# 3rd Class Planet Maths: Capacity Chapter pg.157-161

My goal is to learn that capacity is the measure of how much a container can hold.

## A Warm-up. Listen to your teacher. Measure up!

We measure liquid using litres (l) and millilitres (ml).

### Capacity

Capacity is the amount a container can hold.
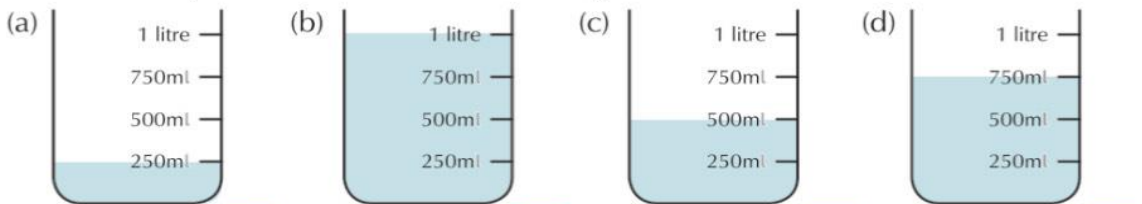We measure capacity in litres and millilitres.

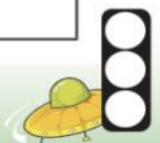## B Circle the items that hold less than one litre.

1 litre = 1,000 ml

## C Write some items in the table below.

| Less than 1 litre | cup of coffee, |
|---|---|
| Greater than 1 litre | tin of paint, |

## D

**1. How much liquid is in each of the following containers?**

(a) 1 litre, 750ml, 500ml, 250ml

(b) 1 litre, 750ml, 500ml, 250ml

(c) 1 litre, 750ml, 500ml, 250ml

(d) 1 litre, 750ml, 500ml, 250ml

**2. Can you think of two containers that might hold the following amounts?**

(a) 250ml

(b) 1l

(c) 500ml

(d) 750ml

354 Estimate, compare, measure and record the capacity of a wide variety of objects using appropriate metric units (l, ml).

Strand  Measure
Strand Unit  Capacity

Objectives

**A** Think of six different containers. Estimate and measure the capacity of each.

| Container | My estimate | Actual capacity | Difference |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |

**B** Measuring.

| 1ml | 5ml | 50ml | 100ml | 500ml |

1. How many drops of water are needed to fill a spoon?
2. How many spoons of water would fill the egg cup?
3. Graham wants to drink **500ml** of water. How many cups will he need to drink?
4. How many millilitres are in **3** egg cups?
5. How many drops of water are in the bottle of water?
6. How many egg cups are needed to fill the cup?
7. How many cups of water are needed to fill a 1 litre bottle?

Challenge Yourself!

8. If you were to drink the recommended $1\frac{1}{2}$ litres of water a day, how many 500ml bottles of water would you need to drink?
9. Alan has ten 500ml bottles of water in his fridge. How many litres of water does he have altogether?
10. What fraction of a litre is the cup?

**C** The wrong measuring jugs

Pair work

Wallis and Ian are making a surprise cake for their mother's birthday. They need to add **300ml** of milk but they only have jugs that measure **500ml** and **200ml**. Can you help them?

**A** Look at the picture and answer the questions.



1. Sarah-Jane pours each of her **4** friends a glass of cola. How much does each glass hold if there is nothing left in the bottle?

2. How many glasses of lemonade can they pour from the bottle?

3. How many more glasses of orange than glasses of cola can they pour?

4. How many glasses of drink could they pour altogether?

5. If you gave each person **2** glasses of drink, how many people could come to the party?

6. If only **3** people were at the party, how many glasses of drink could they have?

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**B** Adding litres.

| 1. | l  ml |
|---|---|
| | 2  230 |
| | + 1  240 |

| 2. | l  ml |
|---|---|
| | 4  300 |
| | + 3  260 |

| 3. | l  ml |
|---|---|
| | 5  350 |
| | + 2  200 |

| 4. | l  ml |
|---|---|
| | 6  150 |
| | + 3  730 |

**Example**

| l  ml |
|---|
| 3  736 |
| + 2,  4̣4̣4 |
| 6  180 |

| 5. | l  ml |
|---|---|
| | 2  650 |
| | + 5  250 |

| 6. | l  ml |
|---|---|
| | 4  860 |
| | + 3  140 |

| 7. | l  ml |
|---|---|
| | 7  544 |
| | + 2  644 |

| 8. | l  ml |
|---|---|
| | 2  940 |
| | + 6  260 |

| 9. | l  ml |
|---|---|
| | 8  912 |
| | + 1  001 |

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**C** Add the following in your copy.

Remember to keep the litres under the litres and the millilitres under the millilitres.

Make sure you put your numbers in the correct columns.

1. 2l 340ml + 4l 350ml = _____

2. 6l 320ml + 4l 830ml = _____

3. 3l 470ml + 5l 320ml = _____

4. 5l 645ml + 2l 55ml = _____

5. 6l 222ml + 2l 240ml = _____

6. 2l 870ml + 3l 5ml = _____

Objectives

355.1 Solve and complete practical tasks and problems involving the addition of capacity (l, ml).

**Strand** Measure
**Strand Unit** Capacity

**A** **Add or subtract**

1.
| l | ml |
|---|---|
| 4 | 485 |
| − 2 | 240 |

2.
| l | ml |
|---|---|
| 6 | 540 |
| − 4 | 350 |

3.
| l | ml |
|---|---|
| 10 | 350 |
| − 8 | 200 |

4.
| l | ml |
|---|---|
| 3 | 642 |
| + 1 | 721 |

5.
| l | ml |
|---|---|
| 9 | 358 |
| + 6 | 439 |

6. 5l 342ml − 3l 251ml = _____   7. 9l 456ml − 5l 148ml = _____

**B** **A summer day**

1. Mum filled the paddling pool to **half way**. Then Tommy filled it to the top. He put **30 litres** in. How many litres did it take to fill the pool?

2. Ciara jumped into the pool and **5 litres** of water splashed over the edges. How much water was left in the pool?

3. Tommy ran inside to get a drink. He poured **150ml** of cordial into the jug and then filled the jug up to the top with **1l 350ml** of water. How much juice was in the jug?

4. Ciara poured herself a drink from the jug. Her glass held 250ml. How much was left in the jug?

5. Ciara filled a bucket with water to have a water fight. The bucket held **5 litres**. She poured **4l 340ml** over Tommy. How much was left in the bucket?

6. Tommy and Ciara decided to empty out the paddling pool using the bucket. How many times did they have to fill the bucket?

**C** **Estimating with water.**

*Pair work*

1. How many litres do you think it takes to:
   (a) fill a bath ___
   (b) flush the toilet ___
   (c) brush your teeth ___
   (d) take a shower ___
   (e) wash up after dinner or run the dishwasher (choose one) ___

2. Approximately how many litres of water does a person use a day?

3. How can you reduce the amount of water used when brushing your teeth?

355.2 Solve and complete practical tasks and problems involving the subtraction of capacity (l, ml).

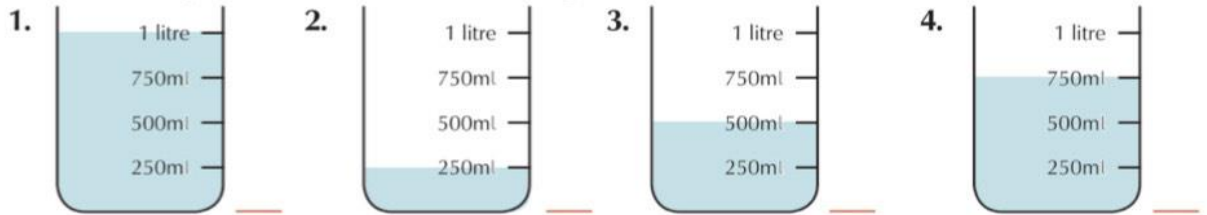| Strand | Measure |
|---|---|
| Strand Unit | Capacity |

## A Explain it!

Your partner wants to bake a cake but does not know how to measure liquid or what the word capacity even means. Explain about capacity and how to measure liquid.

## B Do it!

How much liquid is in each of the following?

1.
1 litre
750ml
500ml
250ml
_____

2.
1 litre
750ml
500ml
250ml
_____

3.
1 litre
750ml
500ml
250ml
_____

4.
1 litre
750ml
500ml
250ml
_____

## C Solve it!

1. Nicky has a jug that holds **2·5** litres of juice. She fills a glass that can hold **250ml**. How many times could she fill the glass until there is no juice left?

2. Jamie filled **2** glasses with water. One holds **750ml** and the other one holds **534ml**. How much water did he pour altogether?

3. Simon bought a bottle of water. He chose the biggest bottle. Which one did he go for?

   (a) 275ml bottle    (b) $\frac{1}{2}l$ bottle    (c) $\frac{1}{4}l$ bottle    (d) 0·3l bottle

## D Say it!

1. The _____ of a container is how much liquid it can hold.
2. A _____ is used to hold liquid.
3. There are 1,000 _____ in a litre.
4. You must _____ liquids to get the right amount.

## E Share it!

There are **3** buckets: one red, one blue and one yellow.
They each hold up to **5 litres** of water.

Water is measured carefully in litres and poured into the buckets, a different number of litres in each one.

If the liquid in the red bucket was poured into the blue bucket containing **3 litres**, it would then contain the same amount of water as the yellow bucket.

Half the water of the yellow bucket is **2 litres**.

How much liquid is there in each bucket?