

Varied Fluency

Step 1: Metric Measures

National Curriculum Objectives:

Mathematics Year 6: (6M6) [Convert between miles and kilometres](#)

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](#)

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](#)

Differentiation:

Developing Questions to support using context to make accurate estimations of metric measures of length, mass, volume and time using whole numbers.

Expected Questions to support using context to make accurate estimations of metric measures of length, mass, volume and time using whole numbers and some decimals.

Greater Depth Questions to support using context to make accurate estimations of metric measures of length, mass, volume and time when measuring more than one item, using whole numbers and decimals.

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

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

Metric Measures

1a. Match the units of measurement to the correct purpose.

weight

centimetres

length

grams

kilometres



6 VF

Metric Measures

1b. Match the units of measurement to the correct purpose.

weight

millimetres

length

metres

kilograms



6 VF

2a. Find the odd one out.

A. 25cm

B. Length of a football pitch

C. 10km

D. 100g



6 VF

2b. Find the odd one out.

A. Weight of a bag of potatoes

B. 200g

C. 50m

D. 2kg



6 VF

3a. Which of the following objects could be 30cm long?

playground

ruler

table



6 VF

3b. Which of the following objects could weigh 500g?

teacher

bag of carrots

horse

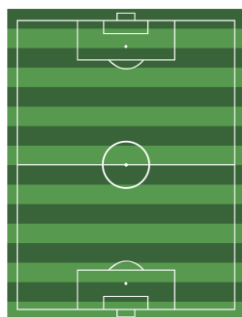


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4a. Match the most accurate estimate to the item.

100m long

2km long



6 VF

4b. Match the most accurate estimate to the item.

weighs 500kg

weighs 5kg



6 VF

Metric Measures

5a. Match the units of measurement to the correct purpose.

weight

millimetres

length

litres

volume

kilometres

grams



6 VF

Metric Measures

5b. Match the units of measurement to the correct purpose.

weight

millilitres

length

kilograms

volume

metres

centimetres



6 VF

6a. Find the odd one out.

A. weight of a bag of apples

B. 1kg

C. 250km

D. 500g



6 VF

6b. Find the odd one out.

A. 500ml

B. volume of a bottle

C. 10litres

D. 150cm



6 VF

7a. Which of the following objects could be 1.5m high?

table

teacher

dog



6 VF

7b. Which of the following objects could have a volume of 2 litres?

pool

bath

lemonade bottle



6 VF

8a. Match the most accurate estimates to the item.

1 metre high

weighs 6g

weighs 6kg



6 VF

8b. Match the most accurate estimates to the item.

Volume 1 litre

1.5m tall

weighs 1kg



6 VF

Metric Measures

9a. Match the units of measurement to the correct purpose.

weight

tonnes

length

millilitres

distance

kilometres

volume

grams

area

km²

m³



6 VF

Metric Measures

9b. Match the units of measurement to the correct purpose.

weight

cm³

length

centimetres

distance

centilitres

volume

mm²

area

metres

kilograms



6 VF

10a. Find the odd one out.

A. Area of a rugby pitch

B. 50cm³

C. 2.5km²

D. 100.25cm²



6 VF

10b. Find the odd one out.

A. 1.5l

B. 200cl

C. 357mm

D. 125cm³



6 VF

11a. Which of the following objects could hold a volume of 80 litres?

pool

bath

milk bottle



6 VF

11b. Which of the following objects could have an area of 7,140m²?

theme park

classroom

football pitch



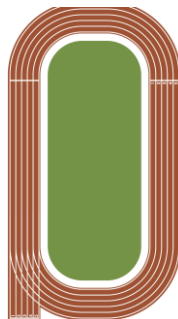
6 VF

12a. Match the most accurate estimates to the item.

400m circumference

100m long

150cm³



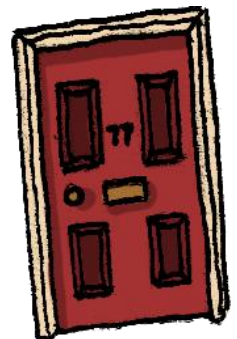
6 VF

12b. Match the most accurate estimates to the item.

1.8m tall

10m² area

3m² area



6 VF

Varied Fluency Metric Measures

Developing

- 1a. Weight – grams; length – centimetres, kilometres
- 2a. 100g – the others are all length
- 3a. ruler
- 4a. 100m long

Expected

- 5a. Weight – grams; length – kilometres, millimetres; volume – litres
- 6a. 250km – the others are all weight.
- 7a. teacher
- 8a. 1 metre high, weighs 6kg

Greater Depth

- 9a. Weight – tonnes, grams; distance – kilometres; volume – millilitres, m^3 ; area – km^2
- 10a. $50cm^3$ – the others are all related to area.
- 11a. bath
- 12a. 400m circumference, 100m long

Varied Fluency Metric Measures

Developing

- 1b. Weight – kilograms; length – millimetres, metres
- 2b. 50m – the others are all weights
- 3b. bag of carrots
- 4b. Weighs 500kg

Expected

- 5b. Weight – kilograms; length – centimetres and metres; volume – millilitres
- 6b. 150cm – the others are all volume.
- 7b. lemonade
- 8b. 1 litre volume, weighs 1kg

Greater Depth

- 9b. Weight – kilograms; length – centimetres, metres; volume – centilitres, cm^3 ; area – mm^2
- 10b. 357mm – the others are all volumes
- 11b. football pitch
- 12b. 1.8m tall, $3m^2$ area