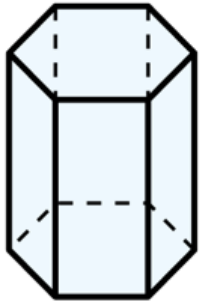
Warm-Up Challenge

Flashback 4

1) What are the coordinates of the vertices of the triangle?



2) What is the size of each angle in an equilateral triangle.

3) If an angle is 96°, what type of angle is it?

4) Find the missing number $40 \times \square = 2{,}400$

White Rose Maths

Measure – Unit Conversions

the length of a mobile phone

the weight of an apple

the capacity of a petrol tank

the capacity of a water bottle

Which units of measure could you use to measure each of these objects?

the weight of an armchair

the distance between London and Manchester

Measure – Unit Conversions

the length of a mobile phone

centimetres

the weight of an apple

grams

the capacity of a petrol tank

litres

the capacity of a water bottle

millilitres

Here are the units of measure I chose. Did you choose the same ones?

kilograms

the weight of an armchair

the distance between London and Manchester

kilometres

Measure – Unit Conversions

length	weight	capacity
millimetre	milligram	millilitre
centimetre	gram	litre
metre	kilogram	
kilometre		

Here are some of the units of measure we can use to measure length, weight and capacity. Are you familiar with all of these?

Measure – Unit Conversions

How many millimetres are there in a centimetre?

Measure – Unit Conversions

How many centimetres are there in a metre?

Measure – Unit Conversions

How many metres are there in a kilometre?

Measure – Unit Conversions

How many grams are there in a kilogram?

Measure – Unit Conversions

How many millilitres are there in a litre?

Measure – Unit Conversions

You have one minute to memorise these facts!
You will need to know these for today's activities!

10 mm = 1 cm

100 cm = 1 m

1000 m = 1 km

1000 ml = 1 l

1000 g = 1 kg

Measure – Unit Conversions

How many millilitres are there in half a litre?

Measure – Unit Conversions

How many centimetres are there in half a metre?

Measure – Unit Conversions

How many millimetres are there in one metre?

Measure – Unit Conversions

How would you write 123 centimetres in metres?

Measure – Unit Conversions

How would you write 1673 grams in kilograms?

Measure – Unit Conversions

How would you write 3.45 kilograms in grams?

Independent Challenges:

It's now time to see how much you've remembered about reading & interpreting scales as well as making conversions between measurements.

Turn to page 17 in your maths work pack and work through the measurement challenges, all the way to page 22.

There is a 'Measurement Knowledge Mat' attached to this weeks blog if you need a reminder of the unit conversions.

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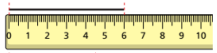
Independent Challenges:

Metric units

1 How long is each line?

Give your answer in both centimetres and millimetres.

a)



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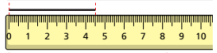

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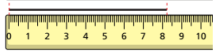

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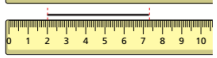
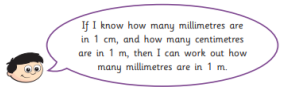


2 Complete the conversion. 1 cm = ☐ mm

3 Dexter is converting units of measure.



Complete Dexter's workings to show that he is correct.

1 m = ☐ cm

1 cm = ☐ mm

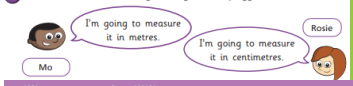
so, 1 m = ☐ mm

What other conversions could you work out using Dexter's method?

4 Complete the conversions.

a) 15 cm = ☐ mm
b) 12 m = ☐ cm
c) 16.5 m = ☐ cm
d) ☐ mm = 165 cm
e) ☐ cm = 0.2 m
f) 4.65 m = ☐ cm
g) 52,000 mm = ☐ cm
h) 52,000 mm = ☐ m

5 Mo and Rosie are measuring the length of the playground.



Kilograms and kilometres

1 The bar model shows that 1 kg is equal to 1,000 g.

Use the bar models to complete the conversions.

1 kg
1,000 g

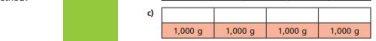
a)

3 kg = ☐ g

b)

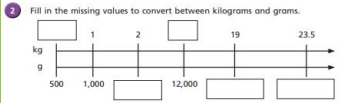
5 kg = ☐ g

c)

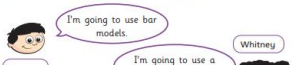


☐ kg = 4,000 g

2 Fill in the missing values to convert between kilograms and grams.



3 Dexter and Whitney are converting 27.5 kg into grams.



4 Tommy and Dora are converting 4 km into metres.

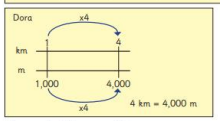
Here are their workings.

Tommy

1 km	1 km	1 km	1 km
1,000 m	1,000 m	1,000 m	1,000 m

4 km = 4,000 m

Dora



Whose method do you prefer?

Explain your answer.

5 Complete the conversions.

a) 18 kg = ☐ g
b) 18 km = ☐ m
c) 21,000 g = ☐ kg
d) 32,500 m = ☐ km
e) 11.5 km = ☐ m
f) ☐ g = 41.2 kg
g) ☐ g = 0.1 kg
h) 100 km = ☐ m

6 Complete the conversions.

a) $\frac{1}{2}$ kg = ☐ g
$\frac{1}{4}$ kg = ☐ g
$\frac{3}{4}$ kg = ☐ g

b) $\frac{1}{10}$ km = ☐ m
$\frac{1}{5}$ km = ☐ m
$\frac{3}{10}$ km = ☐ m

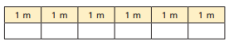
Millimetres and millilitres

1 The bar model shows that 1 m is equal to 1,000 mm.

Use the bar models to complete the conversions.

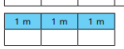
1 m
1,000 mm

a)



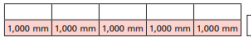
6 m = ☐ mm

b)



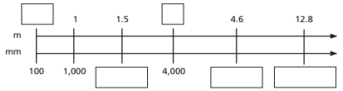
3 m = ☐ mm

c)

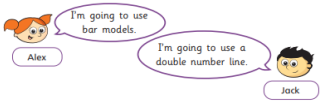


☐ m = 5,000 mm

2 Fill in the missing values to convert between metres and millimetres.

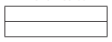


3 Alex and Jack are converting 3.5 m into millimetres.



a) Complete both methods to show that they get the same answer.

Alex's method



Jack's method

b) Complete the conversion.

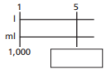
c) Whose method do you prefer?

Explain your answer.

4 Use the information to complete the representations and conversions.

1 litre = 1,000 ml

a)



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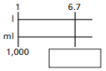
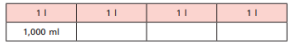


c)



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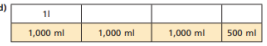

5 Complete the conversions.

a) 15 m = ☐ mm
b) 15 l = ☐ ml
c) 63,000 ml = ☐ l
d) 47,500 mm = ☐ m
e) 11.05 m = ☐ mm
f) ☐ ml = 71.25 l
g) ☐ mm = 0.1 m
h) 100 l = ☐ ml

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