

# Varied Fluency

## Step 1: Kilograms and Kilometres

### National Curriculum Objectives:

Mathematics Year 5: (5M5) [Convert between different units of metric measure \(for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre\)](#)

### Differentiation:

**Developing** Questions to support converting kilometres and metres; kilograms and grams; using multiples of 10,000 or 1,000.

**Expected** Questions to support converting kilometres and metres; kilograms and grams; including numbers to 1 decimal place and some use of fractions.

**Greater Depth** Questions to support converting kilometres and metres; kilograms and grams; including numbers up to 2 decimal places and fractions, including using zero as a place holder.

More [Year 5 and Year 6 Converting Units](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

## Kilograms and Kilometres

1a. Check each of the conversions and correct any that are wrong.

$9\text{km} = 900\text{m}$

$20,000\text{g} = 20\text{kg}$

$3,000\text{g} = 30\text{kg}$

$8.0\text{kg} = 8,000\text{g}$



5 VF

## Kilograms and Kilometres

1b. Check each of the conversions and correct any that are wrong.

$4,000\text{m} = 40\text{km}$

$1,000\text{g} = 1\text{kg}$

$6.0\text{kg} = 6,000\text{g}$

$8\text{kg} = 8,000\text{g}$



5 VF

2a. Complete the table:

	True or false?
$3\text{kg} < 2,000\text{g}$	
$2\text{kg} < 4,000\text{g}$	
$4\text{km} = 4,000\text{m}$	
$8,000\text{m} > 7\text{km}$	



5 VF

2b. Complete the table:

	True or false?
$7,000\text{g} > 7\text{kg}$	
$3\text{km} = 30,000\text{m}$	
$9\text{km} > 900\text{m}$	
$6,000\text{m} > 6\text{km}$	



5 VF

3a. Select a number from the box to make these statements correct.

$3\text{kg} < \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}} > 2\text{kg}$

$80\text{km} = \underline{\hspace{2cm}} \quad 4,000\text{m} > \underline{\hspace{2cm}}$

4,000	80,000	3,000	2
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Include the correct unit of measurement.



5 VF

3b. Select a number from the box to make these statements correct.

$4\text{kg} > \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}} = 90,000\text{g}$

$8,000\text{m} > \underline{\hspace{2cm}} \quad 6\text{km} < \underline{\hspace{2cm}}$

2,000	6	7,000	90
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Include the correct unit of measurement.



5 VF

4a. Jessica swims for 3km and runs for 5km.

How many metres does she complete altogether?



5 VF

4b. Louis mixes 2,000g of flour and 1,000g of sugar in a bowl.

How much does the sugar and flour weigh altogether in kilograms?



5 VF

## Kilograms and Kilometres

5a. Check each of the conversions and correct any that are wrong.

$$3,000\text{m} = 3.0\text{km} \quad 700\text{m} = 7.0\text{km}$$

$$1.5\text{km} = 1,500\text{m} \quad 2.7\text{kg} = 27,000\text{g}$$

$$3,300\text{g} = 3.3\text{kg} \quad 1,100\text{g} = 1.1\text{kg}$$



5 VF

## Kilograms and Kilometres

5b. Check each of the conversions and correct any that are wrong.

$$7.3\text{kg} = 7,300\text{g} \quad 500\text{m} = 0.5\text{km}$$

$$4,900\text{m} = 49\text{km} \quad 8.8\text{kg} = 8,800\text{g}$$

$$20,200\text{m} = 2.0\text{km} \quad 3,200\text{m} = 3.2\text{km}$$



5 VF

6a. Complete the table:

	True or false?
$3\text{kg} > 2,500\text{g}$	
$27\text{kg} > 2,070\text{g}$	
$4.2\text{km} = 420\text{m}$	
$420\text{m} > 4.2\text{km}$	



5 VF

6b. Complete the table:

	True or false?
$7,000\text{g} > 6.5\text{kg}$	
$3\text{km} = 30,000\text{m}$	
$9\text{km} > 900\text{m}$	
$6,000\text{m} > 6.1\text{km}$	



5 VF

7a. Select a number from the box to make these statements correct.

$$3.5\text{kg} < \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}} > 27\text{kg}$$

$$9.8\text{km} > \underline{\hspace{2cm}} \quad 4,200\text{m} = \underline{\hspace{2cm}}$$

4.2	9,700	5,500	31,000
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Include the correct unit of measurement.



5 VF

7b. Select a number from the box to make these statements correct.

$$3.4\text{kg} > \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}} = 9,900\text{g}$$

$$800\text{m} > \underline{\hspace{2cm}} \quad 6.7\text{km} < \underline{\hspace{2cm}}$$

0.6	7,600	9.9	3,300
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Include the correct unit of measurement.



5 VF

8a. If Miles uses  $\frac{3}{10}$  of a 1kg bag of flour.

How many grams are left in the bag?



5 VF

8b. Harvey travels  $\frac{3}{10}$  km by bike. He then walks 5km.

How many metres does he travel?



5 VF

## Kilograms and Kilometres

9a. Check each of the conversions and correct any that are wrong.

$$3,500\text{m} = 3.05\text{km} \quad 560\text{m} = 0.56\text{km}$$

$$1.76\text{km} = 1,760\text{m} \quad 0.43\text{kg} = 4,300\text{g}$$

$$5,510\text{g} = 5.51\text{kg} \quad 12,060\text{g} = 12.06\text{kg}$$



5 VF

## Kilograms and Kilometres

9b. Check each of the conversions and correct any that are wrong.

$$7.03\text{kg} = 7,030\text{g} \quad 120\text{m} = 0.12\text{km}$$

$$4,970\text{m} = 49.7\text{km} \quad 0.23\text{kg} = 230\text{g}$$

$$30,300\text{m} = 33\text{km} \quad 3,210\text{m} = 3.21\text{km}$$



5 VF

10a. Complete the table:

	True or false?
$3.54\text{kg} < 3,450\text{g}$	
$27.64\text{kg} < 26,740\text{g}$	
$3.02\text{km} = 3,020\text{m}$	
$4,230\text{m} < 4.32\text{km}$	



5 VF

10b. Complete the table:

	True or false?
$9.01\text{km} < 9,100\text{m}$	
$0.38\text{km} = 3,800\text{m}$	
$3.13\text{kg} < 3,140\text{g}$	
$3,410\text{g} < 3.43\text{kg}$	



5 VF

11a. Select a number from the box to make these statements correct.

$$6.78\text{kg} < \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}} > 2.73\text{kg}$$

$$9,800\text{m} > \underline{\hspace{2cm}} \quad 260\text{m} = \underline{\hspace{2cm}}$$

7,430	8.08	0.26	9,850
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Include the correct unit of measurement.



5 VF

11b. Select a number from the box to make these statements correct.

$$4.42\text{km} > \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}} = 950\text{m}$$

$$720\text{g} > \underline{\hspace{2cm}} \quad 2.37\text{kg} < \underline{\hspace{2cm}}$$

5,670	0.71	0.95	3,320
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Include the correct unit of measurement.



5 VF

12a. Grace throws a ball 100m and it rolls for a further 10m.

How far does the ball travel in kilometres?



5 VF

12b. Suha has  $3\frac{7}{10}$  kg of rice.

How many grams of rice does she have?



5 VF

## Varied Fluency Kilograms and Kilometres

### Developing

- 1a.  $9\text{km} = 900\text{m}$  corrected to  $9\text{km} = 9,000\text{m}$ .  
 $3,000\text{g} = 30\text{kg}$  corrected to  $3,000\text{g} = 3\text{kg}$  or  $30,000\text{g} = 30\text{kg}$ .  
2a. False, True, True, True.  
3a.  $3\text{kg} < 4,000\text{g}$ ,  $3,000 > 2\text{kg}$ ,  
 $80\text{km} = 80,000\text{m}$ ,  $4,000\text{m} > 2\text{km}$   
4a.  $8,000\text{m}$

### Expected

- 5a.  $700\text{m} = 7.0\text{km}$  corrected to  $700\text{m} = 0.7\text{km}$  or  $7,000\text{m} = 7.0\text{km}$ .  
 $2.7\text{kg} = 27,000\text{g}$  corrected to  $2.7\text{kg} = 2,700\text{g}$  or  $27\text{kg} = 27,000\text{g}$ .  
6a. True, True, False, False.  
7a.  $3.5\text{kg} < 5,500\text{g}$ ,  $31,000\text{g} > 27\text{kg}$ ,  
 $9.8\text{km} > 9,700\text{m}$ ,  $4,200\text{m} = 4.2\text{km}$ .  
8a.  $700\text{g}$ .

### Greater Depth

- 9a.  $3,500\text{m} = 3.05\text{km}$  corrected to  $3,500\text{m} = 3.5\text{km}$  or  $3,050\text{km} = 3.05\text{km}$ .  
 $0.43\text{kg} = 4,300\text{g}$  corrected to  $0.43\text{kg} = 430\text{g}$  or  $4.3\text{kg} = 4,300\text{g}$ .  
10a. False, False, True, True.  
11a.  $6.78\text{kg} < 9,850\text{g}$ ,  $7,430\text{m} > 2.73\text{km}$ ,  
 $9,800\text{m} > 8.08\text{km}$ ,  $260\text{m} = 0.26\text{km}$ .  
12a.  $0.11\text{km}$ .

## Varied Fluency Kilograms and Kilometres

### Developing

- 1b.  $4,000\text{m} = 40\text{km}$  corrected to  $4,000\text{m} = 4\text{km}$  or  $40,000\text{m} = 40\text{km}$ .  
 $80\text{kg} = 8,000\text{g}$  corrected to  $80\text{kg} = 80,000\text{g}$  or  $8\text{kg} = 8,000\text{g}$ .  
2b. False, False, True, False  
3b.  $4\text{kg} > 2,000\text{g}$ ,  $90\text{kg} = 90,000\text{g}$ ,  
 $8,000\text{m} > 6\text{km}$ ,  $6\text{km} < 7,000\text{m}$   
4b.  $3\text{kg}$

### Expected

- 5b.  $4,900\text{m} = 49\text{km}$  corrected to  $4,900\text{m} = 4.9\text{km}$  or  $49,000 = 49\text{km}$ .  
 $20,200\text{m} = 2.0\text{km}$  corrected to  $20,200\text{m} = 20.2\text{km}$  or  $2,000\text{m} = 2.0\text{km}$   
6b. True, False, True, False.  
7b.  $3.4\text{kg} > 3,300\text{g}$ ,  $9.9\text{kg} = 9,900\text{g}$ ,  
 $800\text{m} > 0.6\text{km}$ ,  $6.7\text{km} < 7,600\text{m}$   
8b.  $5,300\text{m}$ .

### Greater Depth

- 9b.  $4,970\text{m} = 49.7\text{km}$  corrected to  $4,970\text{m} = 4.97\text{km}$  or  $49,700\text{m} = 49.7\text{km}$ .  
 $30,300\text{m} = 33\text{km}$  corrected to  $30,300\text{m} = 30.3\text{km}$  or  $33,000\text{m} = 33\text{km}$ .  
10b. True, False, True, True.  
11b.  $4.42\text{km} > 3,320\text{m}$ ,  $0.95\text{km} = 950\text{m}$ ,  
 $720\text{g} > 0.71\text{kg}$ ,  $2.37\text{kg} < 5,670\text{g}$ .  
12b.  $3,700\text{g}$ .