LENGTH and PERIMETER KNOWLEDGE ORGANISER

Overview

Length and Perimeter we learn to:

- Equivalent Lengths (cm/m)   - Equivalent Lengths (mm/cm)
- Kilometres   - Add/ Subtract Lengths
- Measure Perimeter   - Perimeter on a Grid
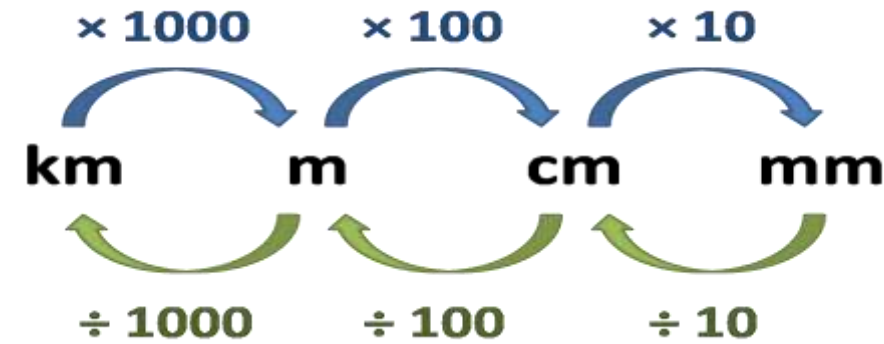- Perimeter of a Rectangle   - Perimeter of Rectilinear Shapes

This learning is important because it helps us to understand and measure the size of things in the world around us.

It helps us to grasp ideas such as where things will fit, what size items are in comparison to one another and distances that we need to travel.

Equivalent Lengths and Kilometres

- There are 100 centimetres in 1 metre.

- There are 10 millimetres in 1 centimetre.

$\times 1000$ $\times 100$ $\times 10$

km   m   cm   mm

$\div 1000$ $\div 100$ $\div 10$

- The crocodile is 3 metres and 10cm long.

- This is the same as 310cm long, or 3100mm long!

Kilometres

- There are 1000 metres in 1 kilometre.

- Kilometres are used to measure larger distances.
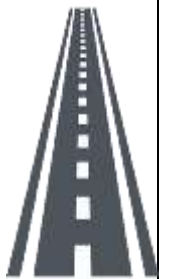
- 1.2km = 1200m

- 3.45km = 3450m

- 9920m = 9.92km

500m > 0.3km

750m < 1.4km

600m = 0.6km

Adding and Subtracting Lengths

- Centimetres (cm) are often used to measure shorter items. There are 100 centimetres in 1 metre.

- Millimetres (mm) are used to measure shorter items more precisely. There are 10 millimetres in a centimetre.

The length of the pencil is 6cm and 5mm, or 65mm.

The length of the pencil and sharpener together is 65mm+ 22mm = 87mm.

The pencil is 37mm longer than the sharpener: 65mm- 28mm = 37mm.

The length of the pencil sharpener is 2cm and 8mm, or 28mm.

Perimeter

- Perimeter is the distance around the outside of a shape.

- We can use given information to work out the perimeter of shapes with missing lengths.
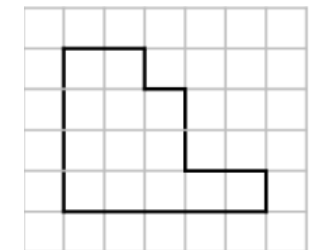
- E.g. The perimeter of this shape is 16cm.

- The lengths of the missing sides are 6cm and 2cm.

6cm

2cm

- We can also measure perimeter by counting the squares on squared paper.

E.g. On this example, each square is 1cm.

- The perimeter of this shape is 18cm. Clockwise from the top- 2cm + 1cm + 1cm + 2cm + 2cm + 1cm + 5cm + 4cm = 18cm.

Key Vocabulary

| Length | Height | Width | Perimeter | Equivalent | Distance | Rectilinear | Kilometre (km) | Centimetre (cm) | Metre (m) |