



Minecraft in the Classroom - Getting Started Guide

Minecraft is a popular multiplatform sandbox video game that supports both single player and multiplayer modes. Within Minecraft, players are able to build and craft everyday items, buildings, gardens and even entire communities, using blocks and then share their creations with others. The cubic geometry, functioning ecology, and object crafting opportunities within Minecraft serve to increase the authenticity of the virtual worlds and also make the game a suitable choice for multiple academic subjects.

In this guide we will review the steps necessary to create a Minecraft world and import 3D models created in other programs. However, before we start, it is important to review a few different ways in which teachers can use Minecraft in their classrooms.

Part I: Methods for Using Minecraft in a Classroom Environment

1. MinecraftEDU: <https://minecraftedu.com/>

MinecraftEDU is a third party Minecraft platform created by professional educators and supported by Mojang (the company that developed Minecraft). It was designed to simplify multiplayer use of the game within a classroom/computer lab environment and is a great option for teachers who want to support synchronous use of Minecraft in their class. Generally speaking, there are two parts to MinecraftEDU. The first is personal server software that allows an entire classroom of students to simultaneously play within a single Minecraft world. The second is a special version of Minecraft that provides teachers with extra control over classroom activities. For example, teachers can easily freeze student play while giving instructions and virtually observe student activities within the game to monitor progress. The only real downside is the cost: in order to get started you need to purchase both the server software (\$41) and the individual user licenses (\$14-18 each).

Additionally, unless you are going to be hosting your own server, you will need to pay an additional hosting fee for MinecraftEDU to host your server for you.

2. Private server with multiple licenses

Adventuresome teachers can also create their own private Minecraft server using [free software provided by Mojang](#). Like MinecraftEDU, this will allow an entire classroom to simultaneously play within a single Minecraft world.

However, the setup is more advanced and you will still need individual licenses for the Minecraft game (currently \$26.95 each for the PC version), which will not include the teacher controls provided by MinecraftEDU. If this still sounds like a good option for you, a detailed tutorial is available here:

http://minecraft.gamepedia.com/Setting_up_a_server

3. Single license

Even if you do not have the interest or resources necessary to purchase MinecraftEDU or install your own personal Minecraft server, you can still have your class create and share an entire world in Minecraft using a single license. This involves creating a Minecraft world; having students design 3D models for the world using free programs like Tinkercad, 123D Design, or SketchUp; importing these models into the Minecraft world using a free level editor like MCEdit; and putting any necessary final touches on the world within Minecraft. This may sound difficult or confusing, but the process is quite straight-forward and is described in more detail below.

Part II: Creating your Minecraft World

Whether you have decided to use a single Minecraft license or use a multiplayer server, you will need to create your new Minecraft world before you can invite your students (for multiplayer) and/or begin customizing the environment and adding structures. Thankfully, creating a new world in Minecraft is very simple, taking only a few moments. However, there are a few settings of which you should be aware.

First, when you create your new world, you will likely want to select the “Creative” game mode, which provides you with the ability to fly (which makes it easy to navigate your world), to access unlimited resources for building, and also makes it easier to destroy blocks. Additionally, it will also allow your Minecraft character(s) to avoid being killed by monsters.

Second, you will also likely want to turn the “Generate Structures” setting to “off”. This just means that when your new world is created it will not automatically generate villages, dungeons, and other structures. You can find this setting by clicking on the “More World Options” button on the same page where you select your game mode.

Third, in the “More World Options” page, you may also want to modify and/or customize your “World Type,” particularly the “Biome” option (see image below), which allows you to select between many different types of environments (jungles, plains, oceans, mountains, etc.).



When you’re finished editing your world settings, click on “Create New World” to begin. For a more in-depth tutorial, follow this link:

<http://www.howtogeek.com/school/htg-guide-to-minecraft/lesson12/>

Part III: Importing 3D Models

While you can construct your world entirely within Minecraft, you can also import 3D models that you have either downloaded from the Internet or designed in a third party program like Tinkercad, 123D Design, or Google SketchUp. These programs are free and easy to use and also make it possible for a teacher to engage an entire class with design activities with only a single Minecraft license.

For users who are new to 3D modeling, we recommend [Tinkercad](#), a free, online 3D modeling program from Autodesk that is designed specifically with younger users in mind. Tinkercad also makes it easy to download models specifically for Minecraft, using the *.schematic* file format, and provides some [useful online lessons](#) that can help your students get up and running with the site.

There are plenty of other good programs available, many of which allow for more advanced modeling, like SketchUp and 123D Design. So long as your program of choice allows you to export or download a model in *.stl* format, you can always import it into Tinkercad and then export it in *.schematic* format, which can then be loaded into Minecraft. Additionally, you can bypass this process by downloading *.schematic* files directly. Simply search for “.schematic Minecraft model download” and you will find many websites that provide these files (note that many of them are not free!). A good site to start with is <http://www.minecraft-schematics.com/>.

Once you have your *.schematic* file(s) ready, you will need to use a Minecraft file editing program to import them into your world. There are several such programs, but we recommend [MCEdit](#), which is free, open source, and easy to use. For an in-depth tutorial of the process for importing *.schematic* files, see this Autodesk tutorial: <http://blog.123dapp.com/2013/08/tinkercrafting>

In addition to the importing function, you may find MCEdit to be a useful tool both for organizing your world and building structures.

For more information about these and other 3D modeling programs, see the Meridian Stories’ *Introduction to 3D Modeling* guide.