

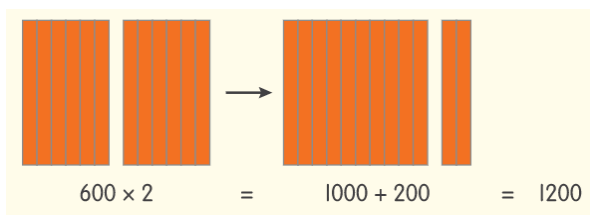
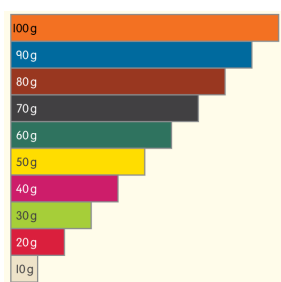
## Maths - Year 4

### Measurement 4: Understanding and using units of mass

Key Vocabulary		<h4 style="text-align: center; margin: 0;">Mathematical Skills</h4> <ul style="list-style-type: none"> <li>- Recall the number of grams in a kilogram.</li> <li>- Use understanding of place value to partition masses.</li> <li>- Round a list of masses and estimate their total.</li> <li>- Use estimation to check calculations.</li> <li>- Convert between grams and kilograms.</li> <li>- Use appropriate strategies for calculating with masses.</li> </ul>													
Allowance/limit	The amount of something that is permitted, especially within a set of regulations or for a specified purpose.														
Excess/exceed	Exceed: to go over or above the amount that is permitted. Excess: the amount left beyond the permitted value.														
Mass	The amount of matter in an object measured in, e.g. grams (g), kilograms (kg).														
Weight	How heavy something is.														
Grams (g)	A unit to measure weight/mass.														
Kilograms (kg)	A unit to measure weight/mass. 1kg = 1000g														
Convert	Change one unit of measure for another e.g. converting grams to kilograms.														
Equivalent	The same amount, represented in different ways e.g. 2.3kg = 2300g.														
Place value e.g. thousands, hundreds, tens, unit, tenths, hundredths, thousandths.	<table border="1" style="border-collapse: collapse; width: 100%; height: 100px;"> <thead> <tr> <th style="font-size: 8px;">Thousands</th> <th style="font-size: 8px;">Hundreds</th> <th style="font-size: 8px;">Tens</th> <th style="font-size: 8px;">Ones</th> <th style="font-size: 8px;">tenths</th> <th style="font-size: 8px;">hundredths</th> <th style="font-size: 8px;">thousandths</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">8</td> <td style="text-align: center;">5</td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </tbody> </table>		Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths		3	4	8	5	
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	3	4	8	5											
Rounding	Increasing or decreasing a number or amount to make it closer to (usually) a multiple of ten, or a whole measuring unit e.g. rounding 353 to 250 or 89cm to 1 metre.														

#### Mathematical Methods

- Calculating with mass e.g. calculating the mass of two pairs of trainers, both weighing 600g.



- Problem solving and calculating with mass e.g. has Max exceeded his baggage limit of 10kg.



- Measuring mass in kilograms using decimal notation

e.g.  $6.3\text{kg} = 6000\text{g} + 300\text{g}$ .

Thousands	Hundreds	Tens	Ones	tenths	
6	3	0	0	3	kg
					g

$6.3\text{ kg} = 6300\text{ g}$

- Solving everyday problems involving mass.

### Can you..?

- Find the total mass of the headphones and electronic tablet. Carl is packing for a trip.



- Lisa's backpack weighs 4kg 600g and Sam's weighs 6kg 300g. How much heavier is Sam's backpack?

- Which is bigger 3.4kg or 3.25kg? Explain how you know.

- Claire has two containers full of strawberries with a total mass of 0.73kg. An empty container weighs 0.007kg. What was the mass of the strawberries?