If you had a choice between building something block by block or with one line of code, the choice should be obvious! In this tutorial, you will learn how to master the Fill Command in Minecraft.

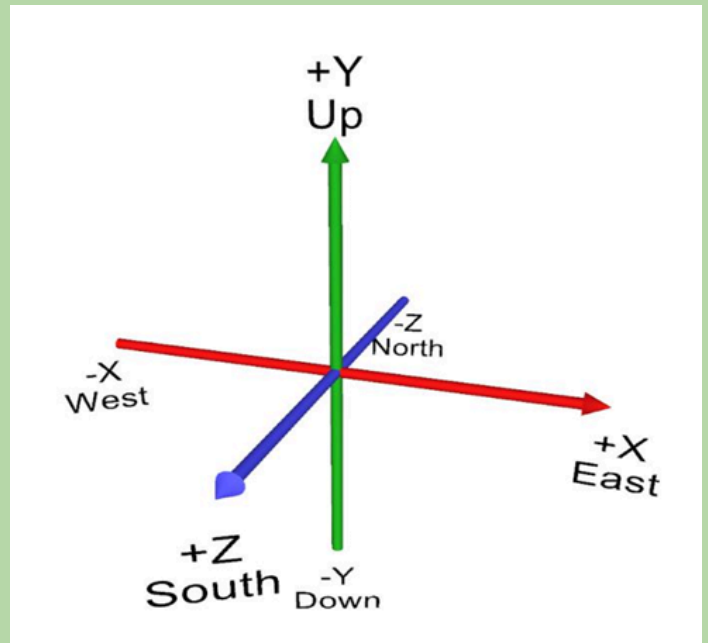|	
1. Open Minecraft. Then go to: View Library -> Starter Worlds -> Build Plates -> Blocks of Grass -> Create World	**Blocks of Grass** By Minecraft Education CREATE WORLD
2. Your starting position when you open the world is indicated by a set of X-Y-Z coordinates. If you don't see your coordinates, go to your Settings, and scroll down and turn on "Show Coordinates".	Position: 0, 0, 0 Settings Show Coordinates

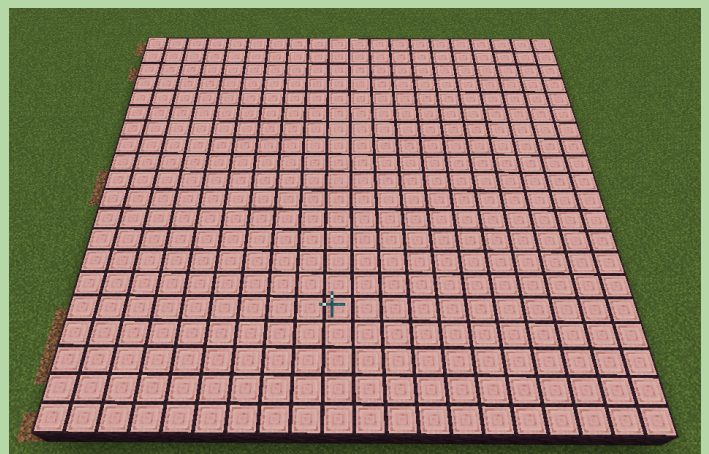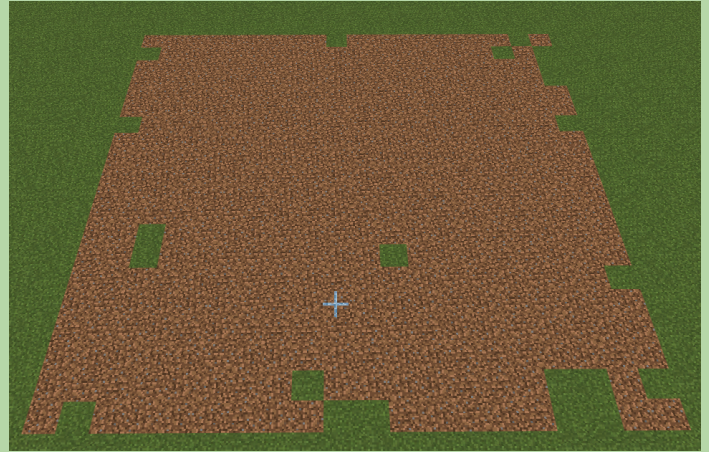|	
3. In order to understand the Minecraft coordinate system, refer to this image.	
4. Now we will try building a platform that measures 20L x 1H x 20W. Meaning, it is a square platform, that is one block high.	
5. Here is the code. The first corner of the platform is (0,0,0) and the opposite corner is (19,0,19) Notice the spaces between the numbers. You can use any material by typing the name. Check your spelling.	`/fill 0 0 0 19 0 19 cherry_log`
6. Here is an aerial view of your platform.	
7. We used 19's because there are 20 units from 0 to 19, inclusive. We use 0 for the second Y-coordinate. Do you know why we didn't use 1?	🤔

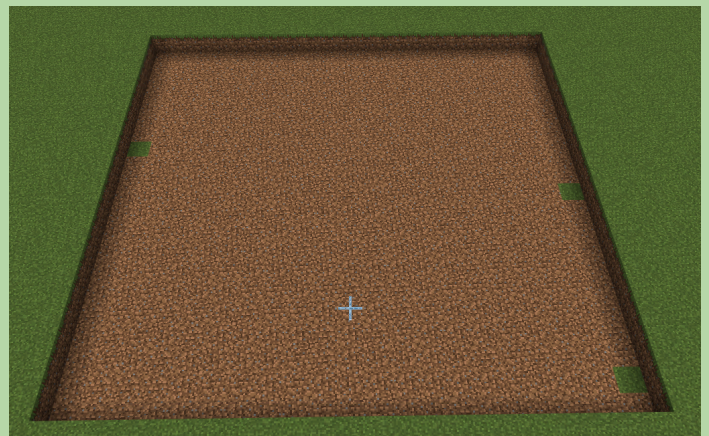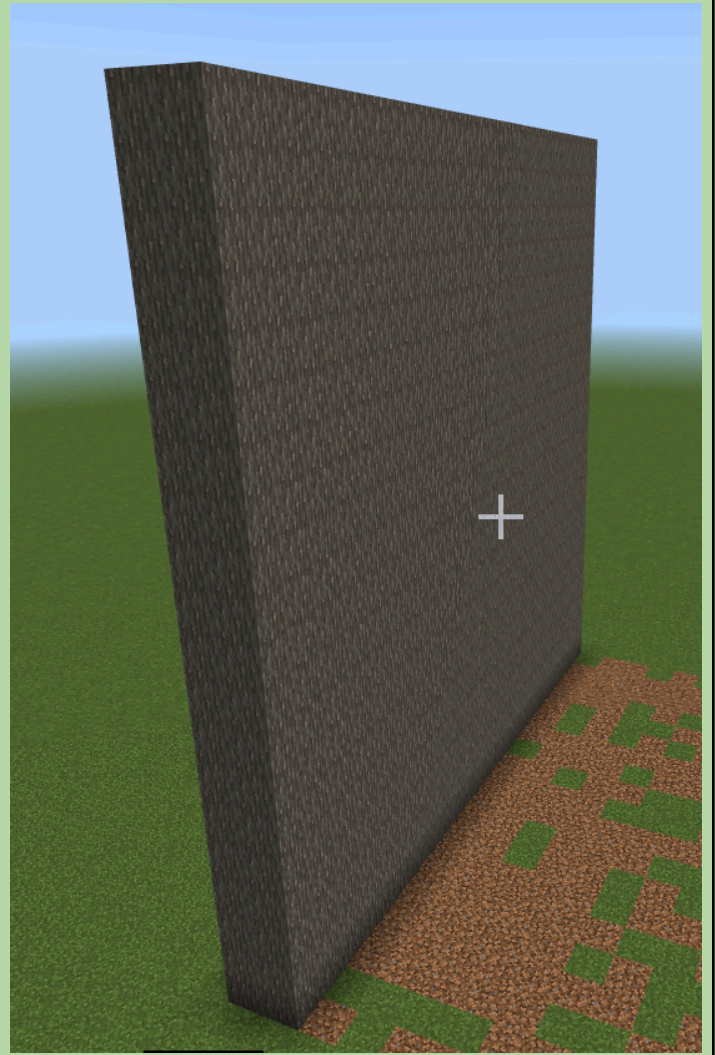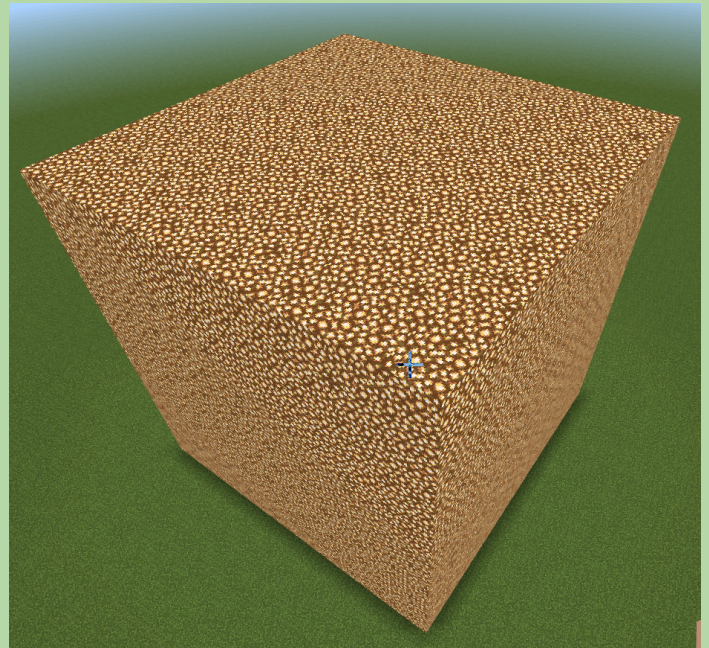|	
8. If you want to erase your platform, try using this code. It's kind of like Control+Z ("Undo")!	`/fill 0 0 0 19 0 19 air`
9. Now let's try digging a hole that measures 20L x 1H x 20W.	`/fill 0 -1 0 19 -1 19 air`
10. Can you fill the hole back in with grass?	`/fill 0 -1 0 19 -1 19 grass`
11. Now let's try building a wall that is 20L x 20H x 1W.	`/fill 0 0 0 19 19 1 acacia_log`

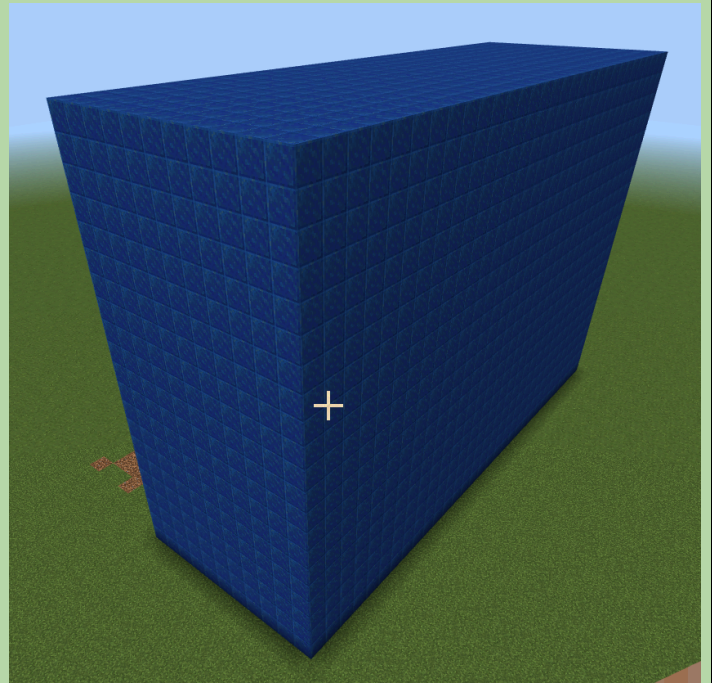| 12. Now "erase" the wall. | `/fill 0 0 0 19 19 1 air` |
| 13. Each of these platforms & walls are rectangular prisms. Can you construct a rectangular prism that measures 20L x 20H x 20W? | `/fill 0 0 0 19 19 19 glowstone` |

14. That prism that you just made is solid, made up of 8000 bricks! Let's make it again, but this time, hollow! (*In the screenshot, I am inside the prism looking up at a hole I cut out in the ceiling!*)
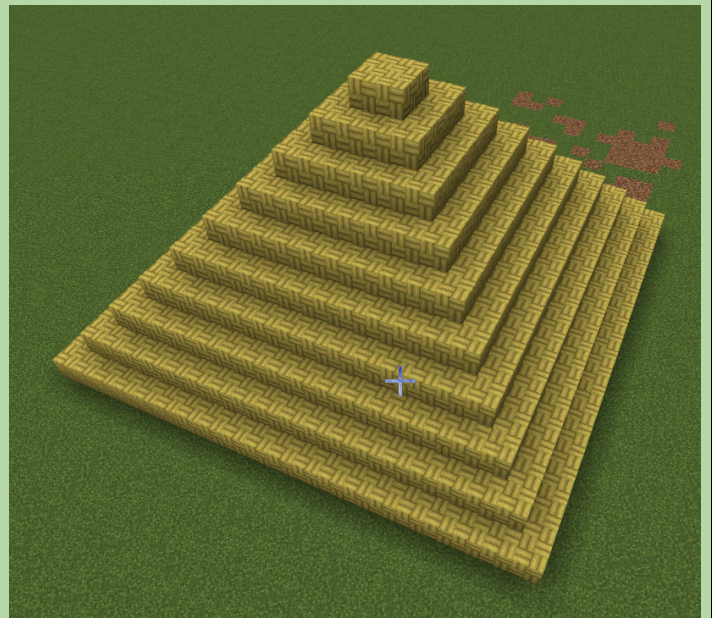
/fill 0 0 0 19 19 19 glowstone hollow

15. Can you make this building? It measures 10L x 20H x 30 W and is hollow. I used lapis_ore, but you can use any material you want!	
16. Can you use the fill command to construct this pyramid? The base measures 20L x 1H 20W, and it has 10 layers. So you will use the fill command for each layer. Try it yourself first. If you need a hint, scroll down to see the commands.	
17. One final note... There is a limit of 32,768 blocks that can be placed at one time using the fill command!	🤯

Pyramid Commands:

/fill 0 0 0 19 0 19 bamboo_mosaic
/fill 1 1 1 18 1 18 bamboo_mosaic
/fill 2 2 2 17 2 17 bamboo_mosaic
/fill 3 3 3 16 3 16 bamboo_mosaic
/fill 4 4 4 15 4 15 bamboo_mosaic
/fill 5 5 5 14 5 14 bamboo_mosaic
/fill 6 6 6 13 6 13 bamboo_mosaic
/fill 7 7 7 12 7 12 bamboo_mosaic
/fill 8 8 8 11 8 11 bamboo_mosaic
/fill 9 9 9 10 9 10 bamboo_mosaic

"Yes, it's a lot of commands, but it's much quicker than building it block-by-block! If you want your pyramid to be hollow, add hollow at the end of each command!" 😉

Yard Builder Application of the Fill Command

Suppose you find an area that you want to clear in order to build your Yard Builder map. You opened a new world, but need to prep the land for building. This is similar to when someone buys a piece of land to build a home. First the land must be cleared by bulldozers, excavators and other construction equipment. In order for you to do something similar in Minecraft, you could clear the land block-by-block, or you could use the fill command! Here's how!

1. First open a new world and find a space where you would like to build your Yard. It doesn't need to be perfectly flat. But just be aware that the cleared space will be 25 x 35.

   I opened a new Forest Biome world and found an area that I want to clear for my Yard.

2. Put your avatar on one corner of your future yard. Write down the coordinates. My yard will begin at coordinates of -12, 63, -1071

3. Now decide which directions you want your Yard to go in. For example, I want my Yard to go forward and to the right.

   Walk just a few steps forward. Note which number changes. My Z-coordinate changed (increased) when I moved forward.

   Then walk just a few steps right. Note which number changes. My X-coordinate changed (decreased) when I moved forward.

4. MATH WARNING!!! Based on my observations in step 3, I will need to subtract 25 from the X-coordinate, and add 35 to the Z-coordinate.

Coordinate	Original	Add/Subtract	New
X	-12	-25	-37
Y	63		
Z	-1071	35	-1036

5. Now the Y-coordinate controls the height or depth of the "digging". My elevation is at a Y-coordinate of 63. I will opt to dig down two blocks to a depth of 61.
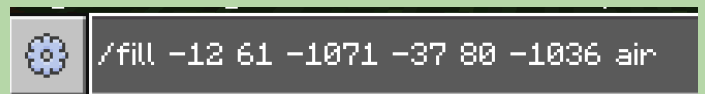
But I also have some trees to clear. So I will dig up to a height of 80.

6. So here are my coordinates that I will use.

Coordinate	Original	Add/Subtract	New
X	-12	-25	-37
Y	61		80
Z	-1071	35	-1036

7. Time to use the fill command to clear the land! Before you enter the command, verify your coordinates. There is no UNDO with this action!

`/fill -12 61 -1071 -37 80 -1036 air`

8. Congratulations!!! You now have a 25x35 cleared piece of land ready for your Yard Builder design!

This might seem like a lot more work than clearing brick-by-brick, but it really isn't and it is much more satisfying to see all of that land cleared with the click of a formula!