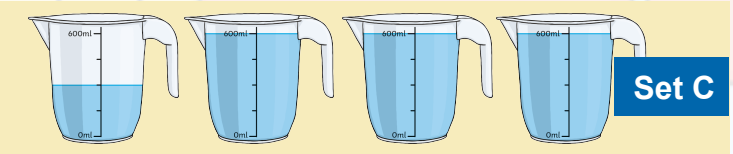
How could you describe the remaining set?

Work It Out!

Which set of containers is each child describing?







Julie says, “Combined, the containers have a total capacity of less than 2l.”

Set A has a total capacity of 2l. (1l + 1l)

Set B has a total capacity of 1l 500ml. (500ml + 500ml + 500ml)

Set C has a total capacity of 2l 400ml. (600ml + 600ml + 600ml + 600ml)

Set B has a total capacity less than 2l.

Julie is describing Set B.

Andrew says, “The volume of my containers is greater than Julie’s but less than 2l.”

Set A has a volume of 1l 750ml. (1l + 750ml)

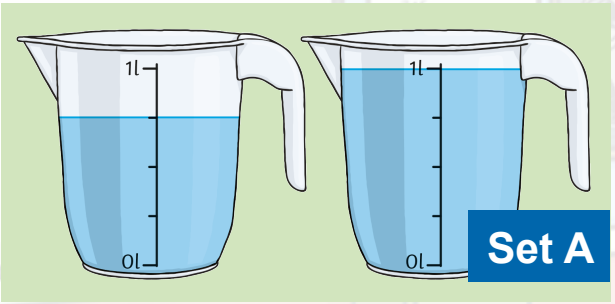
Set B has a volume of 1l 350ml. (500ml + 500ml + 350ml)

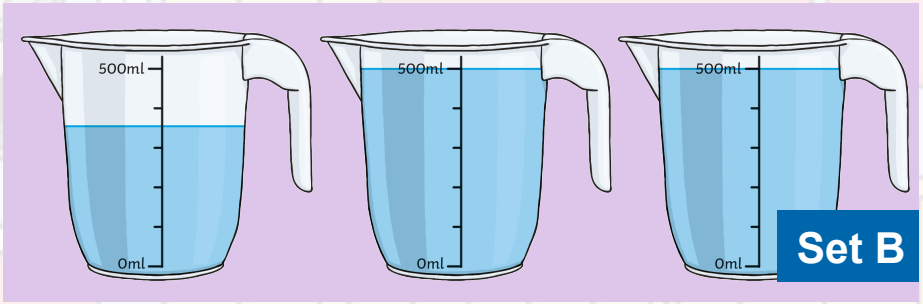
Set C has a volume of 2l 100ml. (600ml + 600ml + 600ml + 300ml)

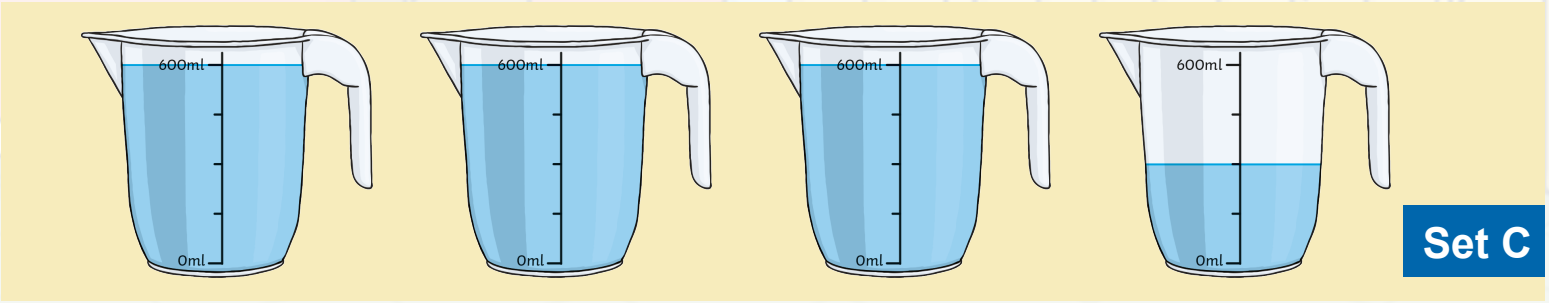
Andrew is describing Set A.

Work It Out!

How could you describe the remaining set?







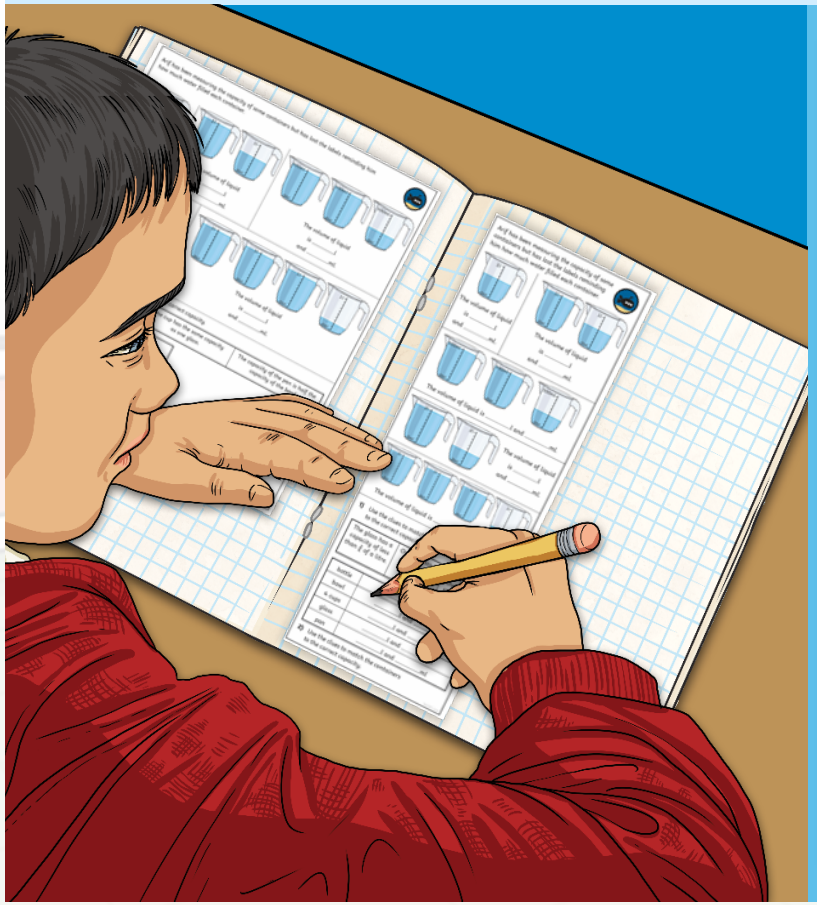
There are lots of ways to describe Set C:

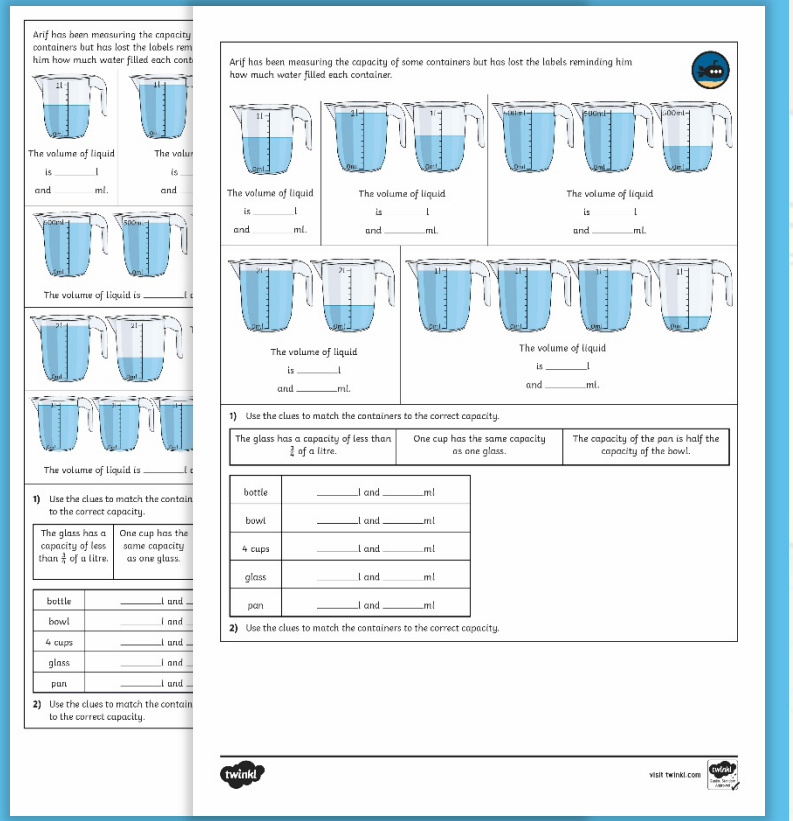
Set C has a total volume of more than 2 litres.

The total capacity of Set C is 2l 400ml.

Measure Capacity in Millilitres and Litres

Dive in by completing your own activity!





Arif has been measuring the capacity of some containers but has lost the labels reminding him how much water filled each container.

The volume of liquid is _____ l and _____ ml.

1) Use the clues to match the containers to the correct capacity.

The glass has a capacity of less than $\frac{1}{2}$ of a litre.	One cup has the same capacity as one glass.	The capacity of the pan is half the capacity of the bowl.

bottle	_____ l and _____ ml
bowl	_____ l and _____ ml
4 cups	_____ l and _____ ml
glass	_____ l and _____ ml
pan	_____ l and _____ ml

2) Use the clues to match the containers to the correct capacity.

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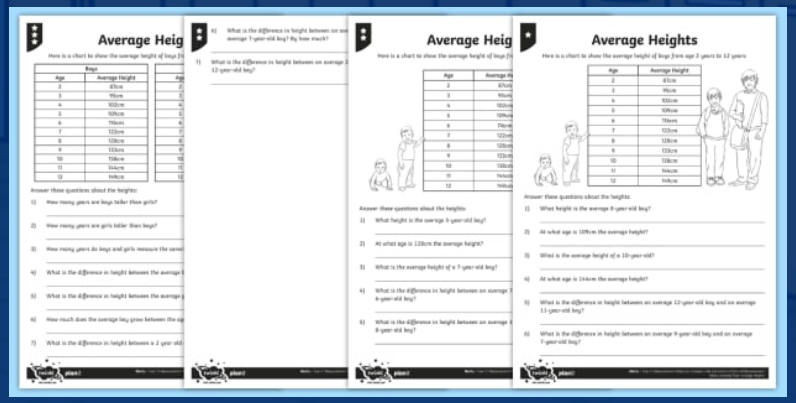

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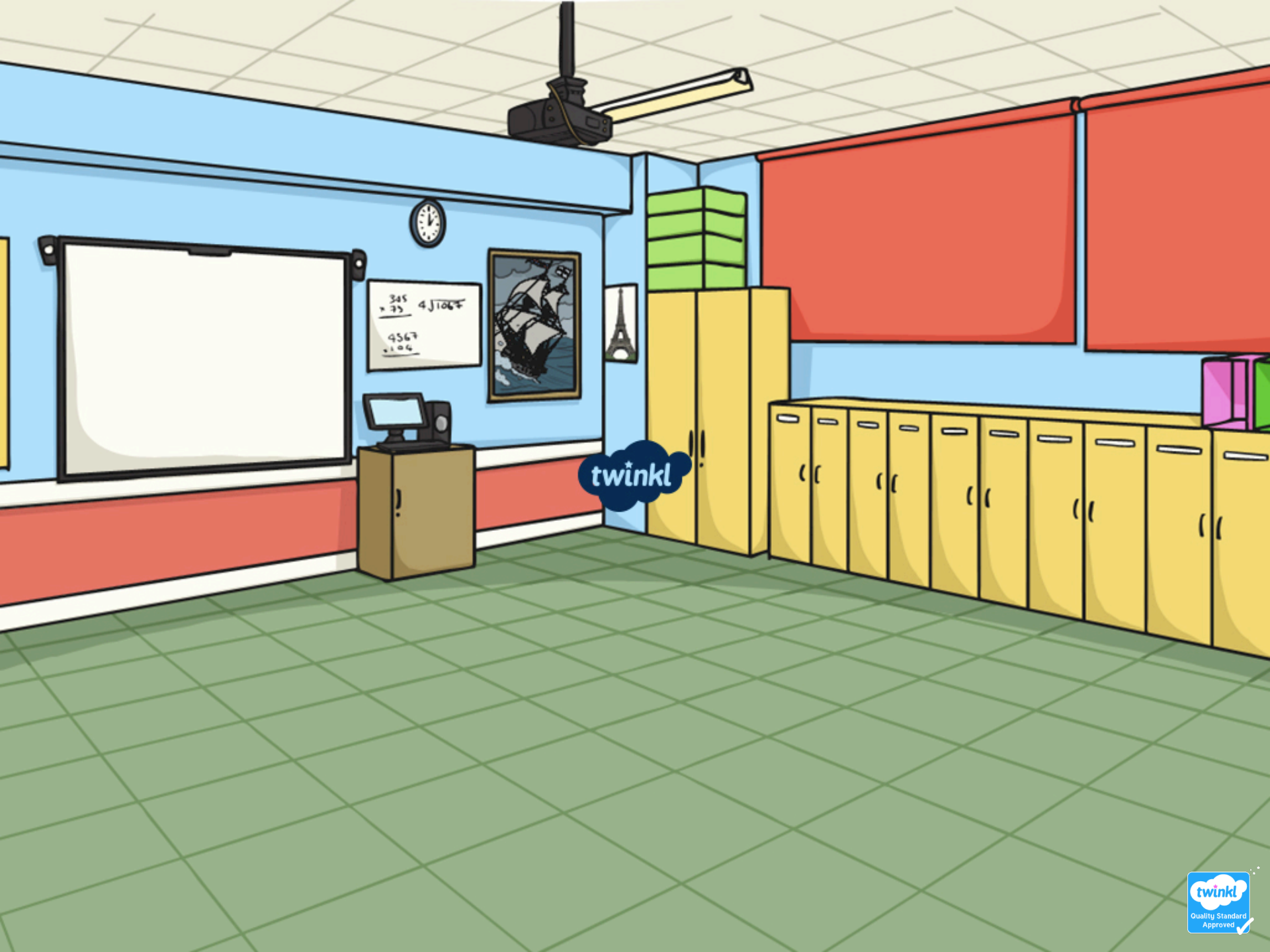
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