YR3 Knowledge Organiser - Length, Mass and Capacity

Key Concepts

- Measure, compare, add and subtract: lengths (m / cm / mm); mass (kg / g); volume / capacity (l / ml)

Key Vocabulary

- length
- m /cm /mm
- mass
- kg / g
- volume / capacity
- l / ml
- convert
- equivalent

Length

Different equipment can be used to measure lengths. We use rulers, metre sticks, measuring tapes and trundle wheels depending on the length we wish to measure.

We also use different units of measure (millimetres, centimetres and metres) depending on the object we are measuring.

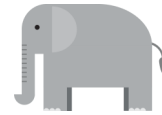| **fingernail**	**pencil**	**door**
millimetres	centimetres	metres

There are 100cm in 1m. We can use our knowledge of partitioning to convert cm to m and vice versa.

The elephant is 310cm tall.
310cm = 300cm + 10cm
300 ÷ 100 = 3
The elephant is 3m 10cm tall.

The giraffe is 5m 40cm.
5 × 100 = 500
500cm + 40cm = 540cm
The giraffe is 540cm.

There are 10mm in 1cm. We can use our knowledge of partitioning to convert cm to m and vice versa.

The beetle is 23mm long.
23mm = 20mm + 3mm
20 ÷ 10 = 2
The beetle is 2cm 3mm long.

The mouse is 7cm 9mm.
7 × 10 = 70
70mm + 9mm = 79mm
The mouse is 79mm.

We can compare measurements that use different units of measuring using these conversion skills.

6m 8cm	607cm	6m 95mm

First, we need to convert them to the same units of measure, then we can order them from largest to smallest.

6m 90mm (609cm)	6m 8cm (608cm)	607cm

We can also add and subtract measurements that use different units of measuring using these conversion skills.

"I am playing a game of mini golf. First, I hit the ball 2m 14cm then on my second try, I hit the ball 205cm."

205cm = 2m 5cm

2m + 2m = 4m   14cm + 5cm = 19cm

Millie hit the ball 4m 19cm in total.

"I am 128cm tall and my little sister is 1m 7cm tall."

128cm = 1m 28cm

1m 28cm - 1m 7cm = 21cm

Anita is 21cm taller than her sister.