

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



**THINK-PAIR-SHARE**

Agree or disagree? Explain your thinking.

Over the last weeks, I have collected 10p coins.  
Now that I have 20 of them, I am piling them up  
into a tower. Since each coin is 2 mm thick, my pile  
will be 2.2 centimetres tall.



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



Check!

Over the last weeks, I have collected 10p coins.  
Now that I have 20 of them, I am piling them up  
into a tower. Since each coin is 2 mm thick, my pile  
will be 2.2 centimetres tall.

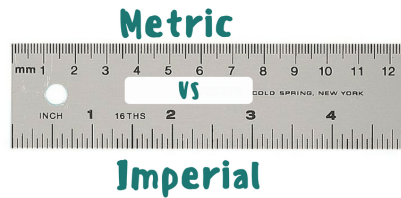


$$20 \times 2\text{mm} = 40\text{mm} = 4\text{cm}$$

I disagree with the statement, because 20 of  
the 10p coins will build up to 40mm, which is  
equivalent to 4cm.

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

what I know about the topic.



Distribution Map Of Metric And Imperial Measurement Systems



There are only very few countries that still seem to be using metric measurements frequently. However, if you speak to grandparents (from different countries), they probably can tell you about "old" measurements.

**Stem-Sentence:**

I know ..., because ...

**Keywords:**

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

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

~~What is hidden behind?~~

	Imperial System	Metric System
Speed	Miles per hour	Kilometres per hour.
Temperature	Fahrenheit	Celsius
Liquid	Gallons	Litres
Weight	Pounds	Kilograms
	Ounces	Grams
Distance	Inches	Centimetres
	Yards	Metres
	Miles	Kilometres

Stem-Sentence:

I know ..., because ...

Keywords:

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

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

Which ones did you know?

	Imperial System	Metric System
Speed	Miles per hour	Kilometers per hour.
Temperature	Fahrenheit	Celsius
Liquid	Gallon	Liter
Weight	Pounds	Kilograms
	Ounces	Grams
Distance	Inch	Centimeter
	Yard	Meter
	Mile	Kilometer

Stem-Sentence:

I know ..., because ...

Keywords:

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

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

One inch is approximately 2.54 centimetres

$$1 \text{ inch} \approx 2.54 \text{ cm}$$

Clue: All numbers are  
linked.

Your turn I

Flick forward to check,  
then back here again.

Your turn II

2 inches  $\approx$  \_\_\_\_\_ cm  
 \_\_\_\_\_ inches  $\approx$  25.4 cm  
 20 inches  $\approx$  \_\_\_\_\_ cm

30 inches  $\approx$  \_\_\_\_\_ cm  
 \_\_\_\_\_ inches  $\approx$  101.6 cm  
 300 inches  $\approx$  \_\_\_\_\_ cm

Stem-Sentence:

I know ... is equivalent to ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres,  
 millimetres, centimetres, metres, grams, milligrams, kilograms,  
 metric, imperial, inch, foot/feet, ...

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

One inch is approximately 2.54 centimetres

$$1 \text{ inch} \approx 2.54 \text{ cm}$$

Check I

$$2 \text{ inches} \approx 5.08 \text{ cm}$$

$$10 \text{ inches} \approx 25.4 \text{ cm}$$

$$20 \text{ inches} \approx 50.8 \text{ cm}$$

Check II

$$30 \text{ inches} \approx 76.2 \text{ cm}$$

$$40 \text{ inches} \approx 101.6 \text{ cm}$$

$$300 \text{ inches} \approx 762 \text{ cm}$$

**Stem-Sentence:**

I know ... is equivalent to ..., because ...

**Keywords:**

measurement, distance, mass, capacity, kilometres,  
millimetres, centimetres, metres, grams, milligrams, kilograms,  
metric, imperial, inch, foot/feet, ...

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

One kilogram is approximately 2.2 pounds

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

Your turn I

Flick forward to check,  
then back here again.

Your turn II

$$2\text{kg} \approx \text{ \_\_\_\_ } \text{ lbs}$$

$$4\text{kg} \approx \text{ \_\_\_\_ } \text{ lbs}$$

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

$$\text{ \_\_\_\_ } \text{ kg} \approx 66\text{lbs}$$

$$3\text{kg} \approx \text{ \_\_\_\_ } \text{ lbs}$$

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

$$\text{ \_\_\_\_ } \text{ kg} \approx 44\text{lbs}$$

$$\text{ \_\_\_\_ } \text{ kg} \approx 88 \text{ lbs}$$

Stem-Sentence:

I know ... is equivalent to ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres,  
millimetres, centimetres, metres, grams, milligrams, kilograms,  
metric, imperial, inch, foot/feet, pounds/lbs,



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

One kilogram is approximately 2.2 pounds

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

Check I

$$2 \text{ kg} \approx 4.4 \text{ lbs}$$

$$4 \text{ kg} \approx 8.8 \text{ lbs}$$

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

$$30 \text{ kg} \approx 66 \text{ lbs}$$

Check II

$$3 \text{ kg} \approx 6.6 \text{ lbs}$$

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

$$20 \text{ kg} \approx 44 \text{ lbs}$$

$$40 \text{ kg} \approx 88 \text{ lbs}$$

Stem-Sentence:

I know ... is equivalent to ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres,  
millimetres, centimetres, metres, grams, milligrams, kilograms,  
metric, imperial, inch, foot/feet, pounds/lbs,

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

$$568 \text{ ml} = 1 \text{ pint}$$

Your turn I

Flick forward to check,  
then back here again.

Your turn II

$$\begin{aligned} 2 \text{ pts} &= \text{ \_\_\_\_ } \text{ ml} \\ \text{ \_\_\_\_ } \text{ pts} &= 5680 \text{ ml} \\ 4 \text{ pts} &= \text{ \_\_\_\_ } \text{ ml} \end{aligned}$$

$$\begin{aligned} 5 \text{ pts} &= \text{ \_\_\_\_ } \text{ ml} \\ \text{ \_\_\_\_ } \text{ pts} &= 56,800 \text{ ml} \\ 20 \text{ pts} &= \text{ \_\_\_\_ } \text{ ml} \end{aligned}$$

Stem-Sentence:

I know ... is equivalent to ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres,  
millimetres, centimetres, metres, grams, milligrams, kilograms,  
metric, imperial, inch, foot/feet, pounds/lbs, pints,

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

$$568 \text{ ml} = 1 \text{ pint}$$

Check I

$$\begin{aligned} 2 \text{ pts} &= 1136 \text{ ml} \\ 10 \text{ pts} &= 5680 \text{ ml} \\ 4 \text{ pts} &= 2272 \text{ ml} \end{aligned}$$

Check II

$$\begin{aligned} 5 \text{ pts} &= 2840 \text{ ml} \\ 100 \text{ pts} &= 56,800 \text{ ml} \\ 20 \text{ pts} &= 11,360 \text{ ml} \end{aligned}$$

Stem-Sentence:

I know ... is equivalent to ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres,  
millimetres, centimetres, metres, grams, milligrams, kilograms,  
metric, imperial, inch, foot/feet, pounds/lbs, pints,

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

**Investigation:** The company that supplies Paul, the milkman, calculates their milk in the metric system, but the bottle size follows the imperial system. Every Monday, Paul takes 1 pint of milk to Miss DeSaulles, while on Wednesday and Friday he takes her two pints of milk.



The invoice states that she receives 2840 ml milk every week.

Is this correct or incorrect? Explain how you know.

Stem-Sentence:

I know ... is equivalent to ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres, millimetres, centimetres, metres, grams, milligrams, kilograms, metric, imperial, inch, foot/feet, pounds/lbs, pints,

568 ml = 1 pint

1 inch  $\approx$  2.54 cm

1 kg  $\approx$  2.2 lbs

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

**Investigation:** The company that supplies Paul, the milkman, calculates their milk in the metric system, but the bottle size follows the imperial system. Every Monday, Paul takes 1 pint of milk to Miss DeSaulles, while on Wednesday and Friday he takes her two pints of milk.



The invoice states that she receives 2840 ml milk every week.

Is this correct or incorrect? Explain how you know.

$$1\text{pt} + 2\text{pt} + 2\text{pt} = 5\text{pt (per week)}$$

$$5 \times 568\text{ml} = 2840\text{ml}$$

The statement is correct, because 5pints equal 2840ml.

Stem-Sentence:

I know ... is equivalent to ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres,  
millimetres, centimetres, metres, grams, milligrams, kilograms,  
metric, imperial, inch, foot/feet, pounds/lbs, pints,

$$568 \text{ ml} = 1 \text{ pint}$$

$$1 \text{ inch} \approx 2.54 \text{ cm}$$

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

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



**Task:** Complete the tasks on your sheet.



Plenary



RL: Add 3 top tips for converting between metric and imperial units of measurement to your electronic sheet:

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

**Extension:** Write a similar problem to "Diving Deeper" (swap+solve).

Stem-Sentence:

I know ... is equivalent to ..., because ...

Keywords:

measurement, distance, mass, capacity, kilometres,  
millimetres, centimetres, metres, grams, milligrams, kilograms,  
metric, imperial, inch, foot/feet, pounds/lbs, pints,