



CODING WITH MINECRAFT

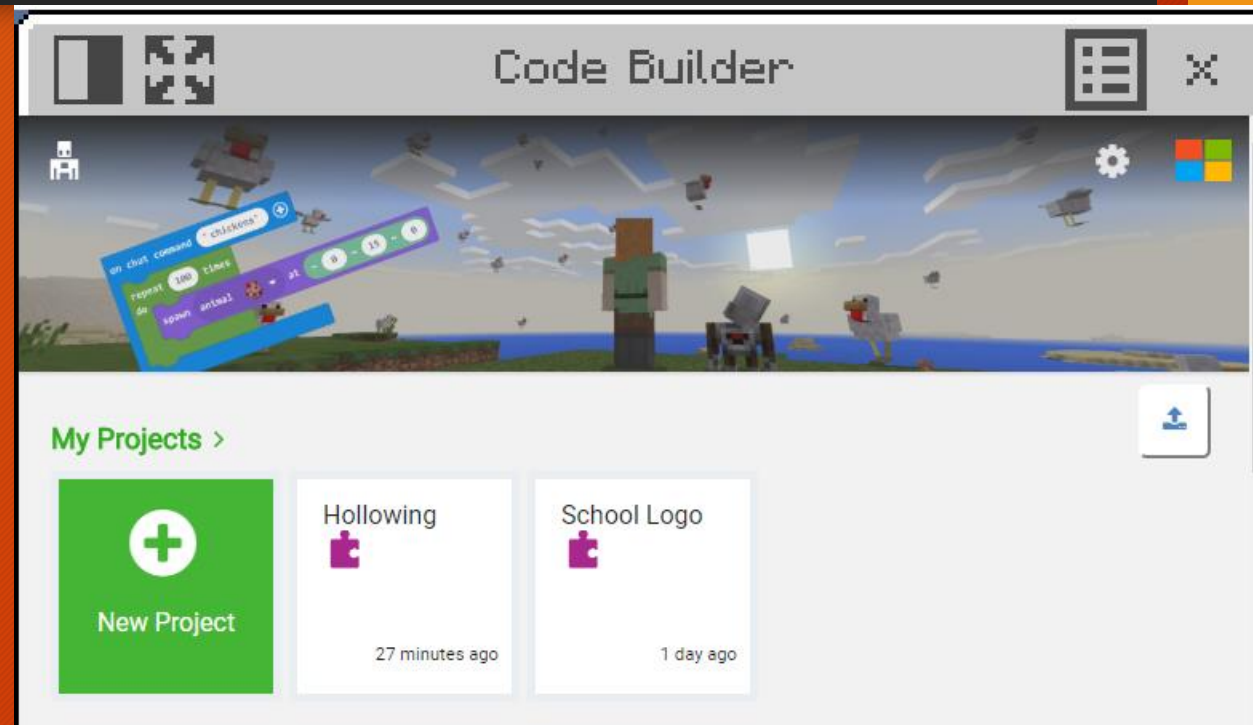
Making a Path

Section 1

- Starting

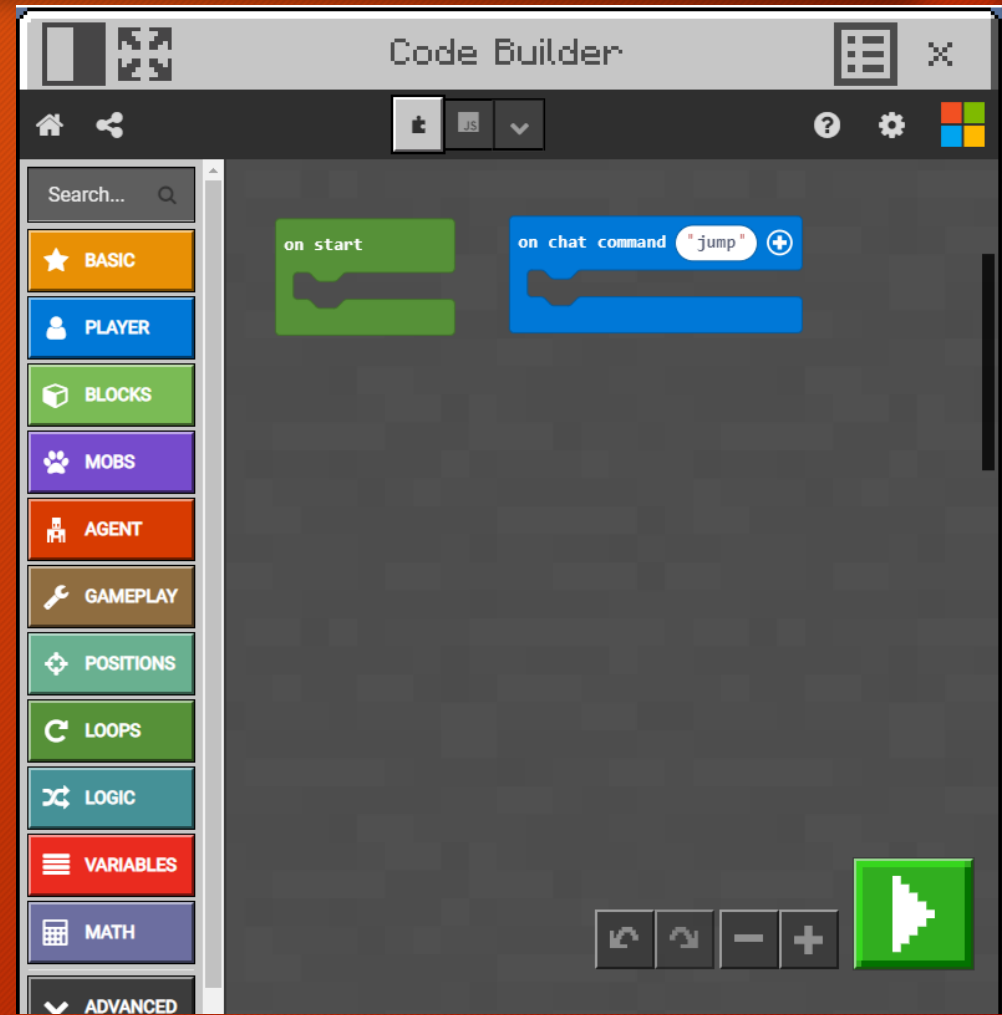
Setting up the Code

Load into Minecraft and sign in. Once you have opened a world, press C, or click on the robot face if on tablet, and you are sent to the Code Builder. If first time, you will have a choice of Makecode, Python or Tynker. Use Makecode for now. Select New Project and name the project as whatever you wish. If you don't finish the project straight away and need to come back, you must always re-enter the Code Builder and find this code.



Setting up the Code

This is your coding screen. It works the same as Scratch. There will be a lot of code, and we will go through each step.



Section 2

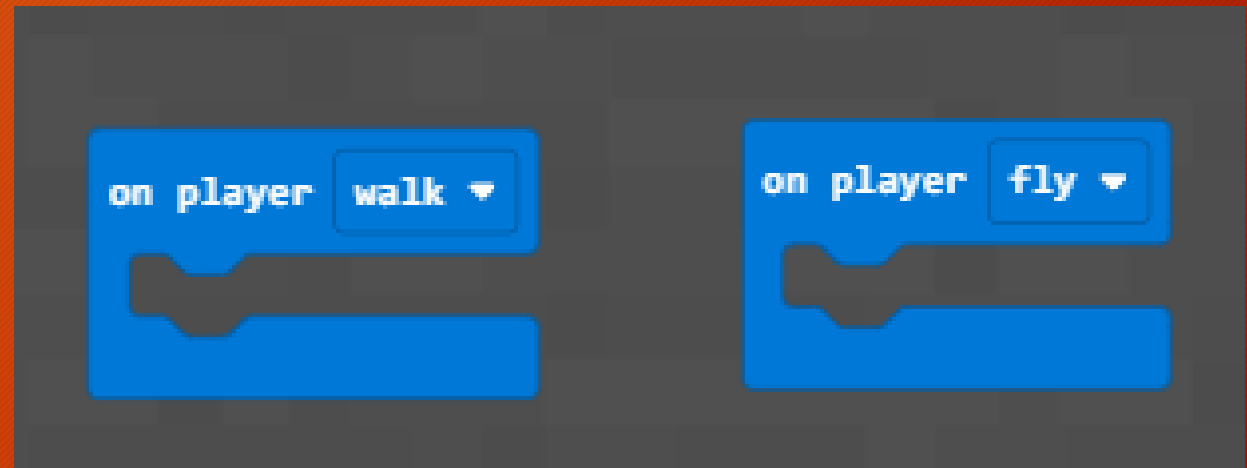
- Making a path for yourself.

Basics

With the following codes, you can quickly create the following:

- Paths
- Forests
- Flowers
- Rivers
- Tunnels
- Valleys

We will go through each one at a time.

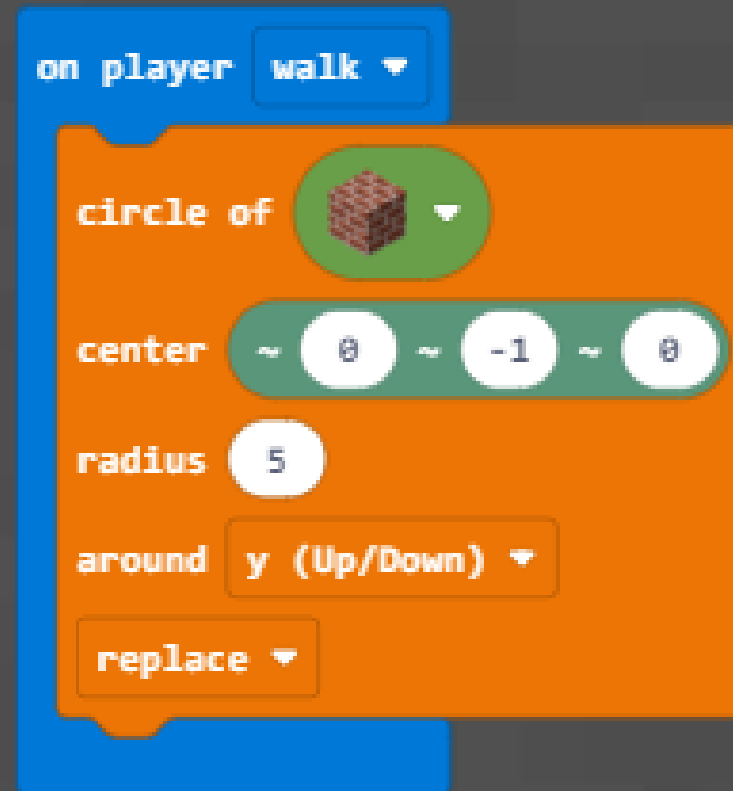


Section 3

- Paths

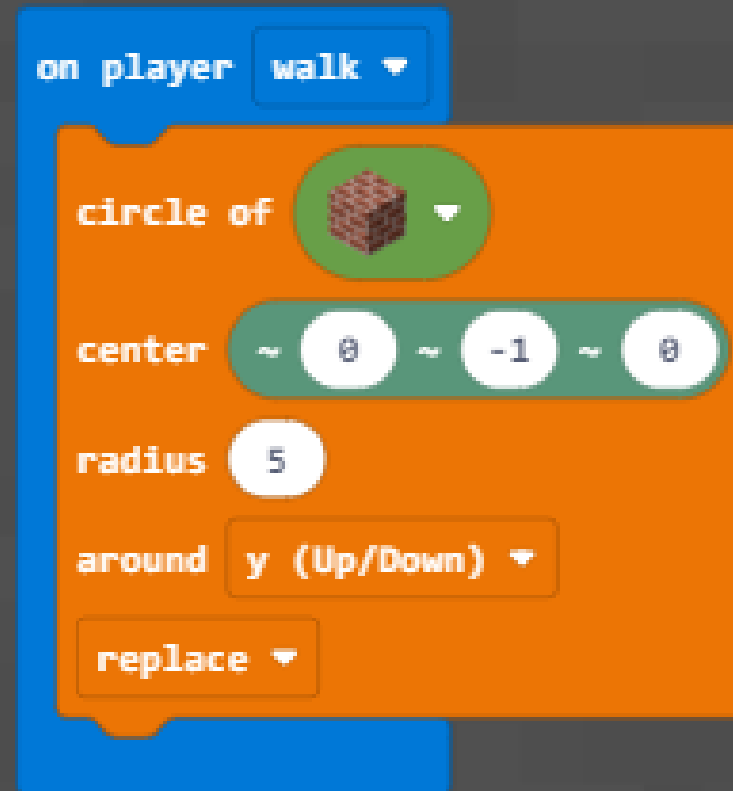
Making a Path

This first code is very simple to make a path for yourself. The block can be whatever you want it to be. Remember, the bigger the radius, the longer it takes to make. Take your time when walking. The circle block is in the Advanced section of blocks.



Making a Path 2

Click on the down arrow and select fly. This time fly in the air and a path will appear directly under your feet. This is good if you are on a biome that has hills.

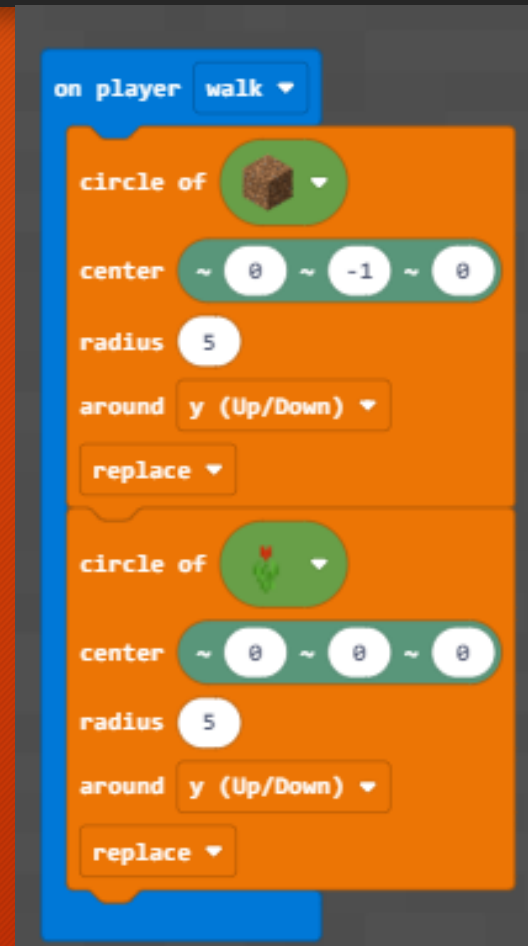


Section 4

- Forests and Flowers

Quick Gardening.

Using the same method you can create a forest, patch of flowers or farmland by changing the material to a plant and the Y co-ordinate to 0. Also, add another layer beneath of dirt or grass. Either use walk or fly.



Section 5

- Rivers

Rivers

For rivers only use fly and remember to take your time. Wait until all layers are done. The deeper you make it the longer it takes. This can also be used for lakes, ponds and oceans.

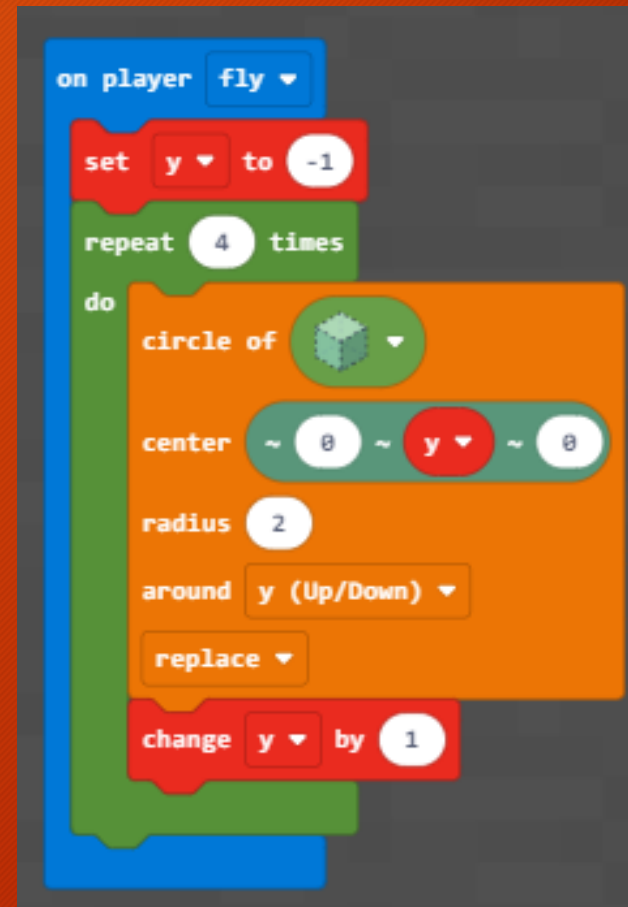


Section 6

- Tunnels

Tunnelling through Mountains

You could use the same method from rivers to quickly tunnel through a mountain like this using the air block. If you wanted to you could create another circle on top for a light source after the repeat loop.



Tunnelling through Mountains 2

Another fast method is a sphere. Remember, the bigger it is the longer it takes.



Section 7

- Valleys

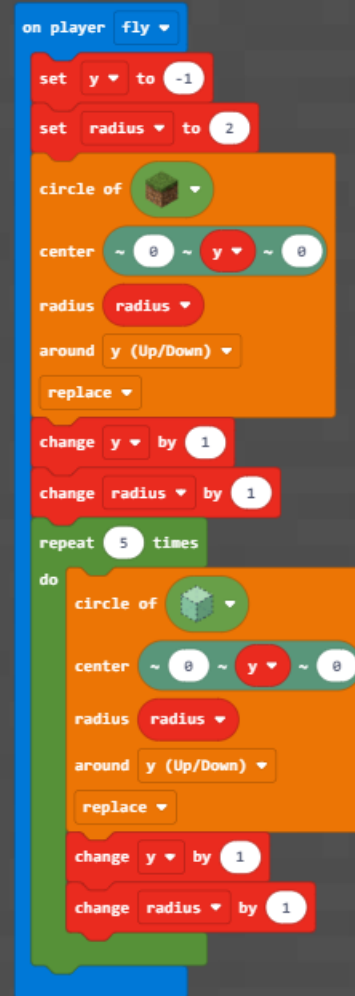
Valley 1

Valleys in a mountainous biome are done a similar way and can be done in a variety of ways. Here is one with really steep sides and very narrow. The first circle can be grass, water or whatever you want at the bottom of your valley.



Valley 2

This is for what is a v-shaped valley, which has steep diagonal walls.



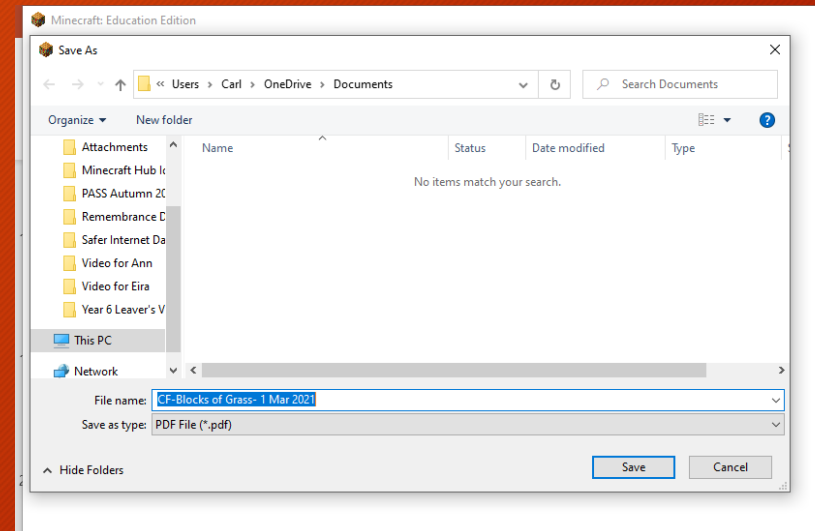
Valley 3

This is for what is a u-shaped valley, which has steep walls, but a wide bottom.

```
on player fly
  set y to -1
  set radius to 2
  circle of
    center -8 - y - 8
    radius radius
    around y (Up/Down)
    replace
  change y by 1
  change radius by 1
  repeat 5 times
    do
      circle of
        center -8 - y - 8
        radius radius
        around y (Up/Down)
        replace
      change y by 1
      change radius by 1
  repeat 5 times
    do
      circle of
        center -8 - y - 8
        radius radius
        around y (Up/Down)
        replace
      change y by 1
```

Show your evidence

Remember to equip your camera and portfolio. Take pictures of your work, and then give a caption in your portfolio. Click Export Portfolio and it saves on your computer as a PDF document. This you can then email to your teacher.



Challenge

- Go to any biome, not just Blocks of Grass and make a variety of features using these skills.
- Remember to break the code before continuing. Either pull the coding out of the blue box or click home whilst in the coding option.

Enjoy Coding

