

Understanding Scale Drawings



Aim

- Understand the term scale drawing.
- Interpret scale drawings into actual measures.
- Interpret actual measures into scale drawings.

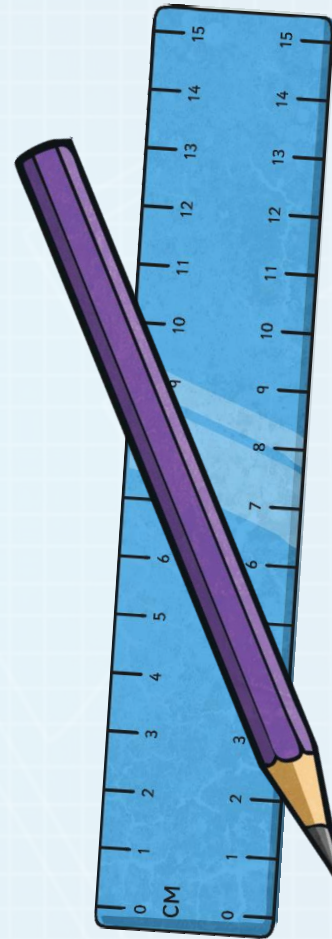
Scale Drawings

A scale drawing is a drawing of an object that has to use different measures on the drawing.

For example:

A wall may have real-life measurements of $5\text{m} \times 8\text{m}$. However, there is no way you could draw these actual measurements on paper.

For this reason, we use scale drawings.



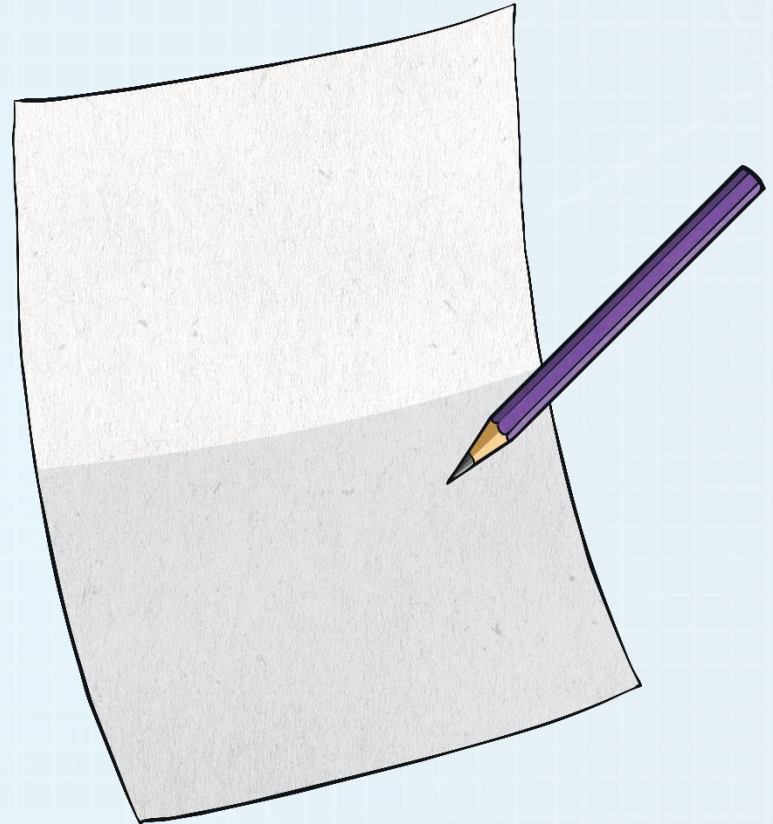
Scale Drawings

So, because $5\text{m} \times 8\text{m}$ is too big to draw on paper, we change these measurements into scaled measurements.

Instead of using metres, we change it to a smaller measure:

$$1\text{m} : 1\text{cm}$$

Now, we are able to draw our wall (**$5\text{cm} \times 8\text{cm}$**) and know that every **cm** we draw, represents **one metre** in real life.



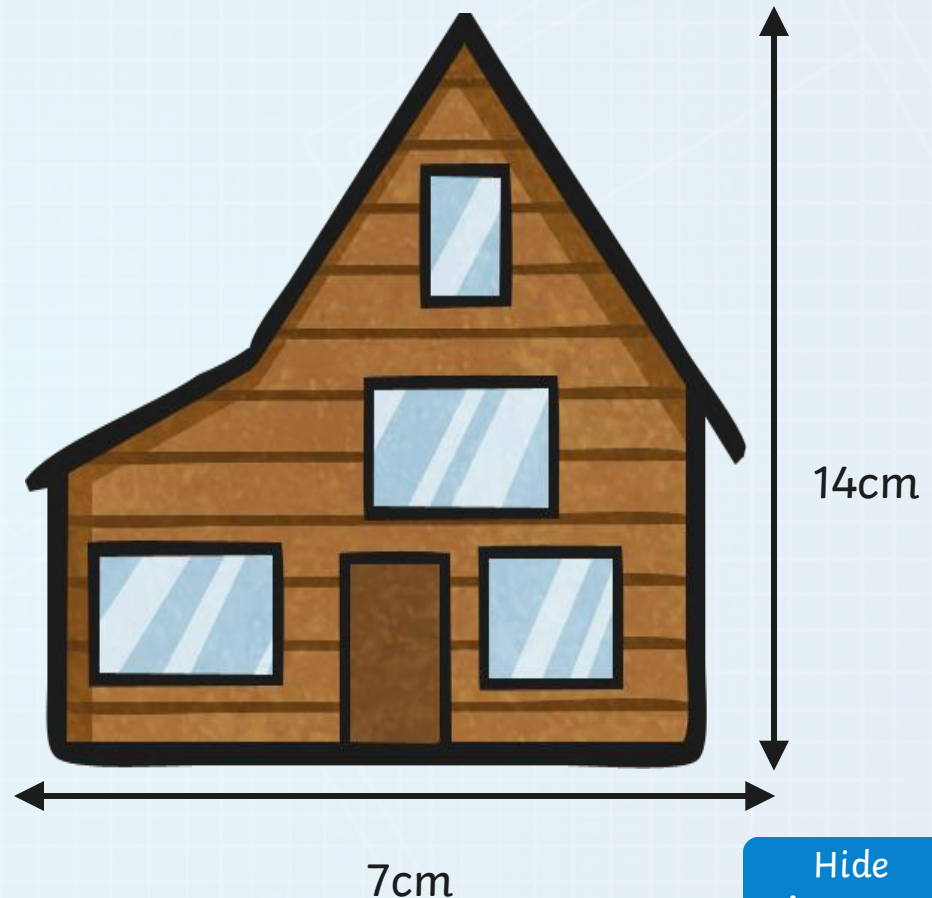
Interpreting Scale Drawings into Actual Measurements

Look at the building. This building has been 'drawn to scale'.

1cm : 1m

What are the actual measurements of this building?

That's right, 7m wide and 14m high!



Hide Answers

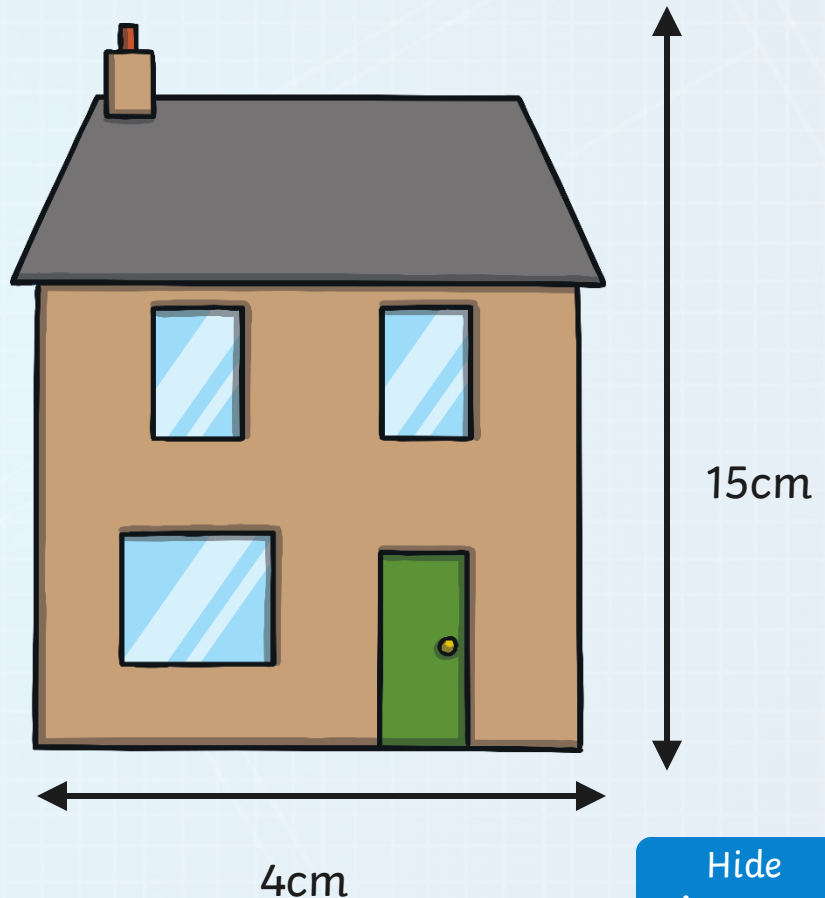
Interpreting Scale Drawings into Actual Measurements

Look at the building. This building has been 'drawn to scale'.

1cm : 3m

What are the actual measurements of this building?

That's right, 12m wide and 45m high!



Hide
Answers

Interpreting Actual Measures into Scale Drawings

Sometimes, we need to convert actual measurements into scaled measurements.

Look at the building.

This building shows its actual measurements.

$5\text{m} : 1\text{cm}$

What are the scaled measurements of this building?

That's right, 12cm wide and 8cm high!



Hide
Answers

Interpreting Actual Measures into Scale Drawings

Look at the building.

This building shows its actual measurements.

$4\text{m} : 1\text{cm}$

What are the scaled measurements of this building?



That's right, 22cm wide and 8cm high!

Hide
Answers

Who Uses Scale Drawings?

architects

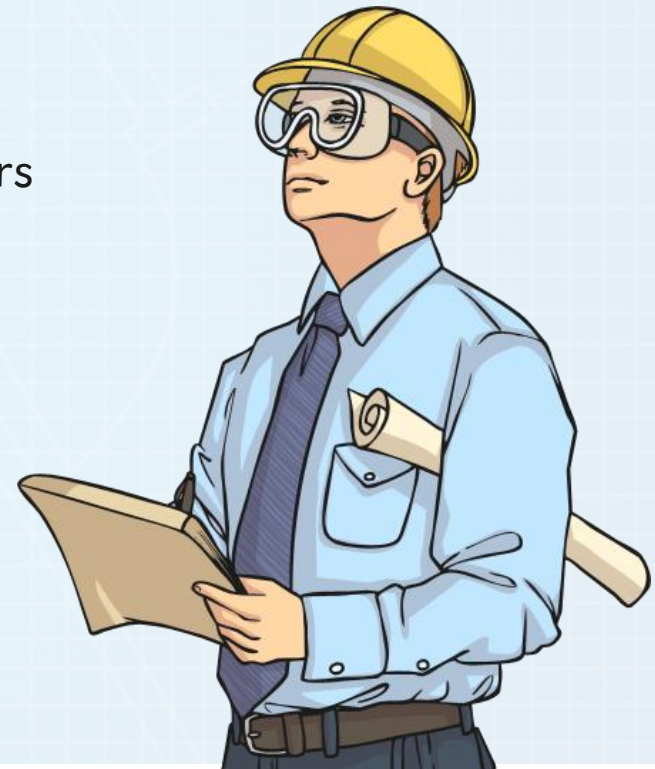
builders/plumbers/electrician/joiners

structural engineers

surveyors

machinists

interior designers



Aim

- Understand the term scale drawing.
- Interpret scale drawings into actual measures.
- Interpret actual measures into scale drawings.

