

To be able to convert between g and kg and m and km

MathShed

Starter:
Complete the bar models provided.

1,000 g	1,000 g	1,000 g	1,000 g
1 kg	1 kg		

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

What's the same? What's different?
Explain your answer.

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Activity 1:
Complete the bar models provided.

1,000 m			
1 km	1 km	1 km	

1 kg	1 kg	1 kg	1 kg	1 kg
1,000 g				

3 km = ____ m

5 kg = ____ g

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Activity 2:
Use the scale provided to help you convert between m and km.

___ km	___ km	2 km	___ km	___ km	21.5 km
250 m	1,000 m	___ m	7,500 m	18,000 m	___ m

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Activity 3:
Complete the conversions below.

___ km = 16,000 m	14.5 km = ____ m
___ kg = 16,000 g	____ g = 62.3 kg
23,000 m = __ km	___ km = 300 m
23,500 g = __ kg	____ g = 100 kg

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Activity 4:
Complete the conversions below.

$\frac{1}{2}$ km = ____ m	$\frac{1}{10}$ kg = ____ g	$\frac{1}{20}$ kg = ____ g
$\frac{1}{4}$ km = ____ m	$\frac{1}{5}$ kg = ____ g	$\frac{19}{20}$ kg = ____ g
$\frac{3}{4}$ km = ____ m	$\frac{7}{10}$ kg = ____ g	$\frac{11}{20}$ kg = ____ g

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Activity 5:
Use the comparison symbols <, > and = to complete the statements below.

0.25 kg	○	200 g
3.9 km	○	4,200 m
6,000 m + 3 km	○	5.5 km + 3,500 m
$\frac{3}{10}$ kg + $\frac{7}{10}$ kg + 985 g	○	958 g + 1 kg

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Activity 6:

Solve the word problems below.

- A lap of a running track is 400 m.
How far would Ahmed have run if he ran eight laps?
Give your answer as a km measurement.
- A sack of potatoes weighs 700 g.
How much do eight sacks of potatoes weigh?
Give your answer as a kg measurement.

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Activity 7:

Ruth buys 4.7 kg of coffee and 1,750 g of sugar.



She pays with a \$20 note.

How much change does she receive?
Explain your answer.

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Activity 8:

Yasmin manages to weigh out and bag up the first 200 g bag of coffee beans in 28 seconds.

If she continues to bag up the beans at the same rate, how long will it take her to weigh out and bag up 5 kg of coffee beans.

Explain your answer, giving your answer as a measurement in minutes and seconds.

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Evaluation:



The only way to convert between 6 kg and equivalent grams is to use a bar model.

Do you agree?
Explain your answer.