

Week 6 Lesson 2

Can I convert different units of metric measurement?

Fast Five

- $\frac{3}{4} + \frac{1}{6} =$

- $2.2\text{kg} = \underline{\hspace{2cm}} \text{g}$

- What is $\frac{1}{5}$ of 45?

- $1548\text{ml} = \underline{\hspace{2cm}} \text{l}$

- $1.98\text{km} = \underline{\hspace{2cm}} \text{m}$

Fast Five

- $\frac{3}{4} + \frac{1}{6} = \frac{11}{12}$
- 2.2kg = 2200g
- What is $\frac{1}{5}$ of 45? 9
- 1548ml = 1.548L
- 1.98km = 1980m

Metric Measurements

- We looked yesterday at the relationships between metric measurements.
- Kilo – is a thousand times greater than the gram/litre/metre
- Milli – is a thousand times smaller than the gram/litre/metre

TODAY we are introducing the pre-fix **centi**, this is a 100 times smaller than the gram/litre/metre

| | | |
|-----------------------------|-------------------|--|
| KILO | thousand | one thousand times bigger (than gram/metre/litre) |
| gram / meter / litre | | |
| centi | hundredth | one hundred times smaller (than gram/metre/litre) |
| milli | thousandth | one thousand times smaller (than gram/metre/litre) |

Metric measurements

Ten times bigger



millimetre centimetre metre kilometre

Metric measurements

One hundred
times bigger



millimetre centimetre metre kilometre

Metric measurements

One thousand
times bigger



millimetre centimetre metre kilometre

Metric measurements

millimetre centimetre metre kilometre



One
thousand
times
smaller

Metric measurements

millimetre centimetre metre kilometre



One hundred
times smaller

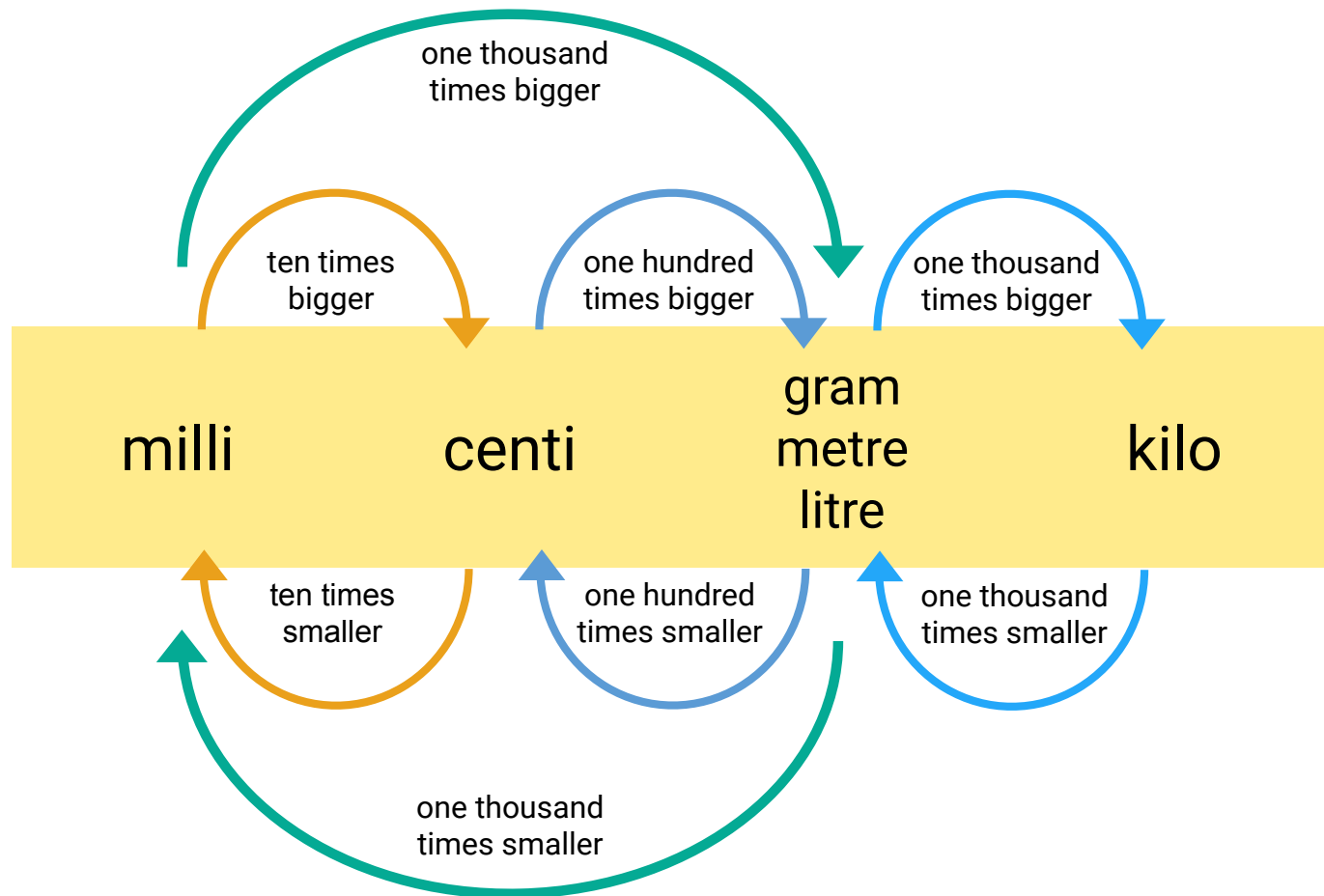
Metric measurements

millimetre centimetre metre kilometre



Ten times smaller

Metric Measurements

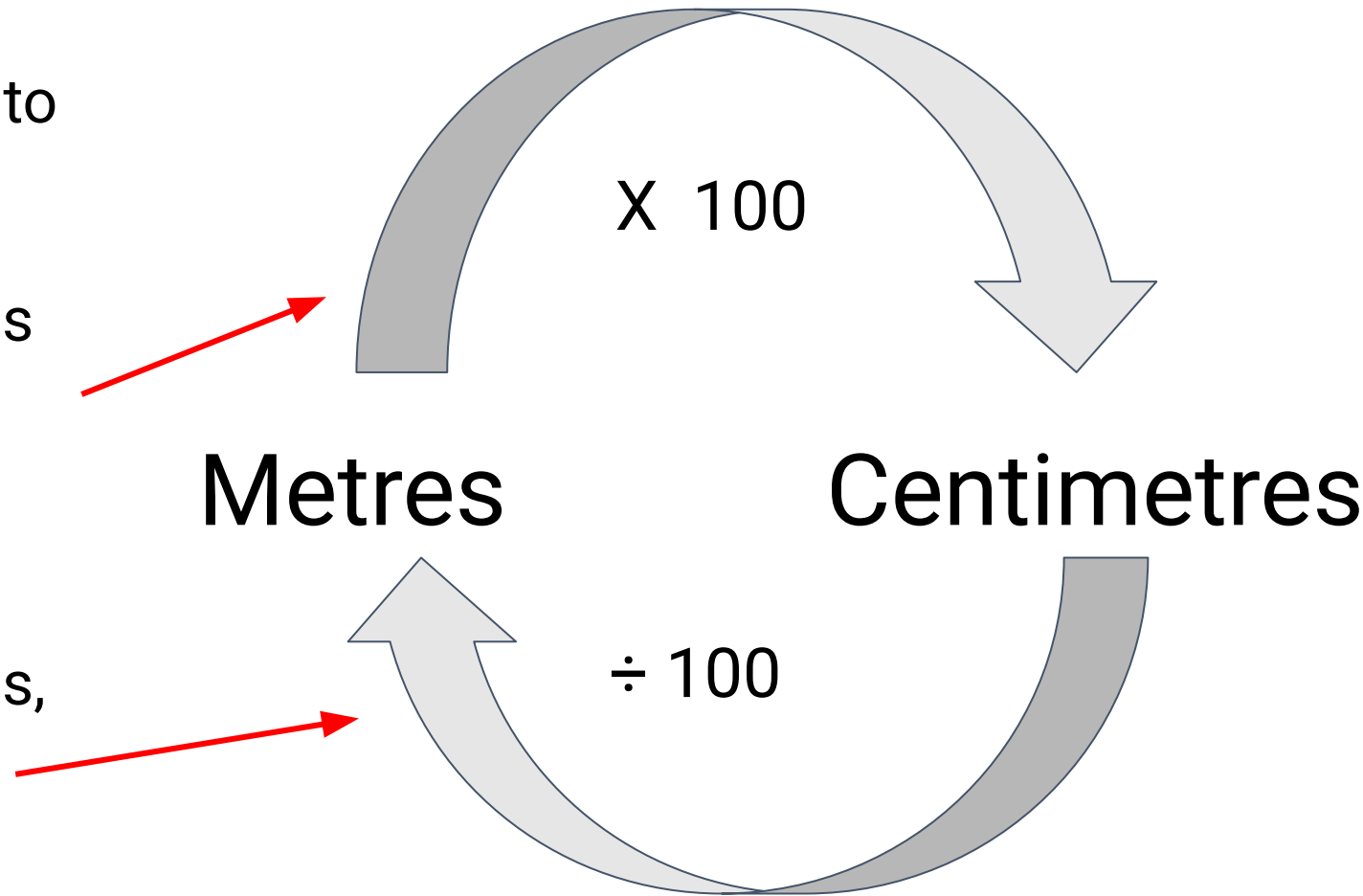


Converting between metres and centimetres

When converting between these units of weight, we can use this diagram to remind us which calculation we need to use.

To convert from metres to centimetres we have to multiply by 100 - this is because there is 100 centimetres in a metre.

To convert from centimetres to metres, we then do the inverse operation and divide by 100.



Length

1 metre (m) is equal to 100 centimetres (cm).

So multiply the metres by 100 to get the number of centimetres.

$8\text{m} = 800\text{ cm}$ (8 multiplied by 100)

100 centimetres are equal to 1 metre (m), so divide the centimetres by 100 to get the number of metres

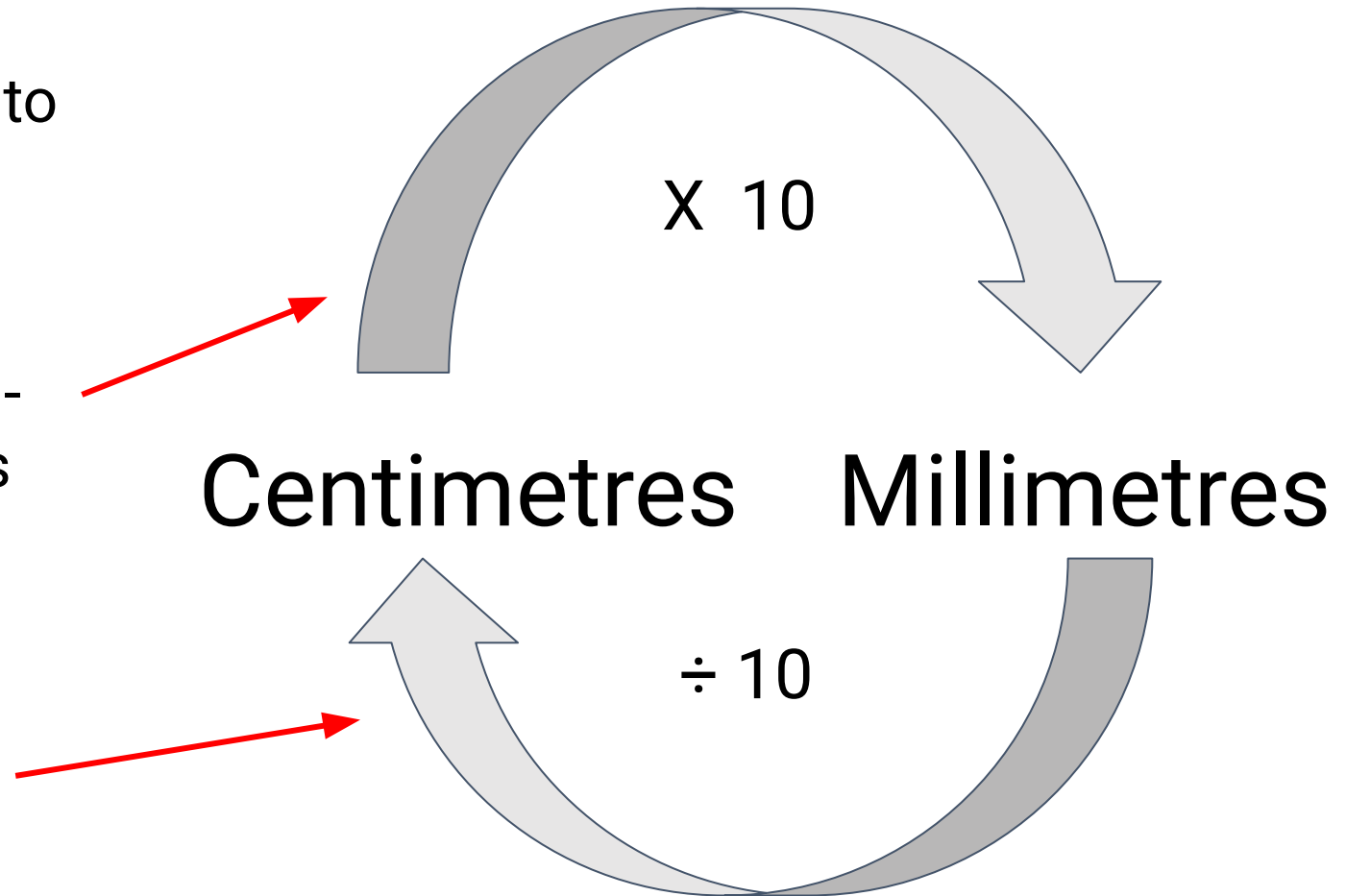
$800\text{cm} = 8\text{m}$ (800 divided by 100)

Converting between centimetres and millimetres

When converting between these units of weight, we can use this diagram to remind us which calculation we need to use.

To convert from centimetres to millimetres we have to multiply by 10 - this is because there is 10 millimetres in a centimetre.

To convert from millimetres to centimetres, we then do the inverse operation and divide by 10.



Length

1 centimetre (cm) is equal to 10 millimetres (mm), so multiply the centimetres by 10 to get the number of millimetres

$8\text{cm} = 80\text{mm}$ (8 multiplied by 10)

10 millimetres (mm) is equal to 1 centimetre (cm), so divide the millimetres by 10 to get the number of centimetres.

$80\text{mm} = 8\text{ cm}$ (80 divided by 10)

Questions on length

1. What is 3m in cm?
2. What is 2cm in mm?
3. What is 400cm in m?
4. What is 30mm in cm?

Answers

1. What is 3m in cm? $3 \times 100 = 300\text{cm}$
2. What is 2cm in mm? $2 \times 10 = 20\text{mm}$
3. What is 400cm in m? $400 \div 100 = 4\text{m}$
4. What is 30mm in cm? $30 \div 10 = 3\text{cm}$

Length

| millimetre | | centimetre | metre | kilometre |
|-------------------|---|-------------------|--------------|------------------|
| 1000 | = | 100 | 1 | 0.001 |
| 7000 | = | 700 | 7 | 0.007 |
| 23000 | = | 2300 | 23 | 0.023 |
| 176000 | = | 17600 | 176 | 0.176 |
| 2157000 | = | 215700 | 2157 | 2.157 |