





Steps to Success

Lockdown	
Date	24.02.21
Subject/s	Maths
Learning Objective 	To convert between metric and imperial measures

		SA 	TA 
Success Criteria 	I know which measurements are imperial and which are metric		
	I know 1 inch ~ 2.5cm 1 foot~ 30cm 1 yard ~ 90cm 1 ounce ~ 30g 1kg ~ 2.2lbs 1 mile ~ 1.6km 8km ~ 5miles 1 pint ~ 0.6l 1 gallon ~ 4.5l		
	I know use my knowledge of multiples to work out conversions		
Support	Independent	Adult Support ( )	Group Work

Pre-task:

A milkman delivers milk, 4 times a week.  
 On each delivery day, he delivers three pints of milk to the doctors' surgery  
 How many millilitres of milk does the surgery have delivered each week?



If one gallon is equivalent to 8 pints,

- How many gallons are equivalent to 64 pints?
- How many pints are equivalent to 15 gallons?
- How many gallons are equivalent to 2 pints?

## Questions

### Capacity

I can use approximate equivalences between metric and imperial units.

1 litre  $\approx$  1.75 pints or 0.57 litres  $\approx$  1 pint

Complete this table:

litres	pints
	3.5
5	
1.14	
	3
10	

1 litre  $\approx$  0.22 gallons or 4.5 litres  $\approx$  1 gallon

Complete this table:

litres	gallons
2	
	0.66
9	
	5
10	

### Distance and Length

I can use approximate equivalences between metric and imperial units.

2.5 centimetre  $\approx$  1 inch, 12 inches = 1 foot

Complete this table.

centimetre (cm)	inches (")	feet (')
	2	
7.5		
	4	
		1
90		

Convert these heights between metres and feet and inches.

<b>metres (m)</b>	<b>inches (")</b>	<b>feet and inches (' ")</b>
1.1		
1.25		
		3' 4"
		4' 6"
1.85		6' 2"

### Weight and Mass

I can use approximate equivalences between metric and imperial units.

0.45 kilogram  $\approx$  1 lb (pound), 1 kilogram = 2.2 lb (pounds)

Complete this table.

<b>kilograms (kg)</b>	<b>pounds (lb)</b>
	2
2	
	3
3	
	22

Answers

<b>litres</b>	<b>pints</b>
<b>2</b>	3.5
5	<b>8.75</b>
1.14	<b>2</b>
<b>1.71</b>	3
10	<b>17.5</b>

<b>litres</b>	<b>gallons</b>
2	<b>0.44</b>
<b>3</b>	0.66
9	<b>2</b>
<b>22.5</b>	5
10	<b>2.2</b>

<b>centimetre (cm)</b>	<b>inches (")</b>	<b>feet (')</b>
<b>5</b>	2	<b>1/6</b>
7.5	<b>3</b>	<b>1/4</b>
<b>10</b>	4	<b>1/3</b>
<b>30</b>	<b>12</b>	1
90	<b>36</b>	<b>3</b>

<b>metres (m)</b>	<b>inches (")</b>	<b>feet and inches (' ")</b>
1.1	<b>44</b>	<b>3'8"</b>
1.25	<b>50</b>	<b>4'2"</b>
<b>1</b>	<b>40</b>	<b>3' 4"</b>
<b>1.35</b>	<b>54</b>	<b>4' 6"</b>
1.85	<b>74</b>	<b>6' 2"</b>

<b>kilograms (kg)</b>	<b>pounds (lb)</b>
0.9	2
2	4.4
1.35	3
3	6.6
10	22

## Problem Solving and Reasoning

Explain it!

Jeni has two children, Owen and Caitlin.



- Owen weighed 8.8 lbs when he was born.
- Caitlin weighed 3.5 kg when she was born.

Who was heavier, Owen or Caitlin?  
Explain your answer.

Use it!

Kate and Saira weigh 185 lbs.  
Saira and Lucy weigh 186 lbs.  
Kate and Lucy weigh 201 lbs.



How much do Kate, Saira and Lucy weigh altogether?

Convert your answer into kilograms.

Use it!

David is 6 foot 2 inches tall.



Annabelle is 162 cm tall.

Who is taller and by how much?

## Answers

2.2lbs ~ 1kg  
8.8lbs ~ 4kg  
Owen ~ 4kg therefore he is heavier

Or  
1kg ~ 2.2lbs  
3.5kg ~ 7.7lbs  
Caitlin ~ 7.7lbs

$185 + 186 + 201 = 572\text{lbs}$   
 $572 = K + S + S + L + K + L$  so two of each  
person therefore divide by 2  
All three weigh  $572 / 2 = 286\text{lbs}$

2.2lbs ~ 1kg  
286lbs ~ 130kg

Annabelle 162cm

30cm ~ 1 foot  
2.5cm ~ 1 inch  
David 6 feet 2 inches  
180cm ~ 6 feet  
5cm ~ 2 inches  
David ~ 185cm

Therefore David is taller by 23cm

### Further Challenge

Make a revision page in your book to show everything you know about measurement so far

Include some examples of problems