L.O.: I can reactivate my prior knowledge (...).

Which unit of measurement would you use?

Answer and explain.

1. measure a bookcase
2. measure the length of a lorry
3. measure the distance of a F1-Race track
4. ...

Stem-Sentence:

To measure ..., I would use the unit ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

L.O.: I can reactivate my prior knowledge (...).

Check and compare your answers.

Which unit of measurement would you use?

1. measure a bookcase

   I would use cm or mm as I want to be precise and avoid plenty of decimal positions. Builders usually use mm to be very precise.

2. measure the length of a lorry

   Since precision is not of huge importance, I would use metres. (I guess it is somewhere between 8m and 20m (an average car is about 4m long and 1.5m wide and lorry trailers come in very different sizes).

3. measure the distance of a F1-Race track

   Again, precision to a mm and cm would be silly, metres and kilometres are best (e.g. Silverstone/UK is 5.901km).

Stem-Sentence:

To measure ..., I would use the unit ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

L.O.: I can convert between metric measurements.

What is the metric system?

https://www.bbc.co.uk/bitesize/topics/z4nsgk7/articles/zqf4cwx

Let's get practical!

I have built three towers of books. A is 35cm tall, B is 24.5cm and C is 6cm.

Now I need to find out ...

1. difference between tallest and smallest
2. difference between tallest and middle
3. difference between middle and smallest
4. the total of all towers
5. ...

Stem-Sentence:

... m equates to ... km, because ... ... km equates to ... m, because ...

... cm equates to ... m, because ... ... m equates to ... cm, because ...

... mm equates to ... cm, because ... ... cm equates to ... mm, because ...

... ml equates to ... L, because ... ... L equates to ... ml, because ...

Keywords:

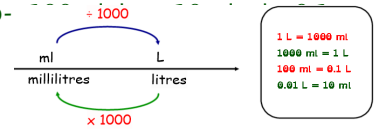
measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

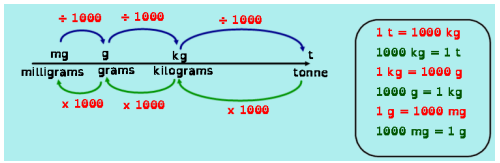
L.O.: I can convert between metric measurements.

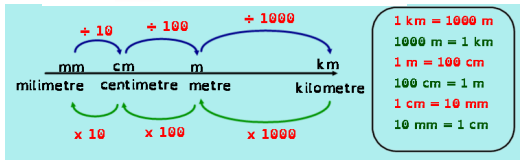
THE ANSWER

What is the metric system?

- introduced in France in 1795 (UK since 1962, mandatory since 1979),
- a decimal system using factors/multiples of 10/100/1000,
- universally used Science,
- uses the prefixes: kilo-, 1000; hecto- [illegible] nti-, 0.01; milli-, 0.001.







Let's get practical!

I have built three towers of books. A is 35cm tall, B is 24.5cm and C is 6cm.

Now I need to find out ...

1. difference between tallest and smallest
2. difference between tallest and middle
3. difference between middle and smallest

35 cm - 6 cm = 29 cm

35 cm - 24.5 cm = 10.5 cm

24.5 cm - 6 cm = 17.5 cm

35 cm + 24.5 cm + 6 cm = 65.5 cm

Stem-Sentence:

... m equates to ... km, because ...

... km equates to ... m, because ...

... cm equates to ... m, because ...

... m equates to ... cm, because ...

... mm equates to ... cm, because ...

... cm equates to ... mm, because ...

... ml equates to ... L, because ...

... L equates to ... ml, because ...

Keywords:

measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

L.O.: I can convert between metric measurements (distance).

Let's get practical! - Our turn.

Draw two lines. A is 76 cm long. B is 45 cm longer.

Your turn to get practical!

Draw two lines. A is 3.7 cm long. B is 6.2 cm longer.

Stem-Sentence:

... m equates to ... km, because ...

... km equates to ... m, because ...

... cm equates to ... m, because ...

... m equates to ... cm, because ...

... mm equates to ... cm, because ...

... cm equates to ... mm, because ...

Keywords:

measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

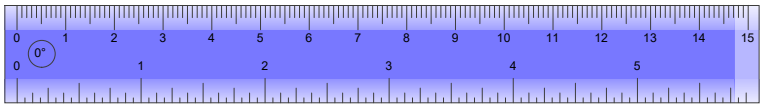
L.O.: I can convert between metric measurements (distance).

THE ANSWER

Let's get practical! - Our turn.

Draw two lines. A is 76 cm long. B is 45 cm longer.

76 cm + 45 cm = 121 cm



Your turn to get practical!

Draw two lines. A is 3.7 cm long. B is 6.2 cm longer.

3.7 cm + 6.2 cm = 9.8 cm

Stem-Sentence:

... m equates to ... km, because ...

... km equates to ... m, because ...

... cm equates to ... m, because ...

... m equates to ... cm, because ...

... mm equates to ... cm, because ...

... cm equates to ... mm, because ...

Keywords:

measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

L.O.: I can convert between metric measurements (distance).

Place the people in ascending order.

Tom
184 cm

Andrea
167 cm

Peter
214 cm

Lissa
151 cm

Convert their height into metres and millimetres.

Stem-Sentence:

... m equates to ... km, because ...
... cm equates to ... m, because ...
... mm equates to ... cm, because ...
because ...

... km equates to ... m, because ...
... m equates to ... cm, because ...
... cm equates to ... mm,

Keywords:
measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

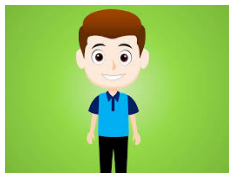
L.O.: I can convert between metric measurements (distance).

THE ANSWER: Place the people in ascending order.

1. ascending = from smallest to largest
2. 1cm = 10 mm 100cm = 1m

Lissa
151 cm
1510 mm
1.51 m

Andrea
167 cm
1670 mm
1.67 m



Tom
184 cm
1840 mm
1.84 m

Peter
214 cm
2140 mm
2.14 m

Stem-Sentence:

... m equates to ... km, because ...
... cm equates to ... m, because ...
... mm equates to ... cm, because ... because ...

... km equates to ... m, because ...
... m equates to ... cm, because ...
... cm equates to ... mm, because ...

Keywords:
measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

L.O.: I can convert between metric measurements (distance).

Investigation: For a woodworking project, Mr Robinson bought a plank of wood, which was 4.20m long.

From it, he cut two equal pieces of 1450mm.
Then, he cut off a piece that was 1/2 metre long.

How much wood has he got left?

Stem-Sentence:

... m equates to ... km, because ...
... km equates to ... m, because ...
... cm equates to ... m, because ...
... m equates to ... cm, because ...
... mm equates to ... cm, because ...
... cm equates to ... mm, because ...

Keywords:
measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

L.O.: I can convert between metric measurements (distance).

The answer: For a woodworking project, Mr Robinson bought a plank of wood, which was 4.20m long.

From it, he cut two equal pieces of 1450mm.
Then, he cut off a piece that was 1/2 metre long.

1. 4.2m = 4200mm
2. 2x 1450mm = 2900mm
3. 4200 mm - 2900mm = 1300mm
4. 1m = 100cm -> 1/2m = 50cm = 500mm

-> 1300mm - 500mm = 800mm

Mr Robinson will have 800mm (80cm) of wood left.

Stem-Sentence:

... m equates to ... km, because ...
... km equates to ... m, because ...
... cm equates to ... m, because ...
... m equates to ... cm, because ...
... mm equates to ... cm, because ...
... cm equates to ... mm, because ...

Keywords:
measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, ...

L.O.: I can convert between metric measurements (distance).

Task: Complete the tasks on your sheet.

Plenary

RL: Add your 3 top tips for converting between different units of measurement to the sheet:

1. ...
2. ...
3. ...

Stem-Sentence:

... m equates to ... km, because ... ... km equates to ... m, because ...

... cm equates to ... m, because ... ... m equates to ... cm, because ...

... mm equates to ... cm, because ... ... cm equates to ... mm,