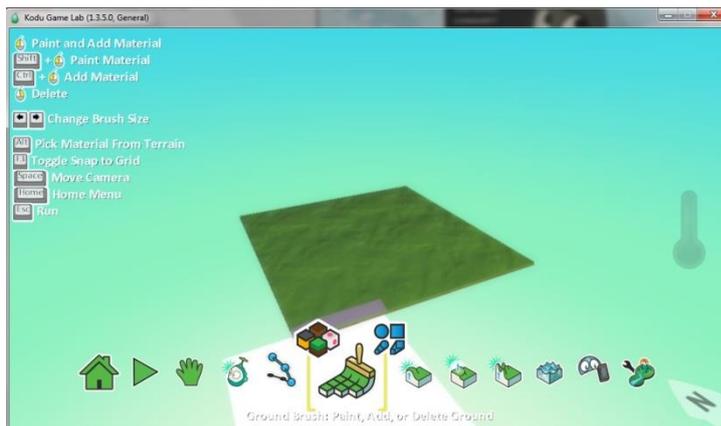## How2 create your first world in Kodu

When you open Kodu Game Lab, you will see a window that has a number of options. To create your own world in Kodu, select New World.

A new window will open with a patch of green land sitting in the middle. It's quite a small world at this stage, so the first thing to do is make it bigger.

There are lots of different buttons at the bottom of the Kodu screen. The one we are interested in at this stage is the one that looks like a green paintbrush. When you click on this, you will see on the left of the screen a list of different options appears. We are going to add some more green land to the piece that is already there. Click around the green square to add more green land to your world.

I have clicked here to the left of the original square and above it to add more green land to my world.

Most worlds aren't just green, though, so it would be good to make some of the land a different colour and type. You can easily do this by choosing the option for changing material at the bottom of the screen.

When you click on this, lots of different options appear for making your world more varied and exciting.
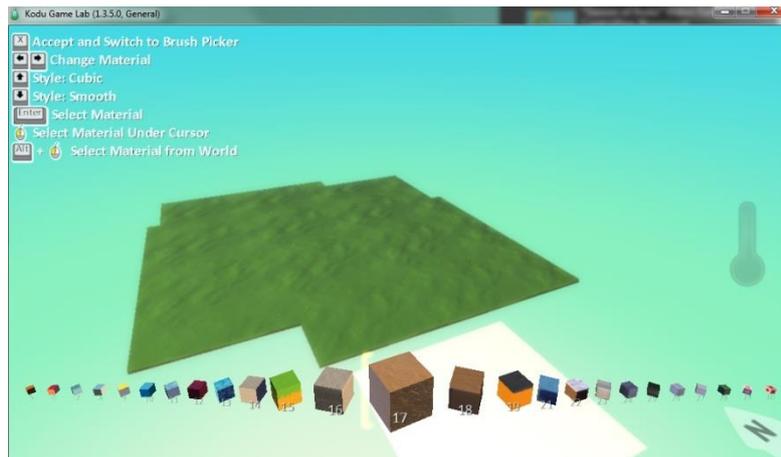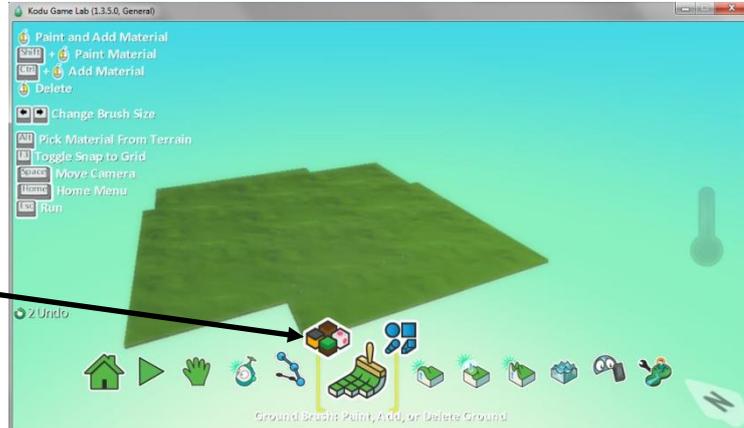
When you have clicked on the small cubes icon, you will see a whole row of cubes that represent different type of material you can use for your world. I have used the right arrow button to move through these to number 17, a light brown material, and I am going to add some of this to my world.

Here I have clicked to the right of my green land to create land in the light brown material (number 17). You can add as much as you want, and choose a different material for your world!
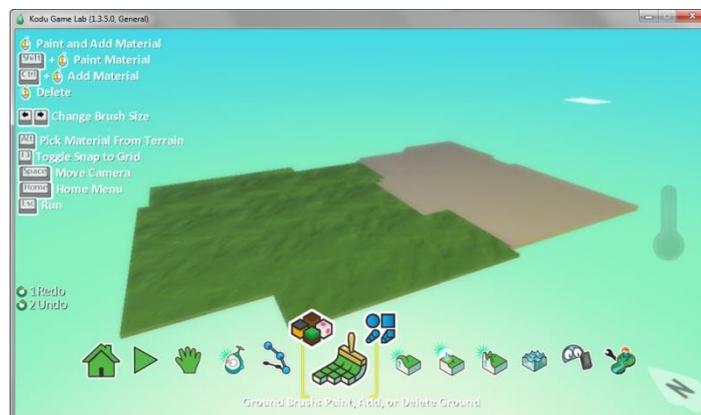
So far, my world is very flat, and I would really like some hills to make it more exciting. This time, I will use a darker brown material and have chosen number 18 (remember, you can move through the materials easily with the right and left arrow buttons).
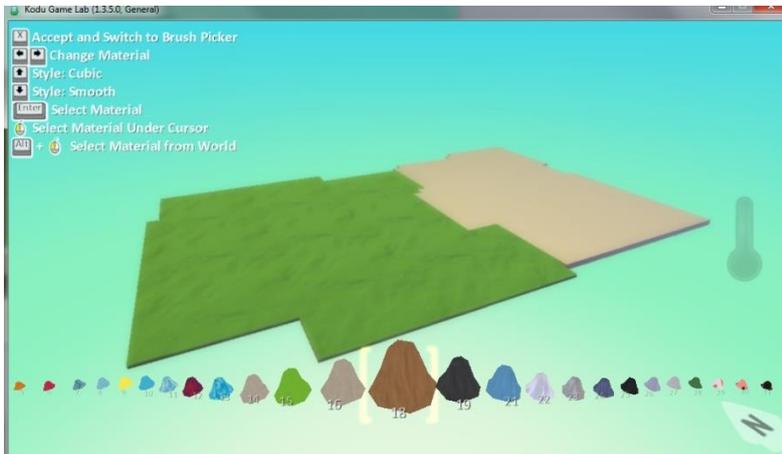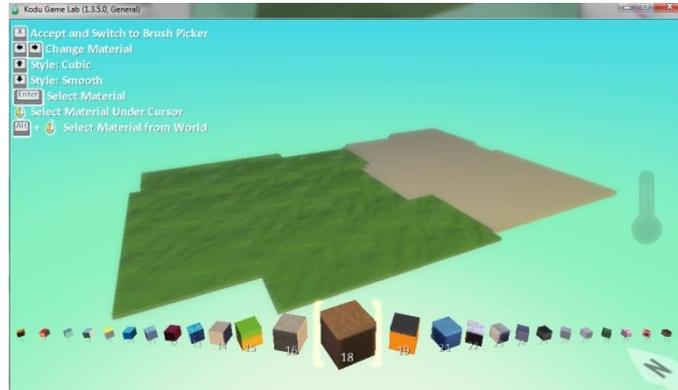
Another option you can use when adding material is to make it smooth. Here I have used the down arrow to move to a lump of material from the cube of material – this means that any material I now add will be smoother than the light brown and green material I have used so far.

Here I have added smooth brown material to the left of my green material. To move the world around a little to add more material, click on the hand icon - this allows you to easily move your world wherever you want it to go.
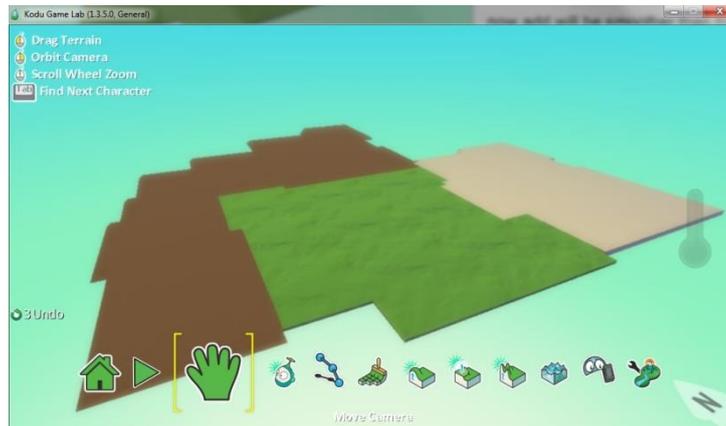
Now to put the hills in! Using the 'Hills and Valleys' tool, which is next to the material paintbrush, you can click on the areas where you want hills and drag your mouse upwards to make your hills.
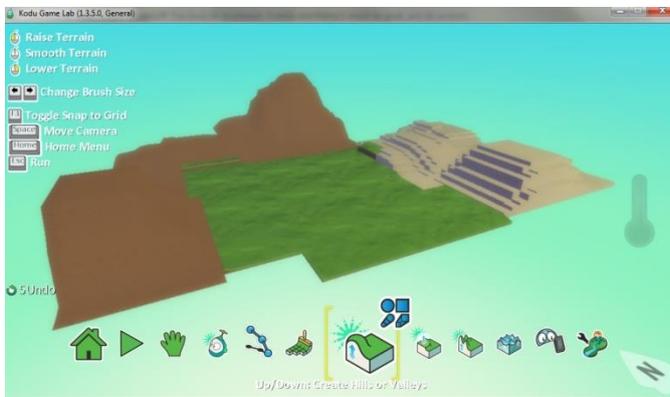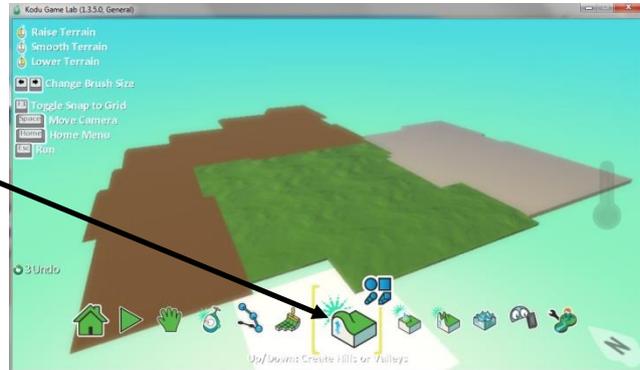
I have made hills in both the darker brown areas of my world, and the light brown. In the darker brown areas, my hills are quite smooth. When I make hills in the lighter brown areas, they look like steps – that's the difference between the smooth terrain and the 'blocky' terrain. I can use the undo function (on the left of the screen) to get rid of those strange blocky hills! To make them smooth, go back into the paintbrush tool, select the number 17 material again, but this time use the smooth, rather than the block, effect. Then you can add more smooth hills in the light brown area.
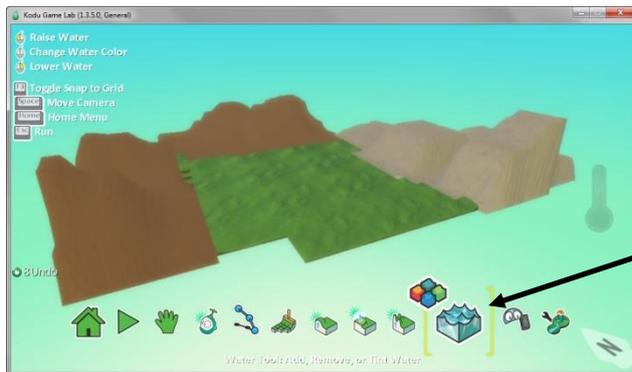
My world is a bit dry! It would be good to have some water in it. To add water to the world, use the 'add water' tool, which is three more tools along from the 'raise terrain' tool.
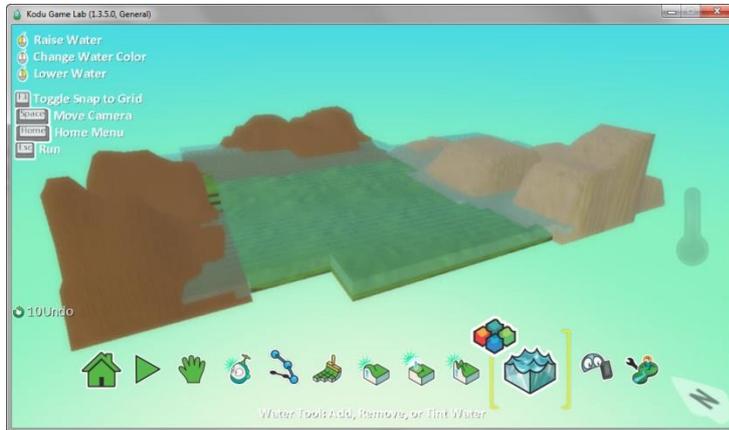
To add water, click on to the terrain in your world and left click to raise the water level. If you raise it too much, use the right click to lower it. It will fill the areas of your world that aren't hills. Now you have a world that has dark and light hills and water!

You can experiment creating different worlds, making them bigger, adding paths and other features before you start to explore how to add characters and program them to move.

When you have played with world-building for a while, check out the next How2 which will explain how to add objects (including characters) to your world.