

What is the height between each of the build lines (*contour lines*) on your model?

(There are 126 layers on the Cwm Idwal model and 68 Layers on the Long Mynd model)

- The highest point on the Cwm Idwal model is Glyder Fawr (1001m) 645581
- The base of the model is 0m (sea level)
- There are 126 printed layers between sea level and the top of Glyder Fawr (0m—1001m)

$$\frac{1001}{126} = 7.94$$

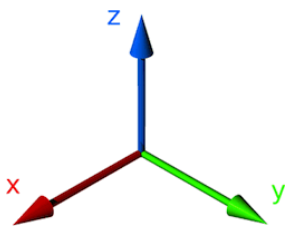
126

- Therefore each printed layer is 7.94m high

How tall would you be if scaled to the same scale as your model landscape (1:50,000)

Can you find an object to compare this to?

- I am approximately 1.8m tall.
- The model is scaled at 1:50,000 in the x, y and z axes.
- 1cm on the model represents 500m on the ground



- 0.2cm = 100m
- 0.02cm = 10m
- 0.002cm = 1m
- I would be 0.002cm x 1.8 tall on the model
- I would be 0.0036cm tall (or 0.036mm)

Alternatively you could reach the same result by the following method.

- Model scale is 1:50,000
- So my height (cm) x 1/50,000 would give me my scaled height.

$$\frac{180}{50,000} = 0.0036\text{cm (or } 0.036\text{mm)}$$

- A quick google search finds that a human hair has a diameter of 0.04—0.1mm.

(<http://www.schwarzkopf.com/en/hair-care/split-ends/hair-dictionary.html>)

Field Studies Council 3D model gallery - download and print your own, and share any models that you make at Thingiverse.com

[https://www.thingiverse.com/Field\\_Studies\\_Council/](https://www.thingiverse.com/Field_Studies_Council/)

How-to-guide—creating 3D Printable landscapes

[http://bit.ly/FSC\\_Build\\_Pocket\\_Mountains](http://bit.ly/FSC_Build_Pocket_Mountains)



Using 3D printing to support landscape exploration and interpretation

David Morgan – Education Technology Officer

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