

Year 5 Maths – Summer 1 Week beginning: 11.5.20

Theme	Converting units of mass Kilograms and grams	Converting units of mass. Kilograms and grams	Converting units of mass Kilograms, grams and pounds	Converting units of imperial units to metric units	Units of Measurement Converting units of time																			
Factual fluency (to aid fluency)	Recap your division skills here	Recap your division skills here	Recap your division skills here	Recap your division skills here	Recap your knowledge on units of time here																			
<p>Problem/ activity of the day</p> <p>Remember, just like in class, you can still show the depth of your knowledge Link</p>	<p>(Lesson 1 resources below) MAKING LINKS: Last week we learn about converting between grams and kilograms. Remind yourself here.</p> <p>THINK: (support below) Can you help me with this problem?</p> <p>THINK:</p> <table border="1"> <tr> <td>  1040g </td> <td rowspan="3">Write the mass of each bag in kilograms.</td> </tr> <tr> <td>  2150g </td> </tr> <tr> <td>  690g </td> </tr> </table> <p>SEE: (model below)</p> <p>A good way to solve this is by splitting the numbers up to make them easier to work with.</p> <p>Watch the lesson video here.</p> <p>DO: Use what you have learnt today to solve the other problems below.</p>	 1040g	Write the mass of each bag in kilograms.	 2150g	 690g	<p>(Lesson 2 resources below) MAKING LINKS: Yesterday we practised converting between grams and kilograms.</p> <p>THINK: (support below) Can you help me with this problem? These children have been making cakes. Each cake needed the same amount of butter.</p> <p>The children started with the same amount of butter. Emma made 5 cakes and ended up with 1450g of butter left over. Joe made 10 cakes and ended up with 400g butter left over. How much butter did they each start with?</p> <p>SEE: (model below)</p> <p>A good way to solve this is using a bar model. Can you guess how it might look?</p> <p>Watch the lesson video here.</p> <p>DO: Use what you have learnt today to solve the other problems below.</p>	<p>(Lesson 3 resources below) MAKING LINKS: Last week we looked at imperial measures - feet and inches. Today we will look at another imperial measure – pounds. See more here.</p> <p>THINK: (support below) Can you help me with this problem?</p> <p>Another way of measuring mass is using pounds which we write as lbs. Babies and toddlers are still often weighed using pounds. Convert these babies' weights into pounds. $1\text{ kg} \approx 2.2\text{ lbs}$. The \approx sign means approximately.</p> <table border="1"> <thead> <tr> <th></th> <th>Weight in kg</th> <th>Weight in lbs</th> </tr> </thead> <tbody> <tr> <td>Chloe</td> <td>4kg</td> <td></td> </tr> <tr> <td>Silas</td> <td>8kg</td> <td></td> </tr> <tr> <td>Zak</td> <td>10kg</td> <td></td> </tr> <tr> <td>Ebodie</td> <td>13kg</td> <td></td> </tr> </tbody> </table> <p>SEE: (model below)</p> <p>Watch the lesson video here.</p> <p>DO: Use what you have learnt today to solve the other problems below.</p>		Weight in kg	Weight in lbs	Chloe	4kg		Silas	8kg		Zak	10kg		Ebodie	13kg		<p>(Lesson 4 resources below) MAKING LINKS: Yesterday we converted units of mass, including kg and lbs.</p> <p>THINK: (support below) Can you help me with this problem?</p>  <p>SEE: (model below)</p> <p>Multiplication and division skills will be important in solving today's problems.</p> <p>Watch the video lesson here.</p> <p>DO: Use what you have learnt today to solve the problems below.</p>	<p>(Lesson 5 resources below) MAKING LINKS: In Year 4, you studied how to convert units of time. Today's lesson continues this learning.</p> <p>THINK: (support below) Can you help me with this problem?</p>  <p>Whose baby brother is older?</p> <p>SEE: (model below)</p> <p>See the model below in the Day 5 resources.</p> <p>DO: Use what you have learnt today to solve the problems below.</p>
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Methods, tips, clues & checks	Day 1 resources and answers (below)	Day 2 resources and answers (below)	Day 3 resources and answers (below)	Day 4 resources and answers (below)	Day 5 resources and answers (below)																			

See below for resources to support you to THINK-SEE-DO

DAY1 RESOURCES:

THINK:		Mass in grams	Write the mass of each bag in kilograms.
		1040g	
		2150g	
		690g	

SEE: Watch the [video](#).

I can split up each number then use my facts from last week to help me work out each part in kg.

	1040g		2150g		690g
$1040g = 1000g + 40g$		$2150g = 2000g + 100g + 50g$		$690g = 600g + 90g$	
$1000g = 1\text{ kg}$		$1000g = 1\text{kg}$		$100g = 0.1\text{kg}$	
$10g = 0.01\text{kg}$		$2000g = 2\text{kg}$		$600g = 0.6\text{kg}$	
$40g = 0.04\text{kg}$		$100g = 0.1\text{kg}$		$90g = 0.09\text{kg}$	
1.04kg		$10g = 0.01\text{kg}$		$10g = 0.01\text{kg}$	
		$50g = 0.05\text{kg}$		$90g = 0.09\text{kg}$	
		2.15kg		0.69kg	

DO:

Write each mass in kilograms.

1. 1020g
2. 2030g
3. 1400g
4. 1500g
5. 2480g
6. 1350g

Top tips:

1000g = 1kg
100g = 0.1kg
10g = 0.01kg

7. Order these from heaviest to lightest

1.3kg 1003g 1.03kg 1303g

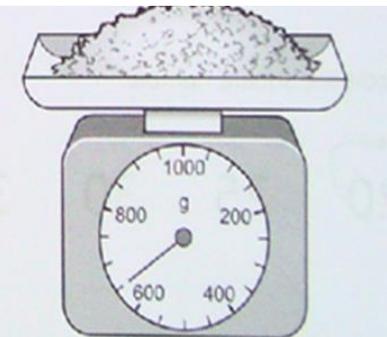
8. Order these from lightest to heaviest

3600g 3.06kg 3006g 3.66kg

Deepening

Dan has **2 kg** of flour in a bag. 96

He puts some flour onto some scales.



How much flour is left in the bag?

DAY 2 RESOURCES:

THINK:

These children have been making cakes. Each cake needed the same amount of butter.

The children each started with the same amount of butter. Emma made 5 cakes and ended up with 1450g of butter left over. Joe made 10 cakes and ended up with 400g butter left over.

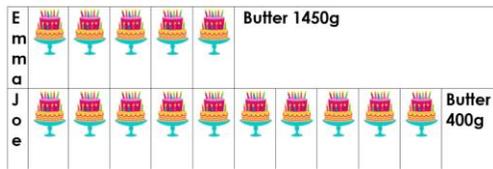
How much butter did they each start with?

Top tip – a bar model would be really useful here!

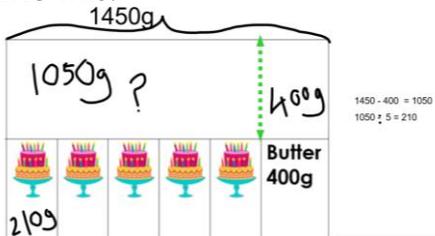
SEE:

Watch the [video](#).

1 The bar model could look like this.



2 You can work out the butter in one cake. 3 Now the bar model looks like this.



4 Now you can check how much butter they each started with which is 2500g or 2.5kg.

Emma
 $210 \times 5 = 1050$
 $1050 + 1450 = 2500\text{g}$ or 2.5kg butter at the start

Joe
 $210 \times 10 = 2100$
 $2100 + 400 = 2500\text{g}$ or 2.5kg butter at the start

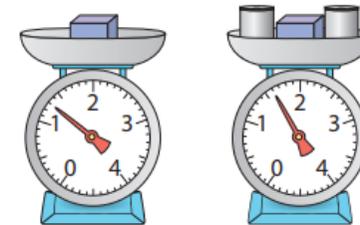
DO: Top tip: turn kg into g first before dividing.

1. This bag of rice weighs 3kg. The rice is shared equally into 6 jars. How many grams of rice is in each jar?
2. This bag of flour weighs 2kg. It is used to make 5 cakes and there is none left over. How many grams of flour goes in each cake?
3. a) What is 2.8kg in grams? How many 400g bags of pasta can be made out of 2.8kg?
4. a) What is 1.48 kg in grams? b) If 1.48kg of chocolates are shared equally into 4 boxes, how much would be in each box?
5. There are 2.1 kg of cherries. They are split equally into 7 boxes. What is the mass of the cherries in each box in grams?
6. 1.44 kg of pears are shared out equally into 6 bags. What is the mass of each bag in grams?

Deepening:

A box weighs 1.3 kg. A box and two tins weigh 1.6 kg.

How much does one tin weigh in grams?



DAY 3 RESOURCES:

THINK:

Another way of measuring mass is using pounds which we write as lbs. Can you find out why we write it this way? Babies and toddlers are still often weighed using pounds. Convert these children's weights into pounds. $1\text{kg} \approx 2.2\text{lbs}$ The \approx sign means approximately.

	Weight in kg	Weight in lbs
Chloe	4kg	
Silas	8kg	
Zak	10kg	
Elodie	15kg	

SEE: Watch the video [here](#).

You can multiply to help you or use repeated addition if that's easier.

Chloe 4 kg

$$\begin{array}{l} \times 2 \\ 1\text{kg} \approx 2.2\text{lbs} \\ \times 2 \\ 2\text{kg} \approx 4.4\text{lbs} \\ \times 2 \\ 4\text{kg} \approx 8.8\text{lbs} \end{array}$$

Or addition works too

$$\begin{array}{r} 2.2 \\ + 2.2 \\ \hline 4.4 \end{array} \quad \begin{array}{r} 4.4 \\ + 4.4 \\ \hline 8.8 \text{ lbs} \end{array}$$

Zak 10kg

$$\begin{array}{l} \times 10 \\ 1\text{kg} \approx 2.2\text{lbs} \\ \times 10 \\ 10\text{kg} \approx 22\text{ lbs} \end{array}$$

Silas 8kg

$$\begin{array}{l} \times 2 \\ 4\text{kg} \approx 8.8\text{ lbs} \\ \times 2 \\ 8\text{kg} \approx 17.6\text{ lbs} \end{array}$$

$$\begin{array}{r} 8.8 \\ + 8.8 \\ \hline 17.6 \text{ lbs} \end{array}$$

Elodie 15kg = $10\text{kg} + 5\text{kg}$

$$10\text{kg} \approx 22\text{lbs}$$

$$5\text{kg} \approx 11\text{lbs}$$

$$22+11=33\text{lbs}$$

DO:

Convert these measurements into pounds (lbs)

- 2kg
- 3kg
- 7kg
- 12kg
- 20kg
- 25kg
- 30kg
- 45kg

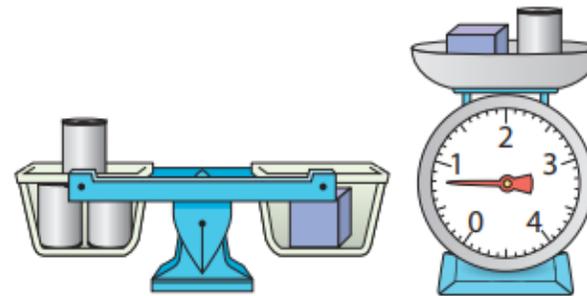
Top tip:

$$1\text{kg} \approx 2.2\text{lbs}$$

Deepening:

Here are some tins and boxes on two different scales.

How many grams does a tin weigh? How many grams does the box weigh?



Super challenge:

How much does a tin weigh in pounds (lbs)?

How much does a box weigh in pounds (lbs)?

(You might need to use a calculator to do this part)

DAY 4 RESOURCES

THINK:

1lbs \approx 450g

1 pint \approx 570ml



\approx means approximately equal to

Recipe
(for five cakes)

- 2lbs of unsalted butter
- 1lbs of caster sugar
- 4 free range eggs
- $7\frac{1}{2}$ lbs self-raising flour
- 2 tablespoons of baking powder
- $1\frac{1}{5}$ lbs of cocoa powder
- $1\frac{1}{2}$ pints of milk

Can you convert this recipe from **pounds (lbs)** to **grams (g)**
and from **pints** to **millilitres (ml)**?

DO:

Using the conversion rate **1lbs \approx 450g**, convert the following measurements:

1. 3lbs = _____ g
2. 5lbs = _____ g
3. 10lbs = _____ g
4. 15lbs = _____ g
5. $2\frac{1}{3}$ lbs = _____ g
6. $1\frac{1}{9}$ lbs = _____ g

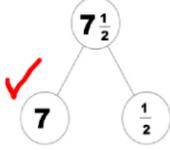
Using the conversion rate **1 pint \approx 570ml**, convert the following measurements:

7. 2 pints = _____ ml
8. 3 pints = _____ ml
9. 5 pints = _____ ml
10. 12 pints = _____ ml
11. $4\frac{1}{2}$ pints = _____ ml

SEE: Watch the video lesson [here](#).

Recipe
(for five cakes)

- 2lbs of unsalted butter
- 1lbs of caster sugar
- 4 free range eggs
- $7\frac{1}{2}$ lbs self-raising flour
- 2 tablespoons of baking powder
- $1\frac{1}{5}$ lbs of cocoa powder
- $1\frac{1}{2}$ pints of milk



x
multiplication

To convert $7\frac{1}{2}$ lbs to grams, it is helpful to partition $7\frac{1}{2}$ into 7 and $\frac{1}{2}$. We can then convert each of these separately.

450g						
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$$\begin{array}{r} 450 \\ \times 7 \\ \hline 0 \\ + 1\ 350 \\ \hline 2800 \\ \hline 3150 \end{array}$$

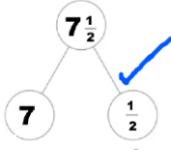
7 lbs of self-raising flour = 3,150g

or

3.15kg

We know that 1lb \approx 450g, so to convert 7lb, we can multiply 450 by 7.

$$\begin{array}{r} 2 \overline{) 450} \\ \underline{225} \\ 225 \\ \underline{225} \\ 0 \end{array}$$



÷
Division

$\frac{1}{2}$ lb = 225g

We then need to convert $\frac{1}{2}$ lb to grams. We know that 1lb \approx 450g, so we can divide 450 by 2 to do this.

7lbs = 3,150g

$\frac{1}{2}$ lb = 225g

$$\begin{array}{r} + 3150 \\ \underline{225} \\ \hline 6405g \end{array}$$

Converted amount

6,405g of self-raising flour (6.405kg)

Now that we know what 7lbs and $\frac{1}{2}$ lb is in grams, we can add them together to find out how much $7\frac{1}{2}$ lb is in grams.

DEEPENING CHALLENGE

Can you work out the amounts of ingredients in grams and millilitres for one cake from the THINK section?

DAY 5 RESOURCES:

THINK:



Whose baby brother is older?

DO:

1. 0.5 years = _____ months
2. 2 years = _____ months
3. 3 years 4 months = _____ months
4. 5 years 11 months = _____ months
5. 6 years 7 months = _____ months
6. 38 months = _____ years _____ months
7. 100 months = _____ years _____ months

8. The Table below show the ages of puppies at a dog show. Complete the table.

Name of puppy	In months	In years and months	In years
Jack	13 months		
Sam		1 year and 3 months	
Rover			$2\frac{1}{6}$ years
Jake	21 months		
Ollie			$2\frac{1}{2}$ years

9. When Tom was five years old, his brother was 20 months old. How much older is Tom than his brother? Give your answer in years and months.

DEEPENING CHALLENGE

My mother is twenty-six years older than me. Next year, she will be three times my age. How old am I now?

SEE:

Key Fact

1 year = 12 months

3 years = 3 x 12 months
= 36 months
3 years and 7 months = 36 months + 7 months
= 43 months



's baby brother is older by 6 months

METHOD 1



METHOD 2

We can divide the number of months by 12.

$$\begin{array}{r} 3 \\ 12 \overline{) 37} \\ \underline{- 36} \\ 1 \end{array}$$

There are 3 groups of 12

There is a remainder of 1 month

ANSWERS:

<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>	<u>Day 4</u>	<u>Day 5</u>																								
<ol style="list-style-type: none"> 1.02kg 2.03kg 1.4kg 1.5kg 2.48kg 1.35kg <p>1303g, 1.3kg , 1.03kg, 1003g</p> <p>3006g, 3.06kg , 3600g, 3.66kg</p> <p>Deepening: 1.35kg</p>	<ol style="list-style-type: none"> 500g 400g 2800g and 7 bags 1480g and 370g of chocolates 300g 240g <p>Deepening: 150g</p>	<ol style="list-style-type: none"> 4.4 lbs 6.6lbs 15.4lbs 26.4 lbs 44lbs 55lbs 66lbs 99lbs <p>Deepening: tin= 200g Box= 600g</p> <p>Super challenge: 0.441lbs 1.323 lbs</p>	<ol style="list-style-type: none"> 1350g or 1.35kg 2,250g or 2.25kg 4,500g or 4.5kg 6,750g or 6.75kg 1,050g or 1.05kg 500g or 0.5kg 1,140ml or 1.14L 1,710ml or 1.17L 2,850ml or 2.85L 6,840ml or 6.84L <p>2,565ml or 2.565L</p>	<ol style="list-style-type: none"> 6 months 24 months 40 months 71 months 79 months 3 years and 2 months 8 years and 4 months 40 months = $3\frac{1}{2}$ years <p>DEEPENING CHALLENGE</p> <p>12 years old.</p> <table border="1"> <thead> <tr> <th>Name of puppy</th> <th>In months</th> <th>In years and months</th> <th>In years</th> </tr> </thead> <tbody> <tr> <td>Jack</td> <td>13 months</td> <td>1 year 1 month</td> <td>$1\frac{1}{12}$ years</td> </tr> <tr> <td>Sam</td> <td>15 months</td> <td>1 year and 3 months</td> <td>$1\frac{1}{4}$ years</td> </tr> <tr> <td>Rover</td> <td>26 months</td> <td>2 years 2 months</td> <td>$2\frac{1}{6}$ years</td> </tr> <tr> <td>Jake</td> <td>21 months</td> <td>1 year 9 months</td> <td>$1\frac{3}{4}$ years</td> </tr> <tr> <td>Ollie</td> <td>30 months</td> <td>2 years 6 months</td> <td>$2\frac{1}{2}$ years</td> </tr> </tbody> </table>	Name of puppy	In months	In years and months	In years	Jack	13 months	1 year 1 month	$1\frac{1}{12}$ years	Sam	15 months	1 year and 3 months	$1\frac{1}{4}$ years	Rover	26 months	2 years 2 months	$2\frac{1}{6}$ years	Jake	21 months	1 year 9 months	$1\frac{3}{4}$ years	Ollie	30 months	2 years 6 months	$2\frac{1}{2}$ years
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