



# Knowledge Organiser

## Measurement



### Year 4

### Length, Perimeter & Area

Distance measures length. The most common units of measure for length are millimetres and centimetres (used for short distances), metres and kilometres (used for longer distances). Understanding area can help us with practical problems when we are older. For example: if we need to lay a carpet, we need to calculate the area of the floor so we know how much carpet we need.

#### Builds from Year 3:

Measure, compare, add and subtract length.  
Recognise equivalent lengths (mm & cm, cm & m).  
Measure and calculate perimeter of simple 2D shapes.

#### This year:

Convert between different units of measure.  
Calculate the perimeter of rectilinear figures.  
Find the area of shapes by counting squares.

#### Leads to Year 5:

Calculate and estimate area.  
Convert between units of length.

### Area and Perimeter

**Perimeter** is the total distance around the outside of a 2D shape.

**Area** is the amount of space inside a 2D shape.



### Units of Measure for Length

mm

cm

m

km

1 centimetre = 10 millimetres

1 metre = 100 centimetres

1 kilometre = 1000 metres

1mm < 1cm < 1m < 1km

### Rectilinear Figures

A **rectilinear figure** is a 2D shape whose sides all meet at **right angles** (90°).

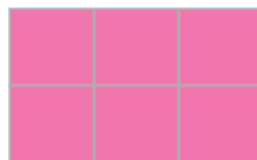


### Measuring Area

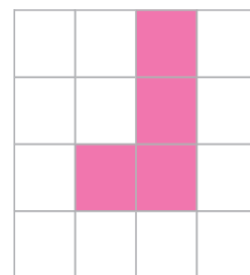
We can **count squares** to find the **area** of a rectilinear shape.



Area = 1 square



Area = 6 squares



Area = 4 squares

### Key Vocabulary

length width area perimeter area distance millimetre (mm) centimetre (cm) metre (m)  
kilometre (km) rectilinear squares