

Measurement

Selected National Curriculum Programme of Study Statements

Pupils should be taught to:

- measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- add and subtract amounts of money to give change, using both £ and p in practical contexts
- tell and write the time from an analogue clock, and 12 and 24-hour clock

The Big Ideas

Developing benchmarks to support estimation skills is important as pupils become confident in their use of standard measures. The height of a door frame, for example, is approximately 2 metres, and a bag of sugar weighs approximately 1 kilogram.

Mastery Check

Please note that the following columns provide indicative examples of the sorts of tasks and questions that provide evidence for mastery and mastery with greater depth of the selected programme of study statements. Pupils may be able to carry out certain procedures and answer questions like the ones outlined but the teacher will need to check that pupils really understand the idea by asking questions such as 'Why?', 'What happens if ...?', and checking that pupils can use the procedures or skills to solve a variety of problems.

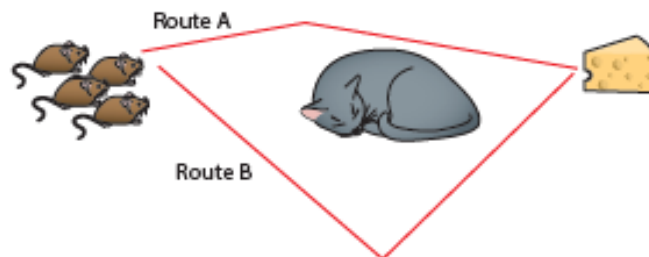
Mastery

I have 2 m of ribbon. How many 60 cm lengths can I cut from it?

How long is the crayon?



Find the total length of route A.
Find the total length of route B.
How much longer is route A than route B?



Mastery with Greater Depth

A crocodile is 3 times as long as a pig. An elephant is 1.2 m longer than the crocodile. The elephant is 4.2 m long. How long is the pig?

Ahmed's ruler is broken. Explain how he can still use it to measure things in the classroom.



What is the difference in length between the pen and the pencil?



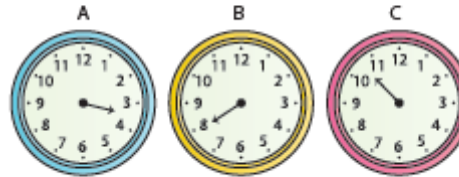
Mastery

Match the two clocks that show the same time.



Mastery with Greater Depth

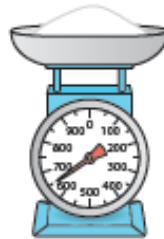
These clocks have only one hand, but can you suggest a time that each could be showing?



Explain your reasoning.

Mastery

What is the mass of flour on the scales?



I need $\frac{3}{4}$ kg of flour to make a cake.

How much more flour do I need to add to the scales?



Mastery with Greater Depth

6 toy cars balance 2 dolls. 4 dolls balance 1 toy robot.



If the robot weighs 3 kg, what does each toy car weigh?

Mastery

There is a tea urn and a teapot. The bottles next to them show their capacity.



How much more water does the urn hold than the teapot?

$$£2.60 + \square = £5.00$$

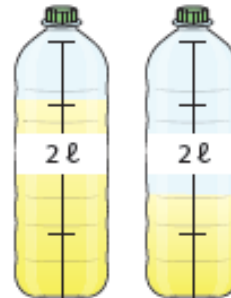
If I buy a sandwich for £2.20 and a drink for 90p, how much change do I get from £5?

Ellie buys 2 pencils. She pays with a £2 coin and gets 70p change. How much did each pencil cost?

Mastery with Greater Depth

These lemonade bottles each have a capacity of 2 litres.

One of them is $\frac{3}{4}$ full, and one of them contains $\frac{3}{4}$ of a litre of water. Which is which?



How much water is in the bottle which is $\frac{3}{4}$ full?

What fraction of the bottle is full in the bottle which contains $\frac{3}{4}$ of a litre?

Sophie and Ravi have saved some money. Altogether they have saved £35. Sophie has saved £4 more than Ravi. How much have they each saved?

Sam and Tom share this money equally. Divide the coins into two equal groups. Could three friends share the money equally?

Explain your reasoning.

