





Steps to Success

Date	5.2.21
Subject/s	Maths
Learning Objective 	To convert units of capacity

SA 	TA 
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Success Criteria 	I know there are 1000ml in 1l		
	I can multiply and divide by 1000 using or visualising a place value grid		
Support	Independent	Adult Support ()	Group Work

Pre-task:

Convert these units:

15l = _____ ml

1.9l = _____ ml

2.08l = _____ ml

_____ l = 75ml

Pre-task Answers

$$15\text{l} = 1500\text{ml}$$

$$1.9\text{l} = 1900\text{ml}$$

$$2.08\text{l} = 2080\text{ml}$$

$$0.075\text{l} = 75\text{ml}$$

How did you do? If you feel confident, move straight onto Fluency. If not, try the Teacher Led.

Teacher Led

Today we are going to focus on converting units of capacity. This will involve changing litres to millilitres and millilitres to litres.

Have a look around your house for things which hold liquids (and show how much) – this could be pop bottles, milk cartons, jugs etc.

Examples of things in litres:



This jug measures
1 litre



This jug measures
 $\frac{1}{2}$ litre (500 ml)



This milk carton
measures just
over 2 litres



This can
measures 330ml

It is important to remember that 1 litre (1l) is 1000 millilitres (1000ml)

To change from l to ml we need to multiply by 1000.

We can use a place value grid to help us do this. Just move the digits 3 places to the left, then put in zeros as place holders in the whole numbers.

For example $3.6\text{l} = 3600\text{ml}$

Th	H	T	O	.	1/10	1/100	1/1000
3	6	0	0	.	6		

Here is another example
 For example $0.53\text{l} = 530\text{ml}$

Th	H	T	O	•	1/10	1/100	1/1000
	5	3	0	•	5	3	

If I want to convert millilitres (ml) to litres (l), I just need to divide by 1000. I move the digits 3 places to the right.

So, $2300\text{ml} = 2.3\text{ l}$

I can put the zeros in as place holders, but I don't need to here.

Th	H	T	O	•	1/10	1/100	1/1000
2	3	0	0	•	3		

Let's try another example

$260\text{ml} = 0.26\text{l}$

I need to put in a zero as a place holder to show that there are no whole litres.

Th	H	T	O	•	1/10	1/100	1/1000
	2	6	0	•	2	6	

Remember, if at any point you get stuck, draw a place value grid

To change l to ml: $\times 1000$ – move the digits 3 places to the left

To change ml to l: $\div 1000$ – move the digits 3 places to the right

Fluency

1.

Litres	Millilitres
0.252	
0.633	
0.191	
0.721	
0.725	
0.71	
0.583	
0.595	
0.625	
0.244	

2.

Litres	Millilitres
1.929	
1.308	
7.717	
2.59	
2.031	
8.53	
4.103	
6.924	
4.531	
5.007	

3.

Litres	Millilitres
	175
	57
	292
	462
	366
	334
	517
	689
	212
	185

4.

Litres	Millilitres
	7055
	4059
	3096
	8684
	8219
	7139
	2607
	2010
	3400
	6311

Fluency Answers

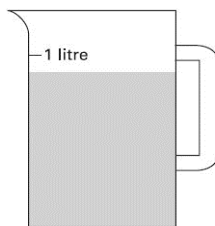
1.	Litres	Millilitres	2.	Litres	Millilitres	3.	Litres	Millilitres	4.	Litres	Millilitres
	0.252	252		1.929	1929		0.175	175		7.055	7055
	0.633	633		1.308	1308		0.057	57		4.059	4059
	0.191	191		7.717	7717		0.292	292		3.096	3096
	0.721	721		2.59	2590		0.462	462		8.684	8684
	0.725	725		2.031	2031		0.366	366		8.219	8219
	0.71	710		8.53	8530		0.334	334		7.139	7139
	0.583	583		4.103	4103		0.517	517		2.607	2607
	0.595	595		6.924	6924		0.689	689		2.01	2010
	0.625	625		4.531	4531		0.212	212		3.4	3400
	0.244	244		5.007	5007		0.185	185		6.311	6311

Problem Solving and Reasoning

Q5. Sophie poured some water out of a **litre** jug.

Look how much is left in the jug.

Estimate how many millilitres of water are left.



1 mark

Use it!



A bottle holds **1 litre** of lemonade.

Rachel fills **5** glasses with lemonade.

She puts **150 millilitres** in each glass.

How much lemonade is left in the bottle?

Use it!

Megan wants to fill a bucket with water.



A bucket holds **6** litres.

A jug holds **500** millilitres.

How many jugs of water does Megan need to fill an empty bucket?

Answers

900ml or 0.9l

1l = 1000ml

Estimate 100ml poured out.

$$1000 - 100 = 900\text{ml}$$

250ml is left

$$150 \times 5 = 750\text{ml}$$

1l = 1000ml

$$1000 - 750 = 250$$

12jugs

$$6\text{l} = 6000\text{ml}$$

$$6000\text{ml divided by } 500 = 12$$