Homework/Extension
Step 1: Metric Measures

National Curriculum Objectives:

Mathematics Year 6: (6M5) Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places

Mathematics Year 6: (6M9) Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Complete the sentences using the different units of measures provided. Use of whole numbers.
Expected Complete the sentences using the different units of measures provided. Use of whole numbers and some decimals and fractions.
Greater Depth Complete the sentences using the different units of measures provided. Use of whole numbers, decimals and fractions. Some square and cube numbers included.

Questions 2, 5 and 8 (Varied Fluency)
Developing Group the given statements into the correct columns. Use of whole numbers.
Expected Group the given statements into the correct columns. Use of whole numbers and some decimals and fractions.
Greater Depth Group the given statements into the correct columns. Use of whole numbers, decimals and fractions. Some square and cube numbers included.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Agree or disagree with a statement. Use of whole numbers.
Expected Agree or disagree with a statement. Use of whole numbers and some decimals and fractions.
Greater Depth Agree or disagree with a statement. Use of whole numbers, decimals and fractions. Some square and cube numbers included.

More Year 6 Converting Units resources.

Did you like this resource? Don't forget to review it on our website.

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Metric Measures

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1. Use the different metric measurements to complete the sentences below.

100mm	2L	600m

A. The picture frame was _____ in length.

B. Hugo cycled _____.

C. Madison bought a _____ bottle of water on the school trip.

⭐ D

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2. Sort the statements into the correct columns.

A. A ruler that is 30cm	B. A horse that weighs 600kg	C. 2km

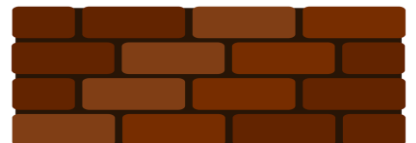| Mass	Distance	Length

⭐ D

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3. Jasper is measuring the height and length of a wall.

He says,

> The height of the wall is 2m tall; the length of it is more than double the height. I will be able to measure the length in mm, cm or m with a ruler.

Is Jasper correct? Explain why.

⭐ D

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Homework/Extension – Metric Measures – Year 6 Developing

Metric Measures

4. Use the different metric measurements to complete the sentences below.

| 8.5cm | 0.9L | $2\frac{1}{4}$ km | 0.01km | 500m |

A. Jordan ran a _____ sprint.

B. Kimberly measured her pencil; it was _____ long.

C. Kenny lives _____ away from the school.

5. Sort the statements into the correct columns.

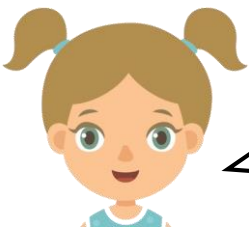| A. A ruler that is 30cm. | B. A car that has travelled 9,250m | C. $\frac{1}{2}$ of 2km | D. A can of pop that is half-empty | E. A ball rolling down a hill |

Volume	Distance	Length

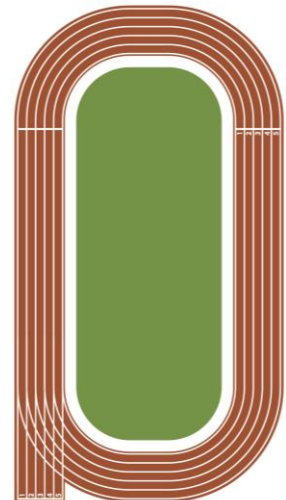**6. Yuna is recording the distance she ran during a race.**

She says,

> The total distance of the track is equal to half of 580m; I ran around the track 6 times. I can measure my total distance in m, km or kg.

Is Yuna correct? Explain why.

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Homework/Extension – Metric Measures – Year 6 Expected

Metric Measures

7. Use the different metric measurements to complete the sentences below.

| 15.5m² | 17.51kg | $5\frac{2}{6}$ m³ | 66m³ | 0.95L |

A. Barney drank _____ of water.

B. The area of the wall was _____ .

C. Ted's swimming pool holds _____ of water.

GD

VF
HW/Ext

8. Sort the statements into the correct columns.

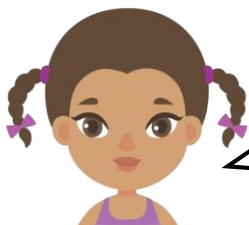| A. 0.09mm | B. $7\frac{2}{5}$ m³ | C. $\frac{7}{8}$ of 3km | D. A pond being filled with water | E. A milk bottle that is half-empty |

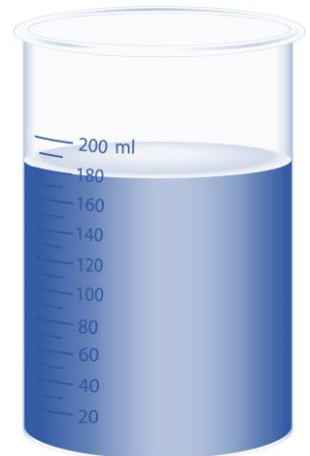| Volume	Distance	Length

GD

VF
HW/Ext

9. Willow is using a beaker to measure the amount of water for a science experiment.

She says,

> The capacity of this beaker is 180ml; I will be using 3 beakers with the same amount of water in each one. I will use more than 540ml of water in total.

200 ml
180
160
140
120
100
80
60
40
20

Is Willow correct? Explain why.

GD

RPS
HW/Ext

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Homework/Extension – Metric Measures – Year 6 Greater Depth

Homework/Extension
Metric Measures

Developing
1. A. 100mm; B. 600m; C. 2L
2. Mass – B; Distance – C; Length – A
3. Various answers, for example: Jasper is incorrect. The length of the wall will be more than 4m because it is double the height. Although it is possible to measure the length of the wall in mm and cm, it would take too long; measuring the wall in metres with a metre stick or a tape measure would be the most sensible choice.

Expected
4. A. 500m; B. 8.5cm; C. $2\frac{1}{4}$ km
5. Volume – D; Distance – B, C and E; Length – A
6. Various answers, for example: Yuna is incorrect. The track is equal to 290m so she will be able to measure in m or km (which are both units to measure distance), but not kg as they are used to measure mass, not distance. If she ran around the track 6 times, the total distance would be 1,740m or 1.74km.

Greater Depth
7. A. 0.95L; B. 15.5m^2; C. 66m^3
8. Volume – B, D and E; Distance – C; Length – A
9. Various answers, for example:
Willow is incorrect. She has confused the capacity of the beaker with the volume of it; the capacity of the beaker is 200ml, whereas the volume of the beaker is 180ml. In addition, if she used 3 beakers with the same amount of water in each, she will use exactly 540ml of water, not more than 540ml.

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