Year 2 Maths

Have a go at the exercises that focus on each learning intention for each day. Do as many exercises as you can. Remember to use your number facts and to write your working out down to help you find the answers. If you need more help or want an extra challenge:

- Click here to view ‘What is Capacity’.
- Click here to view some maths games
- Click here to complete a Friday Challenge. You can challenge yourself on any day.

If you wish, you can share your maths work with us at: homelearning@stjeromebilingual.org

Miss Reynolds and Miss Dear ☺

Monday
LI: To use balance scales to compare the mass of two or more objects. To compare mass using < and > (less than and more than) and order objects based on their masses.

Mathematical language for discussions
If you can, weigh some objects and discuss the following questions with someone at home:

- Can you hold the objects and predict which is heavier? Is the largest object always the heaviest?
- Which object is heavier? Which object is lighter?

Then, have a go at the following word problems and discuss the following questions with someone at home:

- Which side is lower?
- What does this tell us about the objects?
- Which object is heavier? Which object is lighter?

1. Using the words ‘more’ and ‘less’ and the > or < symbols, describe the mass.

   The lettuce weighs _____ than the pineapple.

2. Complete the sentences:
   - 4 bananas weigh the same as ___ doughnuts.
   - 2 bananas weigh the same as ___ doughnuts

   Can you write sentences using ‘more’ or ‘less’ using the image?
Tuesday
LI: To use standard units of mass (grams). To continue to use balance scales before moving on to use standard weighing scales. To apply their counting in 2s, 5s and 10s skills to reading scales accurately.
To use their knowledge of measuring mass in grams to start to measure mass in kilograms.
To apply counting in 2s, 5s and 10s to measure on different scales.

Mathematical language for discussions
Discuss the following questions with someone at home:

- When the balance scales are level, what does this tell us?
- What symbol could we use? ( = ) What is the mass of the ______? What would two ______ weigh?
- How could you tell if something was lighter or heavier than 10g?
- How much heavier is the ______ than the ______? How could you work it out?
- Which is heavier, one gram or one kilogram?
- What do you think we might measure in kilograms?
- How much do you think that you weigh?
- Would you measure this in grams or kilograms? Let’s estimate and then weigh ourselves!

If you can, give children the opportunity to feel the mass of gram and kilogram weights or food of different weights so they can use this for estimation and to answer the word
problems. If possible, they should compare an object/food with a mass of 100g and an object/food with mass 1kg.

If you have kitchen and/or bathroom scales at home please give the children the opportunity to discuss which is heavier or lighter/which has a greater or lower mass, before weighing the objects.

Children could also weigh food and use a recipe.

1. Use gram weights to measure the mass of objects using a balance scale.
   The _____ weighs ______ grams.

2. Order the items from heaviest to lightest.

3. Which is heavier, the red or the green beanbag?
   Explain why.

4. 5. What is the mass of each barrel?

   Double the mass of A
   Half the mass of A
   What is the difference between the mass of B and C?

   The brown parcel weighs twice as much as the blue parcel.
   The green parcel weighs 2 kg more than 30 kg
   The blue parcel weighs 12 kg less than the green parcel.

   Draw an arrow to show where each parcel would be on the scale.

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<tr>
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<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
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</table>
Weekend

1. Find the mass of the sweets and the beans.
   
   The sweets weigh ____kg
   The beans weigh ____g

2. Read the scales to find the mass of each.
   
   The bag weighs ____ kg.
   The person weighs ____ kg.

3. Sophie’s family are going on holiday. Compare the mass of their suitcases.
   
   Sophie’s suitcase is ______ than Dad’s suitcase.
   Mum’s suitcase weighs ____ kg more than Dad’s suitcase.

**Wednesday**

LI: To compare the volume of containers using < , > and =. To build on understanding of the difference between capacity and volume from Year 1. To use the language ‘quarter’, ‘half’ and ‘three-quarters full’ to describe and compare volume.

**Capacity** is the amount a container can hold. **Volume** is the amount it is actually holding.

**Mathematical language for discussions**

Have a go at the word problems below and discuss the following questions with someone at home:

- Which container has the largest/smallest capacity? How do you know?
- Can we order them from largest to smallest?
- Which container has the most or least liquid in?
- How many mugs does it take to fill the bottle? Is this more or less than the pot? Can we find the difference?
- Does the tallest container always hold the most?

If you can, give children the opportunity to use various containers to explore the relationship between volume and capacity. They can use this information to estimate the answers to the word problems.
1. Complete the sentences using the words ‘less’, ‘more’ or ‘equal’.
   
   Container A has _______ than container B.
   Container C has _______ than container B.
   Container A has _______ than container C but _______ than container B.

2. Whitney had two full bottles of juice. She poured some juice into two glasses.
   
   Which glass has the most juice in?
   Which has the least juice in?
   Explain how you know.

3. How many does the hold?

   Choose a selection of different sized containers.
   Decide how you will measure how much liquid each container can hold.
   Order your containers from smallest to largest.
   Compare the containers using <, > or =

4. Draw the level on the scale to show the capacity of each container.

   Use a variety of different containers with ml clearly labelled e.g. measuring spoon, water bottle, liquid soap, vinegar etc.
   Introduce that liquid can be measured in millilitres. Discuss whether 5 ml is a large or small amount. Show 5 ml using a medicine spoon. Look at the containers estimate then identify how many ml each container holds.

5. A holds 5 ml of liquid.

   How many of liquid are there in each container?

6. Estimate the amount of water in the container.

   Explain why you have given your answer.
Thursday

LI: To recognise the difference between measuring in millilitres and litres and when it is more efficient to use litres to measure liquid rather than millilitres. To estimate volumes and then check by measuring.

Mathematical talk for discussion

Have a go at the word problems below and discuss the following questions with someone at home:

- Which is larger, 1 millilitre or 1 litre? How do you know?
- Would you measure ________ in litres or millilitres? Why?
- How many litres of water do you drink a day? Show the children a litre container.
- How many litres of water do you think it would take to fill ________?

If you can, give children the opportunity to use various containers to explore the relationship between volume and capacity. They can use this information to estimate the answers to the word problems.

1. Provide a variety of different containers with litres clearly labelled e.g. cola bottle, paint bottle, milk etc.

Introduce litres and discuss how these are the same but different to millilitres. Identify how many litres fill each container.

2. Show how much liquid is in each cylinder after you:
   - Pour 3 litres of water into the cylinder.
   - Leave 1 litre of cola in the bottle.
   - Pour half of the juice into the cylinder.

3. Mo puts 4 litres of water in bucket A. He then pours 3 litres from bucket A into bucket B.

   Which sentence is correct?
   - There is more in bucket A.
   - There is less in bucket A.
   - There are equal amounts in each bucket.

   Explain why.

4. Look carefully at the containers.

   The tallest container has the largest capacity.
   Is this always true, sometimes true or never true? Explain your answer.

   Find 4 containers of different heights and investigate.
   Have you changed your mind?

5. It takes 5 bottles to fill the pan with water.
   How many bottles will it take to fill 2 pans?

   This pot is larger than the pan. It takes 3 more bottles to fill it.
   How many bottles of water are needed to fill it half-full?

   Find 3 different containers. Use a cup to find out how many it takes to fill each one. Order the containers from largest to smallest capacity.
Friday

LI: To practice reading a block graph. To complete a table and use it to draw a block graph where one square represents two units.

Look at the graph below and answer the questions on the right-hand side:

![Block Graph Example]

**Challenge:**

Make your own block graph!

Look at the pictures of containers, with their capacities given in litres, Arrange the containers in order of capacity, from smallest to largest. Fill this information in on the Capacity Table and use the table to complete the block graph on the blank block graph where one square represents 2 litres.
<table>
<thead>
<tr>
<th>Item</th>
<th>Capacity</th>
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<tr>
<td>small bucket</td>
<td>8 litres</td>
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<td>sink</td>
<td>21 litres</td>
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<tr>
<td>carton of juice</td>
<td>1 litre</td>
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<td>saucepan</td>
<td>3 litres</td>
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<td>bottle of lemonade</td>
<td>2 litres</td>
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<td>watering can</td>
<td>6 litres</td>
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<td>baby bath</td>
<td>28 litres</td>
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<td>big bucket</td>
<td>15 litres</td>
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## Capacity table

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<th>Container</th>
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Blank block graph

Title: ________________________________