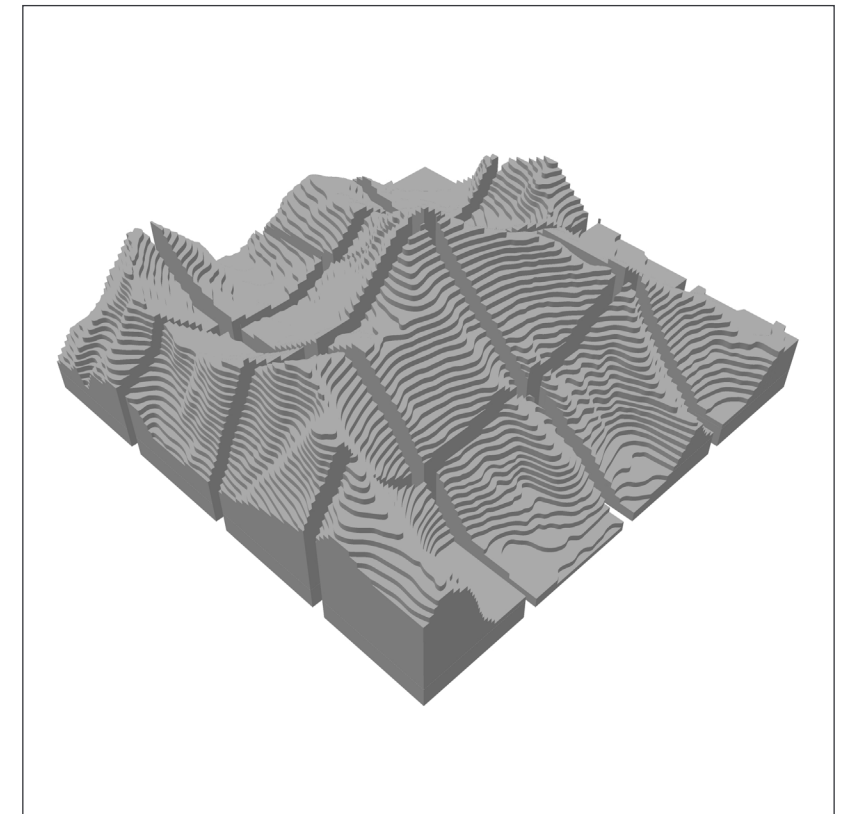
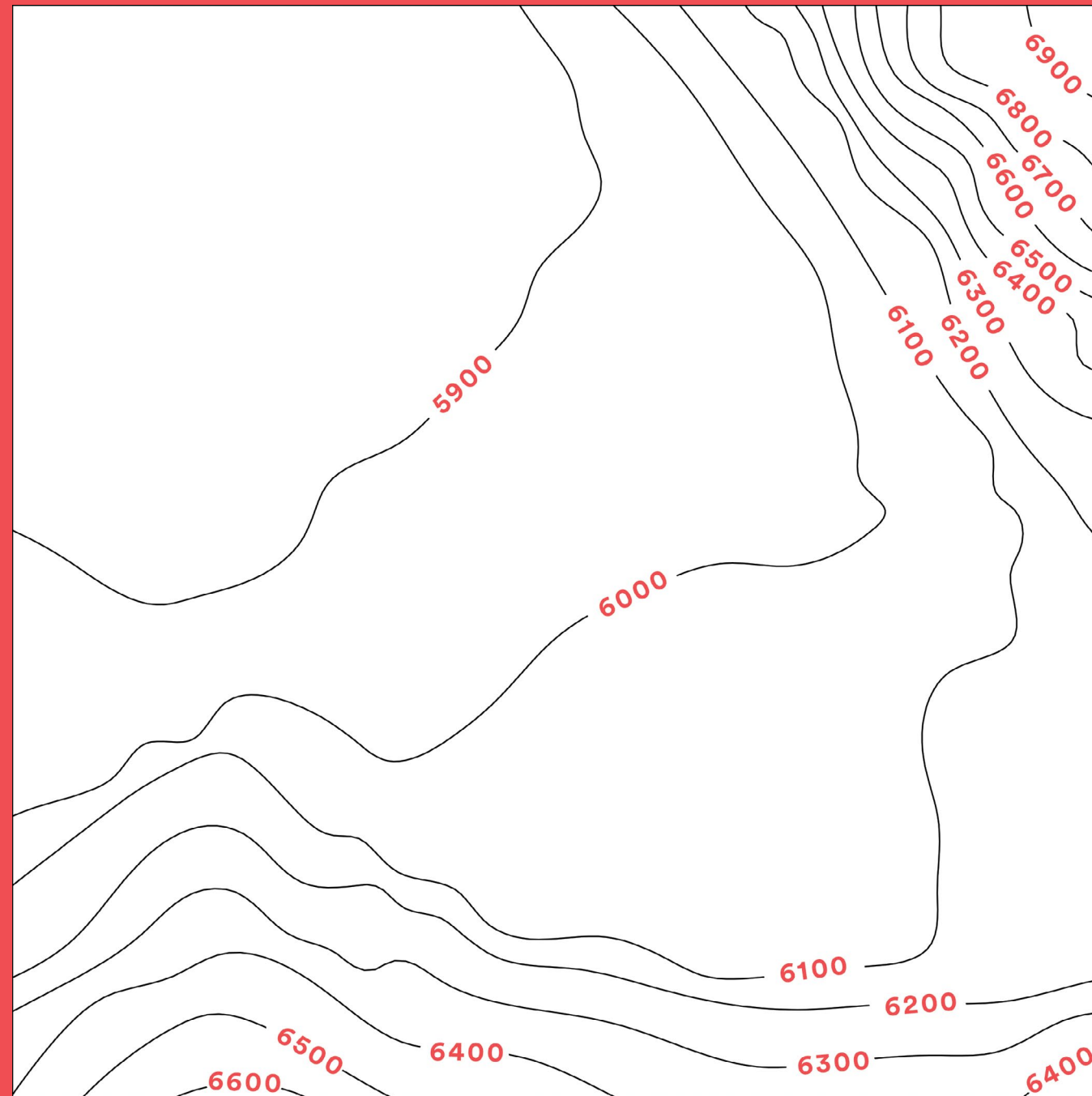


# Make a 3D Contour Model **Presentation**





## What is a contour line?

A contour line is part of a topographic map and they show the shape of the land surface. The contours run across areas of land that have the same elevation. What do you think the numbers represent?



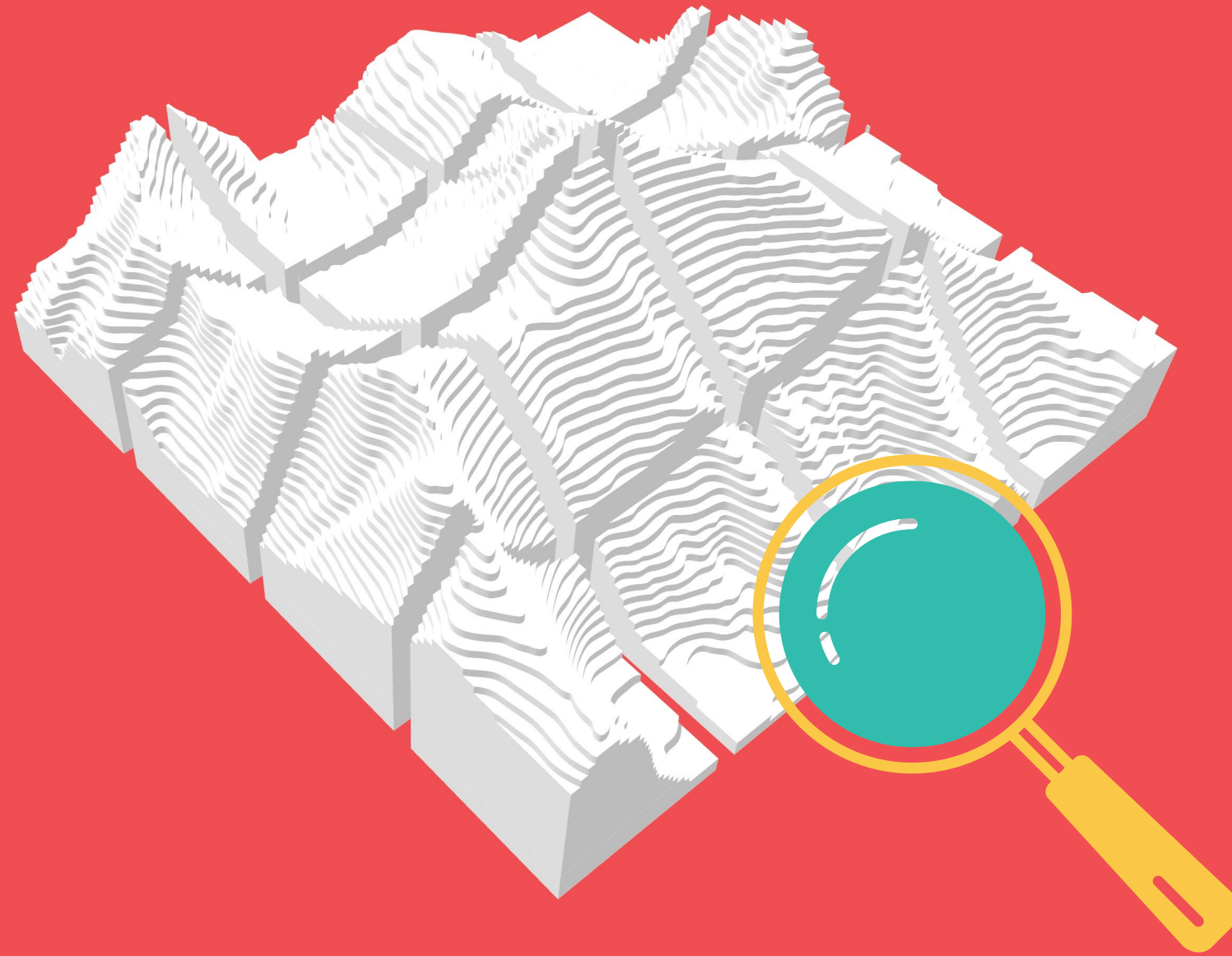
## Who might use a map with contour lines?

Topographic maps can be used by hikers when planning their route. Who else might find them useful? And how will they use them?



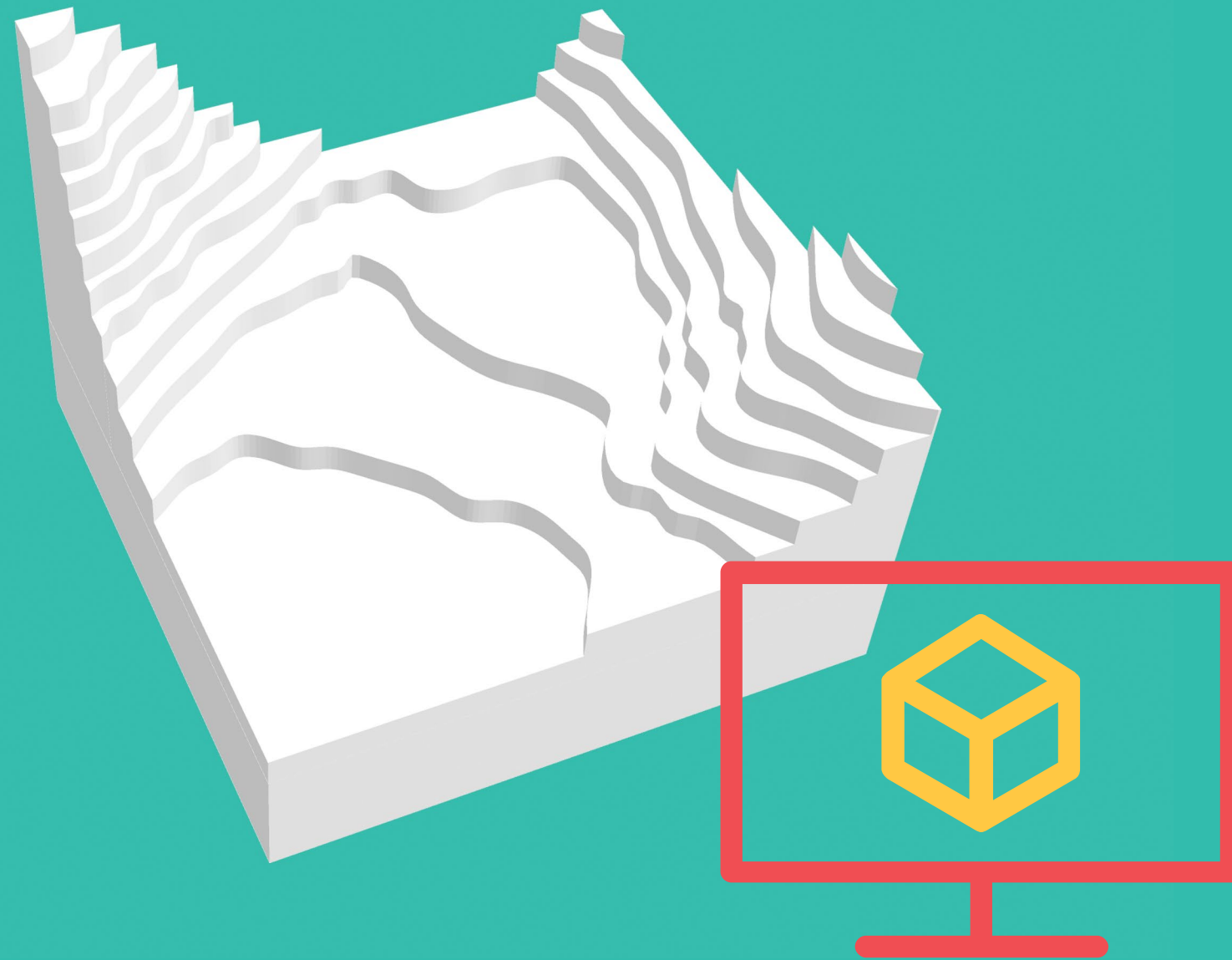
## Mount Everest is the Earth's highest mountain

and in today's lesson we are going to create a three dimensional contour model of the mountain and its surroundings. A 3D contour model will allow us to have a better understanding of the land surface than a 2D map.



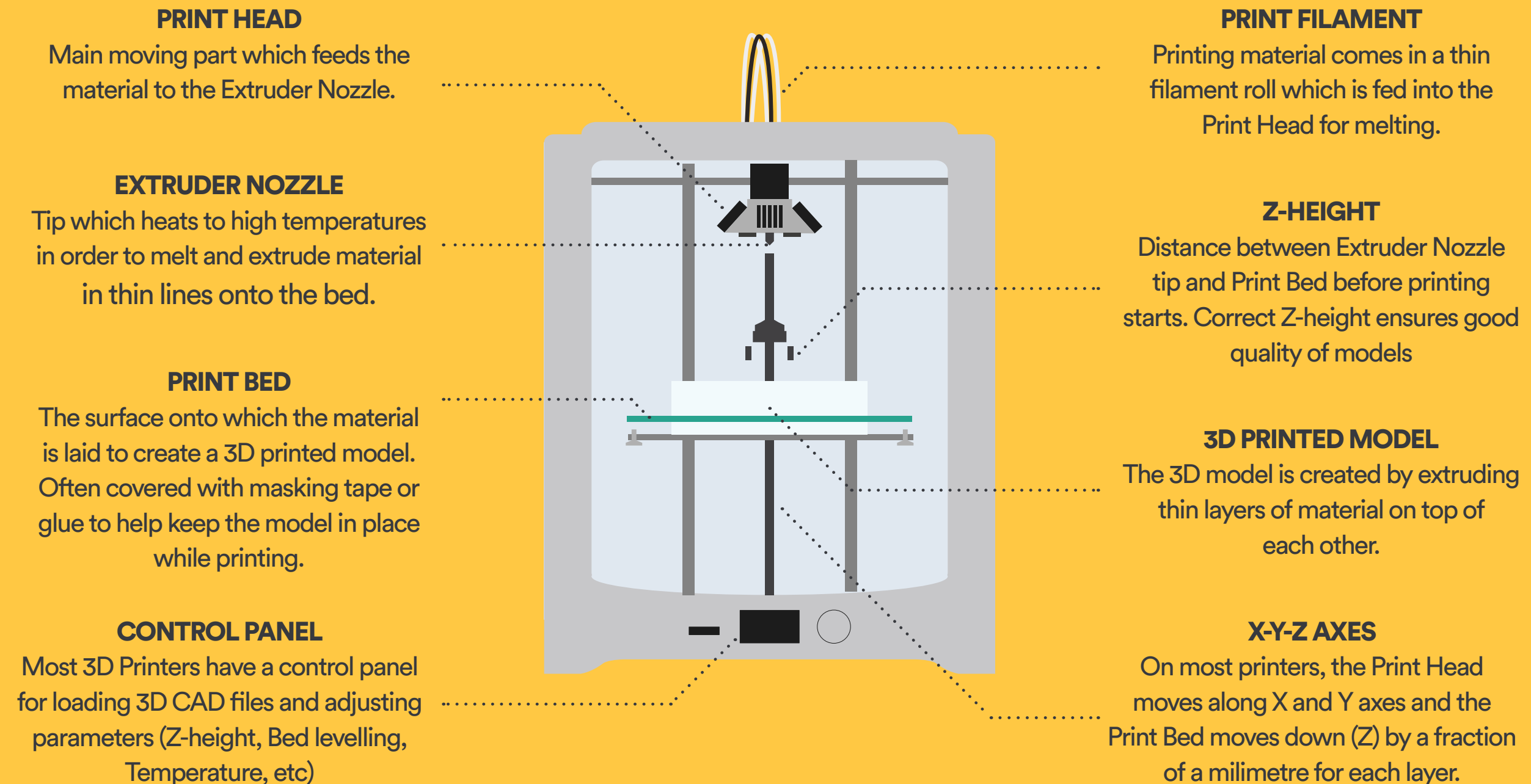
## Our 3D contour model will be to the scale 1:50,000

This means that if we enlarged our model by 50,000 times, it would be the same size as Mount Everest. Using scales is a very important part of mapping as it allows people to calculate distances of areas. It is also common to use “scale bars” on maps. What do you think these are?



**Each of you will design a separate part of the 3D contour model**

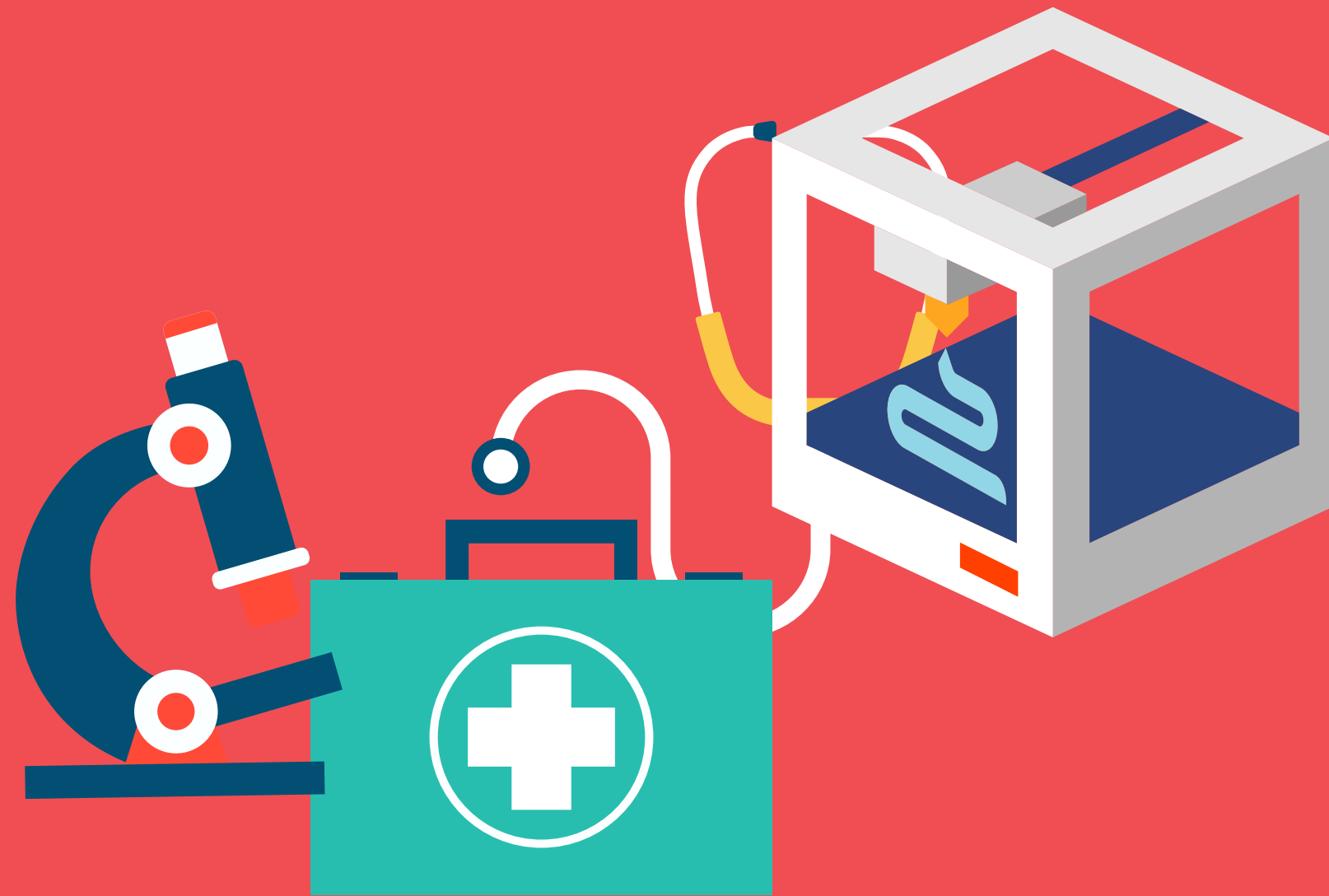
We'll be using SketchUp, a 3D modelling software, to turn a 2D drawing into a digital 3D model.



## Then we are going to 3D print everyones design!

3D Printing is a rapid prototyping technology that uses a 3D CAD file from a computer to construct a physical three dimensional model out of a material such as plastic. The 3D CAD file is sliced into thin layers and digital line coordinates, which the 3D printer follows to create the plastic models, one layer at a time.





## **3D printing has many benefits...**

such as being able to produce design prototypes quickly and affordably. How else do you think 3D printing can be used? How can it benefit the medical sector?



**Now let's begin creating our 3D contour model...**  
**by working through your student workbook**