



Makes Maths Fun

Level 1

Volume & Capacity

Bloomsmath is a comprehensive mathematics program which provides a fun way for every student to be learning to the best of their ability.

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Makes Maths Fun

Also Available in the Level 1 Program

Whole Number
Addition
Subtraction
Multiplication & Division
Fractions & Decimals
Probability
Patterns & Algebra
Data
Length
Area
Mass
Time
3D Shape
2D shape
Position

Volume & Capacity

Level 1 is designed for students in their first year at school. The Volume & Capacity strand allows students to order and read the volume & capacity of containers.

Knowledge: Students are given a number of containers with varying amounts of liquid in each and must label the containers as full, half full and empty.



Students who demonstrate proficiency in this activity move on to Comprehension.



Students stop here as they require additional teacher support to master this activity.

Comprehension: Students are given a large number of containers and must colour each to represent the volume requested which changes between empty, half full or full.



Students who demonstrate proficiency in this activity move on to Application.



Students stop here if time has run out or they require additional support with this activity.

Application: Students are given jugs and beakers and must read the markings on the side of each to be able to record the volume in milliliters contained in each vessel.



Students who demonstrate proficiency in this activity move on to Analysis.



Students stop here if time has run out or they require additional support with this activity.

Analysis: Students are given empty jugs and beakers and must use the marking on the side of each container to colour in each to the volume requested.



Students who demonstrate proficiency in this activity move on to Synthesis.



Students stop here if time has run out or they require additional support with this activity.

Synthesis: Students are given a random assortment of vessels and must record both the volume of liquid shown and the total capacity in milliliters that the container can hold.

Evaluation: Suggested questions and activities provide a starting point for discussions related to Volume & Capacity such as what happens when volume exceeds capacity.



Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.



All students should participate in the Evaluation discussion to encourage the use of mathematical language, logical reasoning and reflection on that which they have completed.

Name: _____

Glass Half Full Or Half Empty

Mark the containers as full (1), half full (2) and empty (3).

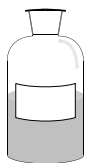
1.

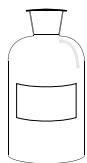


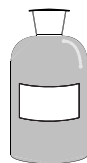




2.







3.







4.







5.







6.







Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

Volume & Capacity - Level 1 - Students will order and read the volume & capacity of containers.



Let's Try This Again

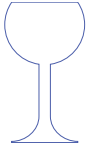






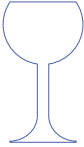




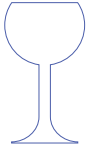










Progress To Comprehension

Name: _____

Fill The Containers

Fill the container to empty, half or full as shown.

- | | | | | | | | | |
|----|---|-------|-----|---|-------|-----|---|-------|
| 1. |  | Full | 8. |  | Half | 15. |  | Full |
| 2. |  | Half | 9. |  | Half | 16. |  | Empty |
| 3. |  | Empty | 10. |  | Full | 17. |  | Half |
| 4. |  | Half | 11. |  | Empty | 18. |  | Empty |
| 5. |  | Empty | 12. |  | Half | 19. |  | Full |
| 6. |  | Full | 13. |  | Empty | 20. |  | Empty |
| 7. |  | Half | 14. |  | Full | 21. |  | Full |



Let's Try This Again



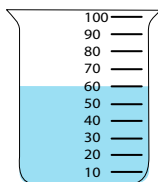
Progress To Application

Name: _____

Reading The Volume

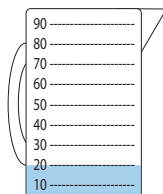
Use the markings on each container to read how much is in it.

1.



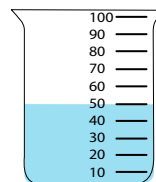
____ mls

6.



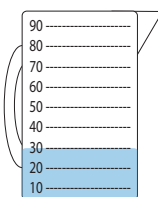
____ mls

11.



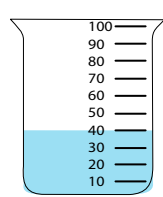
____ mls

2.



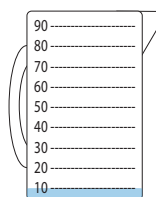
____ mls

7.



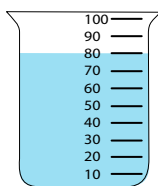
____ mls

12.



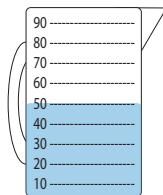
____ mls

3.



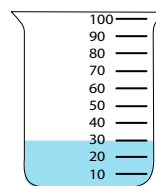
____ mls

8.



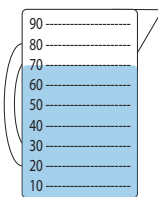
____ mls

13.



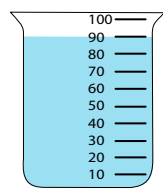
____ mls

4.



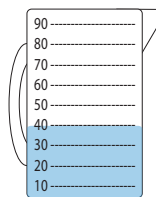
____ mls

9.



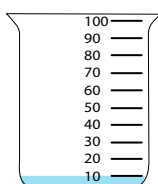
____ mls

14.



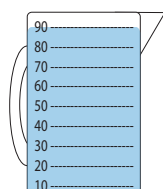
____ mls

5.



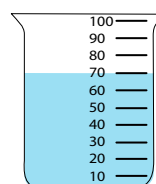
____ mls

10.



____ mls

15.



____ mls

Volume & Capacity - Level 1 - Students will order and read the volume & capacity of containers.

Knowledge

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Let's Try This Again



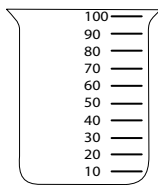
Progress To Analysis

Name: _____

Filling Containers

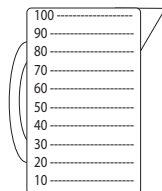
Fill each container to the given amount.

1.



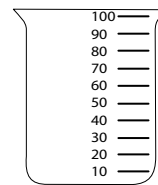
30mls

6.



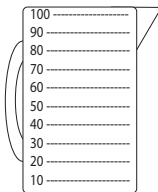
80mls

11.



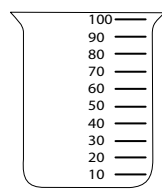
70mls

2.



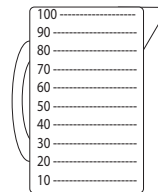
10mls

7.



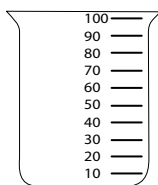
20mls

12.



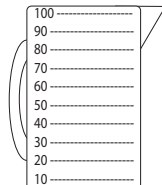
50mls

3.



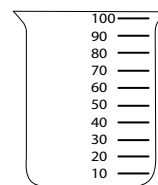
100mls

8.



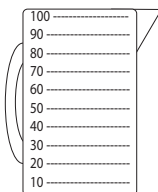
40mls

13.



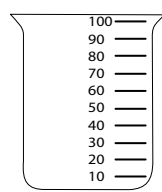
0mls

4.



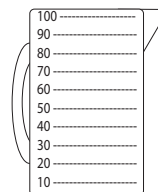
70mls

9.



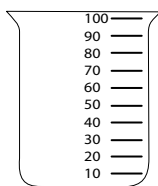
60mls

14.



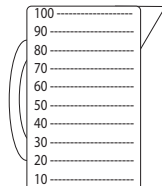
100mls

5.



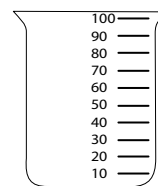
50mls

10.



0mls

15.



40mls

Volume & Capacity - Level 1 - Students will order and read the volume & capacity of containers.

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Let's Try This Again



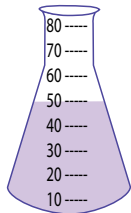
Progress To Synthesis

Name: _____

Volume And Capacity

Record the total capacity and current volume for each container below.

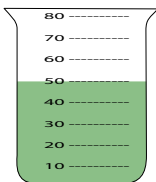
1.



Current Volume: ___ mls

Total Capacity: ___ mls

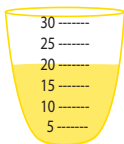
2.



Current Volume: ___ mls

Total Capacity: ___ mls

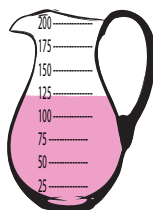
3.



Current Volume: ___ mls

Total Capacity: ___ mls

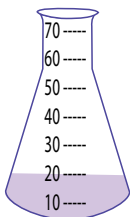
4.



Current Volume: ___ mls

Total Capacity: ___ mls

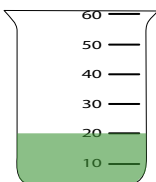
5.



Current Volume: ___ mls

Total Capacity: ___ mls

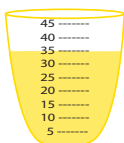
6.



Current Volume: ___ mls

Total Capacity: ___ mls

7.



Current Volume: ___ mls

Total Capacity: ___ mls

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Let's Try This Again



Progress To Evaluation

Volume & Capacity Discussion

The following questions and activities are provide as a starting point for fun discussions related to Volume & Capacity. During these conversations students will have an opportunity to use appropriate mathematical language in its correct context, to engage in reflection on the Volume & Capacity activities they have completed and to use logical reasoning to tie their in-class mathematics to its



How do volume and capacity differ?



What happens if the volume is greater than the capacity?



How do we know how much 1 Litre actually is?



Discuss that volume can only measure liquids and not solids due to the gaps created by solid matter.



Compare a range of various containers and have students predict how many of one container will be needed to fill another. Water can be used to demonstrate this and clearly show what happens when volume exceeds capacity.

