Maths - Year 5

Measurement 6: Scale drawing

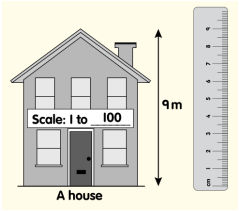
Key Vocabulary	
Area	An amount of surface.
Perimeter	The distance around the edge of a shape.
Scale drawing	An image of a real-life object that has had its dimensions enlarged or reduced in size using the same scale factor.
Scale factor	Describes the factor by which the length of each side is multiplied when a shape is made larger or smaller in proportion.
Ratio	A way of comparing two or more quantities measured in the same units, e.g. if *a* is 3 times as much as *b* this comparison can be written as the ratio *a* : *b* is 3 : 1.
Proportion	Used to express a fraction of a whole, e.g. the proportion of grapes in a bag that are green could be expressed as ½.

Mathematical Skills

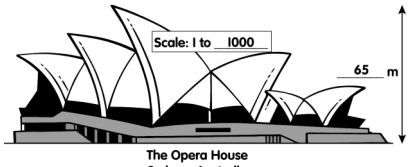
- Measure accurately, using an appropriate degree of accuracy.
- Multiply and divide by powers of 10 in order to convert between metric units of length or distance.
- Appreciate that a scale drawing is an accurate representation of real-life proportions.
- Create scale drawings based on actual measurements.
- Estimate real measurements from scale drawings.

Mathematical Methods

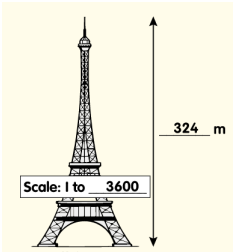
- Understanding scale.



A house



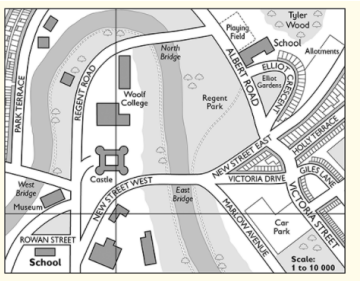
The Opera House
Sydney, Australia



Eiffel Tower
Paris, France

- Making a scale drawing e.g. drawing round a person and then making a scaled down drawing.

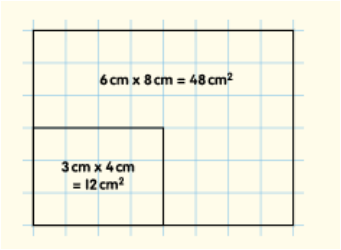
- Using scale drawings to find the actual size.



Scale 1mm: 10,000mm

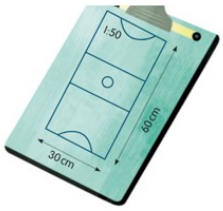
= 1mm: 10m

- Exploring the effect of scaling.



Can you..?

- Mrs Lawson shows a netball team a 1:50 scale drawing of the netball court. What are the dimensions of the real court in metres?



- Can you draw this triangle scaled up by a scale factor of 3.