

HOW CAN THIRD PARTY TOOLS BE USED?

Jeff Kuhn and Seann Dikkers

“I don’t think I would have ever even tried it without that mod in place. It makes running a server absolutely easy and seamless.”

- Minecraft Teacher

“I realized that Minecraft has servers that kids, up to 100 people, could connect to... and so I just started messing around with it and building the world”

- Eric Walker, Designer of World of Humanities.

Adding Possibility

This chapter profiles the more exotic, and jaw-dropping, creations of the larger *Minecraft* community. As teachers, tapping into this community can amplify using the game in the classroom. The wealth of information and expertise in this community shows the scale and possibilities inherent in *Minecraft* that serves as such an allure to our students. By the end of this chapter you should have a grasp of setting up classroom servers, modifications, importing custom maps, and I have included a quick reference guide to outstanding resources currently available at the end of the chapter.

If you have never spent time playing video games, it’s not just the initial excitement that makes them engaging it is the potential - or possibility. I would argue that possibility is more important than excitement, because possibility is the feeling the player puts into the game. Players initially play a game out of curiosity, but they embrace and play a game like *Minecraft* over time because they have projects, goals, expert achievements, and internalized hopes for the game. After a first exposure to *Minecraft*, most players look forward to trying new worlds, customizing servers, and import pre-generated worlds; these are possibility spaces. These kinds of customizations allow for the world itself to be part of the story for your learners.

For instance, in Bethesda Softworks' *Skyrim* the land of Skyrim is a character unto itself. Every facet can be explored; the mountains and forests are not just distant backdrops but fully rendered environments brimming with wildlife and brigands. Ubisoft's *Assassin's Creed III* features a historically accurate revolutionary-war era Boston, simmering with rebellion and detail so rich that the window frames of King's Chapel are exact. Both may not be appropriate for classroom use (yet!), but model how powerful a world can be when rich with detail and visual impact. Below you will see how to bring exceptional pre-made worlds into your classroom.

Yet it is not just the worlds that are important to gamers; it is what we can do in those worlds. Great games entice the player to explore. We play games because we want to make a difference in the worlds we choose to inhabit. We want to see the world shaped by our actions and ingenuity; it's why we play. We want to make our mark. When you learn how to import a world, you also learn by default how to use worlds as a student deliverable within your classroom. They can make their mark, tell their story, build their models... and turn it all in!

This chapter explores how we as teachers can 'mine' these dynamic worlds to create new possibility spaces for learning in the classroom. My goal is to present options that increase opportunities for classroom use and provide you language to ask for those things (say, with your technology facilitator), but leave more elaborate tricks, sources, and skills to the often updated internet.

The chapter begins with an overview of how to start using 'seeds', 'maps', and 'mods'. Then, the chapter concludes with a list of maps and worlds by subject areas. Throughout the chapter I have included ideas and suggestions for classroom possibilities for these seeds, maps and mods.

Add Classroom Possibilities with 'Seeds'

Underneath the blocky trees, past the gold ore and diamonds, past the bedrock an algorithm rests, it is what powers *Minecraft* - 'seeds'. When a new map is created, *Minecraft* generates a set of numbers and letters that will determine the characteristics and layout of the new map, the numbers are called a 'seed' and they uniquely identify every map made for *Minecraft* prior to a player moving the first block.

If you tell me your seed number, I can easily type it in to my *Minecraft* program and take a look at your map as it was originally generated. For many players this is their first step into a larger world. I will not be able to see what you have built on your map, but I will see your original starting map, so you can share unique landmarks, quirky bugs, or quickly show me how to find diamonds deep below the earth.

Seed trading is one of the first major activities to drive online Minecraft communities. Using seeds is easy, it requires no special modifications to *Minecraft*, and as such make an excellent introduction to using and saving unique maps. Accessing a unique seed is a simple process. Seeds are a great way to get new maps to play but require care; each time the algorithm gets an update the seed will produce another world. Finally, consider taking time to play different maps yourself! New seeds can dramatically change the game experience itself from map to map.

Sharing Your Map's Seed Number

- 1) Begin by opening up singleplayer Minecraft and create a new world, naming it Seed Test.
- 2) Once inside the game, press [T].
- 3) Type '/seed'. Minecraft will reply with your seed number.
- 4) Copy this seed number, write it down or you can take a screenshot [F2].

Next let's import the seed. First delete our last map named Seed Test, we can recreate the map now that we have the seed.

Importing Another's Map Seed Number

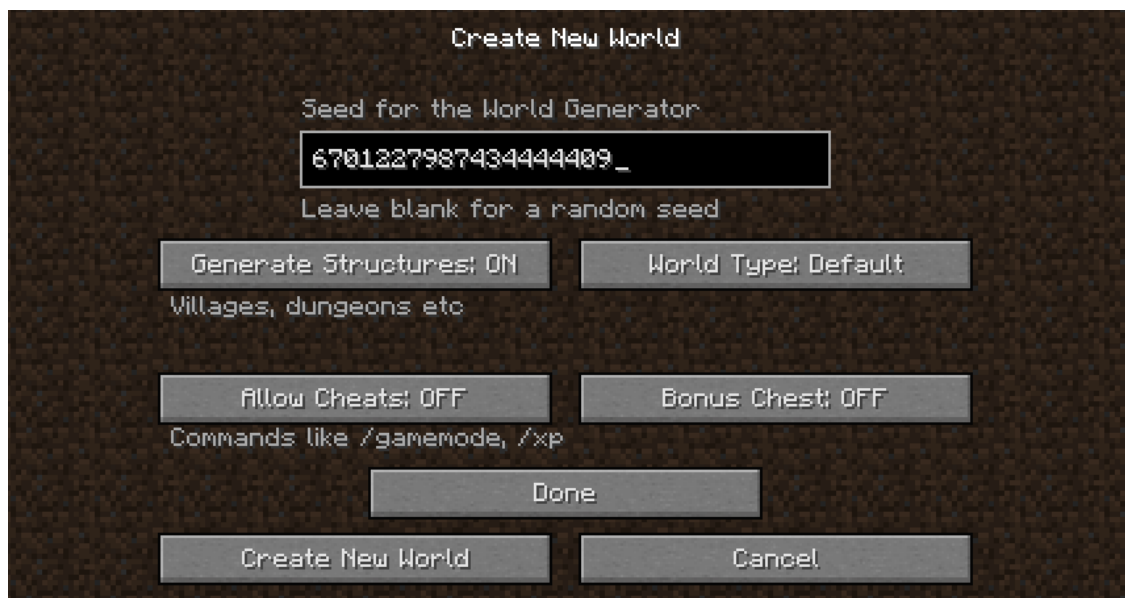


Figure 1: Copy your seed number on the Create New World screen

- 1) On the 'Select World' screen, select [Create New World].
- 2) On the 'Create New World' screen select [More World Options].
- 3) On the More World Options screen input the seed number.¹
- 4) You return back to the 'Create New World' page. Enter an original name for this world and you are set to open it up and play.

While seeds are unaltered products of the game itself, maps are player designed. These player maps are what have turned *Minecraft* into a phenomenon². Utilizing the wealth of resources online is a surefire way to get the students invested into your Minecraft classroom.

Classroom Ideas for Using Seeds

- Students can venture into different parts of the world mapping shorelines, mountains ranges, or discovering biomes and the flora and fauna within. Using grid paper your adventurers can create a world map, and because they are using the same seed, they will be able to combine their maps into a whole.
- Provide students a physical paper map with directions to a particular point of interest. Find this location or locations ahead of time and make sure they are far from the starting point (or 'spawn' point) so that they are hard to find without your directions. Challenge students to follow your Minecraft map.
- Use a seed number to provide a particular kind of map to students. This can serve as muse as they experience a specific geography or to write exploration journals in the vein of *The Worst Journey in the World*, by Apsley Cherry-Garrard or *South* by Ernest Shackleton. For example, if your class is reading *South*, you can use a seed that features extensive use of a polar biome.

Simple enough? Simply knowing how to grab a seed number and passing that along to others opens up a few exciting classroom possibilities. Once you get comfortable with that skill, it's time to play with importing maps.

Adding Classroom Possibilities with 'Maps'

Minecraft players can save and share designed worlds commonly referred to as 'maps'.³ 'Maps' are seeds that have been modified by players or showcase a particular player creation.

¹ Changing the [World Type:] variable can interfere with seed generation so leave it as Default.

² Great websites to find unique and interesting seeds are: <http://www.Minecraftseeds.info/> and <http://Minecraft-seeds.net/>

³ Note that 'seeds' are untouched 'maps'. Once you start building and want to show what you've built, you will want to share the 'map', not the 'seed'.

Maps show off projects and world designs that are stunning - and they can be educational. Imagine that instead of just reading about Johnny Tremain, students could tour Boston in 1776.

“I’ll have a room of fifteen computers and half the kids run their own servers. They are typing in each others ip addresses. They are hopping on each other’s servers. They are seeing what each other is doing.”

Maps range from the simple objects or buildings, like Shakespeare’s Globe theater; to larger projects, like a full recreation of *Harry Potter’s* Hogwarts, *Tolkein’s* Middle Earth, or⁴ the *Odyssey’s* Grecian World. Look to the end of the chapter, for a list of popular maps by subject area.



Figure 2: 1940s New York recreated block by block

You do not have to build awesome *Minecraft* settings, you can import them. The community around *Minecraft* is teeming with shared maps.

As a side note, make sure you properly cite your source - especially when you use it in class. Mapmakers encourage fans to share maps under the condition that the mapmaker is given proper credit. As Shirky (2010) describes, in *Cognitive Surplus*, failure to give credit is *the* crime of online communities. The use of any map in *Minecraft* is the result of a mapmaker’s labor, and therefore they deserve credit for their amazing work and this is a chance to model digital ethics to your students.

⁴ A great source for *Minecraft* maps is Planet *Minecraft*: www.planetMinecraft.com/

Minecraft community etiquette also asks that if parts or structures of a map are integrated, a 'sign' indicating the creator of the structure should be placed outside the main entrance within your world. Any student should be able to walk up to your *Parthenon*, for instance, and see who built it.

Installing Maps

Installing a few single player maps is great practice before moving onto custom maps. It has a slight intimidation factor at first but once the basic system is understood you'll be able to install any map you want. Maps are easily imported into *Minecraft* but the route differs slightly for PCs and Macs - we'll cover each.

First, you will need a data file to import. You can download these from community sites (bundled as a compressed, or .zip, file), or you can pull that file from your system if you want to share a world you have built.

#	WINDOWS OS	APPLE OS
1	Press the [Start] button.	Click anywhere on your desktop.
2	Type [%appdata%], in the 'Search' field.	Select the [Go] menu at the top of the screen, then [Go to folder...].
3	Double click the folder "Roaming\.minecraft\saves" ⁵	Type [~/Library/Application Support/Minecraft].
4	You are in the "Saves" folder. (To share maps, share any of these folders)	Find the "Saves" folder. (To share maps, share any of these folders)
5	To add maps, drag and drop into this folder.	To add maps, drag and drop into this folder.

This folder, once located, is your local information for each world you have played in. In *Minecraft* terms, this means that all of your buildings and designs are in these data files. When you share this folder, other players can see all you have done at the point you shared it. When you add another's world folder⁶ to this file, you will be able to see their work.

Installing maps works well if you are operating with single player accounts and maps on unique computers.

⁵ If the search results do not return "Roaming\.minecraft\saves", double-click the "Roaming" folder and look for it there.

⁶ Note that these are data files, not .exe files. You should never have to 'run' a program for this task.

Installing Maps... on a Multiplayer Server

Once the maps have been downloaded for single player installing them onto a multiplayer server is simple. First, if you pull a 'map' folder from online, you may have the luxury of handing that over to your organization's 'tech person'. (In fact, in many school settings, that person may not want you even loading *Minecraft* onto the school computers!)

"I'm blessed with an IT staff that is open and excited about this stuff."

This should get you started and enable you to set up a server for multiple players to see an imported 'map' together.

- 1) Find the map folder for the world you would like to install and download it to your desktop.
- 2) See the last section to open your *Minecraft* folder. Instead of "saves", look for a file called "server". Open it.
- 3) Find the "saves" folder here and move the map folder here.

Next we need to associate that map folder to the server. To do that we need to adjust the server properties.

- 1) Open the server properties file by right click on the file and select 'Open with' either Notepad on PC or TextEdit on Mac. This file controls the behavior of the server and can be used to change to fundamental properties of the server game.
- 2) In the server properties file, find the **level-name=**, which should be the fifth line of the list.

```
#Minecraft server properties
#Mon Aug 05 11:20:51 EDT 2013
generator-settings=
allow-nether=true
level-name=world
```

Figure 3: Mastering the server file opens new game possibilities

- 3) Type the name of the new map after the = with no space. It is critical that the name inserted into this line matches the name of the new map exactly, so it is best to copy/paste the name.

With the above instructions you be able to switch worlds on your server quickly depending on the subject matter of your class. For a list of worlds that you can bring to the classroom see the end of this chapter. Running a vanilla server can accommodate almost all classroom activities, but we may want to add a little panache to our world and for that we need modifications.

Classroom Ideas for Using Maps

Custom maps are a fast-track option for the classroom and can be incredibly useful when targeting a specific learning opportunity. We can use maps to place the students in scenarios or situations that foster particular skill sets.

- Explore the streets of an ancient Roman city as part of a history class, or recreate the adventures of Lewis and Clark in a blocky replica of frontier America - both available in the maps at the end of this chapter.
- Create redstone circuits to power an algorithmic logic board or to fabricate machinery such as railcars and mining equipment. The game mechanics that students must manipulate in these scenarios are the same mechanics used in simple programming.
- A class studying genetics can use dye to color sheep then breed them to study mendelian inheritance. As the sheep breed their color traits are passed to their offspring - certain colors are recessive while others are dominant 'genes'.
- Investigate the complex systems of supply, demand and resource management in a sustainability class by using Dr. Short's Tragedy of the Commons map at the end of the chapter
- Students reading *Harry Potter* can wander the halls of Hogwarts or engage in a Hunger Games scenario to bolster in an after school reading club.

Adding Classroom Possibilities with Mods

'Mods', or modifications, allow players to add options, new game rules, alter game content, modify the textures (appearance), or give players added abilities. Basically, you can add a mod to alter the core programming of the software - so they broadly can do almost anything to the game, but tend to be smaller changes that lend themselves to player, or classroom, preferences. For example in my writing class students experience the zombie apocalypse. I used mods to change 'skins' (the appearance of the player) of the creatures and made the creatures immune to daylight.

Some modifications have become large enough that they utilize their own launcher, which has simplicity issues for us as teachers and server hosts.

Some mods incorporate elements of other video games such as the *Portalcraft* mod. Others are just for fun - the *Natural Disasters* mod integrates random earthquakes and volcanic eruptions in a *Minecraft* map. Mods such as *Bukkit* are designed to streamline the creating and managing of servers and most single-player modifications have a server counterpart.

While not extensively covered in this chapter I overview the leading modification systems that exist outside of the official *Minecraft* game. Namely, I will review the major mod managers: 1) MinecraftEDU, 2) Bukkit, and 3) Forge. Any of which are well established and easy to use.

MinecraftEDU

Joel Levin has made an excellent *Minecraft* mod specifically for classroom use called *MinecraftEDU*. Over time it has expanded into a wide range of customs packs that has nearly turned *Minecraft* into entirely new games.

“We have a large number of building tools that make it easier for teachers to get their content in the game...we put in a large number of tools for ease of use to create structures and buildings or whatever. We have the server which is dead simple to use.”

Features:

- Pre-installed tools manage that students' movements and building abilities to create focused learning situations.
- Unique teacher tools such as information blocks, freezing student movement, and the ability to assign homework in game.
- Access to support material that includes lesson plans and curricular goals
- Included server tools that enable quick server installation and management.

Bukkit

The Bukkit pack is a set of server management tools designed to make the installation and use of *Minecraft* modifications easy for server managers. Over time it has expanded into a wide range of customs packs that has nearly turned *Minecraft* into entirely new games.

Classroom mods:

- MC MMO - This mod takes *Minecraft* into the realm of role-playing games such as *World of Warcraft* and *Final Fantasy*. It adds XP systems, party systems for group play, and thirteen skill sets that players can use to level-up. Altering this mod to make those skills sets reflect 21st century skills for the classroom would be a huge boost to classroom teaching.
- Multiverse - This staggering mod allows server hosts to create a series of interconnected worlds that can each be configured for unique configurations, biomes and even creature spawning.

Forge

Forge allows for installing and maintaining modifications in both single player and server games of Minecraft. It's widespread use and simple interface has made it a popular choice for modders and is a great choice for the classroom.

Classroom mods:

- MCA - Minecraft Comes Alive breathes new life into the game's generic villagers. The mod provides new skins, customizable dialogue and conversation trees for the villagers to better integrate them into the play experience.
- Buildcraft - This mod includes machines that can be constructed to dig for resources and build structures. A great mod for teaching engineering.
- Chisel - This mod is just one example of the many mods that incorporate decorative blocks to increase the level of design and customization of buildings.

We have tested seeds, saved maps and learned a mod or two. Getting comfortable with these functions in *Minecraft* takes practice and time, but doing it is great experiential learning. Keep in mind that *Minecraft* is very forgiving of mistakes so if you seem to have placed too many items in the wrong place, you can delete your entire Minecraft folder and start fresh. Each time *Minecraft* is initialized from scratch it will generate all the needed files and folders in the '.minecraft' folder. As you experiment with maps and mods never be afraid to start anew and give it another go.

Finally, there is an incredible community of teachers, players and programmers out there willing to help those truly lost so be sure to seek help as needed. As this chapter is dated, those communities will not. They will continue to post new ideas, videos, and connect people figuring out how to use not just Minecraft, but the next new thing too. Even remarkable teachers pointed out that connecting was key to their learning. For instance, World of Humanities builder Eric Walker:

"I first looked at videos of what people were doing like um, Steven Elford... who'd been using it for science purposes in the classroom and Joel Levin, himself, who has been using it in the classroom in his technology classes"

Get online, look at some videos, meet some new people, and start with a few of the suggestions above. Seeds, maps, and servers are more of a 'stage 2' skill level, but you will do fine if you just approach it step by step and with a few online friends.

REMEMBER

Play before you teach - scout maps before bringing them into the classroom. All the maps included in this chapter are classroom friendly, however maps found on the Internet may need to be previewed for content.

Be sure to visit the [Minecraft Teachers Google Group](#)

Maps and Mods can be found at:

- [Minecraft World](#)
- [Planet Minecraft](#)
- [Mojang](#)
- [Minecraft.net](#)

Be sure to check the *Minecraft* version number of the seed. Seeds are random and the alphanumeric strings used are not indicative of the type of world that will be created.

A Possibility List

Here they are, the maps. Each personally tested and played, these maps represent the wealth of resources available for the *Minecraft* teacher. The maps are organized by teaching context and from there listed alphabetically. All maps feature a download link and where possible a link to further information. Each map features teaching suggestions.

Social Studies

World of Humanities - Eric Walker

An educational map of immense scale, Eric's World of Humanities map has developed over time into a full scale RPG adventure where students can interact with characters and complete quests in a social studies-based narrative. While the rest of the maps all have specific content tied to them with World of Humanities that is almost impossible. In Eric's magnum opus students can study history, social science, cultures, geography, economics; if you can find it in a school curriculum you can find it in World of Humanities!

[https://dl.dropboxusercontent.com/u/53773950/World of Humanities/minecraftEdu - World of Humanities - May2013beta.zip](https://dl.dropboxusercontent.com/u/53773950/World%20of%20Humanities/minecraftEdu%20-%20World%20of%20Humanities%20-%20May2013beta.zip)

Minecraft Denmark - Danish Geodata Agency

Denmark has taken it as a source of pride to become the first country to be recreated at a 1:1 scale inside Minecraft - in Minecraft scale one block = one meter. Designed to get students interested in spatial data, the designers encourage players to explore the country and build a home of their own. The maps is a great choice for classes on geography, history and language arts. How long will it be before we see a language arts class create a Hamlet machinima? Currently the map exists on a server but can be downloaded - yet be warned it weighs in at a whopping 1TB.

<https://download.kortforsyningen.dk/content/danmarks-frie-geodata-i-minecraftverden>

Oakland Minecraft - The Museum of Art and Digital Entertainment

Even if you do not live in Oakland, this incredible map is less about what it is than how it was built. A faithful recreation of Oakland California, it is unique in that the builders were solicited from the news-aggregator website Reddit. The map builders were not from Oakland but used Google Maps and other online sources to recreate the city. Teaching the kids spatial thinking and skills? Have them examine a city via Google Earth and then build for accuracy in Minecraft. Imagine a messy classroom with students huddled around computers, sheets of butcher paper and chalkboard sketches as they build Chicago.

https://www.dropbox.com/sh/y1i3nr9o0pqyzxu/y_meOs4EDi/Oakland04.26.13.zip

website: <http://www.themade.org/node/184>

Project Zearth - Xoyjaz

This sprawling map feature five major cities and several villages spread throughout the world connected by road and rail. This map weighs in at an impressive 461MB but in it students could be separated into city groups to examine common core standards of competing beliefs and goals, methods of engagement, and conflict and cooperation. A great option is to place different classes into different cities and teach the topics of movement, region and human settlement. Create a disaster in one city; forcing the students to migrate into cities controlled by other classes could be a powerful way to teach the high school world geography course standards.

<http://www.planetminecraft.com/project/zeon-city/>

Roman Domus - WLhokies

A map of a fictional city of ancient Rome that strives for historical accuracy. The map features details such as impluviums, household shrines, and tablinum. Students studying Roman history could establish a Senate to run the city while the teacher - or clever student - instigates civil war, then bring peace through the exercise of new consolidated powers and the class can experience the fall of the Roman Republic and the rise of the Roman Empire.

<http://www.planetminecraft.com/project/roman-domus---historically-accurate-world-save-schematics/>

Project America Map - Blake

The continental U.S. is rendered into block form in this expansive map. Largely undeveloped, this map could be used for exploration, geography lessons or even a simulation of the Oregon Trail. Students can replicate the frontier lifestyle of early America or even run a simulation of the founding of America. After a few hours of playing this map my students began to call for rules and codes of conduct. While it's great to teach civic participation, when it derives naturally from student play it is epic learning.

<http://dudeguy.com/mceworlds/worldfiles/ProjectAmericaMap.zip>

The Tourist - Stratocrafter

This adventure map features four hours of content set in the Montmartre district in the north of Paris. True to its real-life counterpart, this map centers on the Sacré-Cœur basilica and replicates the streets of Paris to a remarkable degree. Students could use the map to create walking tours of Paris or explore the streets and journal what they find or using French to demonstrate the Common Core call for language and cultural understanding through create using of resources.

<http://www.planetminecraft.com/project/adventure-map-the-tourist/>

The Zone (Chernobyl Exclusion Zone) - tsarcorp

70% complete at the time of this writing, the map replicates Pripjat, Ukraine, the city abandoned in 1986 days after the Chernobyl disaster. A city which has been largely isolated since. Combined with readings on the events leading up to the disaster, students could draft first person essays on what they had to abandon as they evacuate the Chernobyl exclusion zone. Combine this map with the the Uranium Mod modification and high school students studying scientific inquiry and application could investigate the city to uncover what caused the mass exodus. Gamer Pro Tip: Students may recognize this map as Pripjat as the city was featured in the popular game *Call of Duty 4: Modern Warfare*.

<https://mega.co.nz/#!U5cECaQR!Ygu1kT3jvis5aqyyR36XxxTirN5BFA8GF1Gy3RnYdJs>
website: <http://tariqsarwar.net/zonecraft/>

Tragedy of the Commons - Dan Short

In this map players experience the depletion of shared resources and how to promote sustainability through co-operation. Dr. Short's places players in a glass dome with a limited number of trees to harvest as resources. Round one of the scenario seeks to educated players on the dangers of the tragedy of the commons while round two encourages players to develop strategies to prevent the depletion of resources. Common core standards to explore in this map include writing standards that demonstrate student ability to state an opinion in writing on the issue presented and support that opinion with structures in which related ideas are grouped to support the writer's purpose. This map is excellent for the Common Cores topic of sustainability.

<http://faculty.rmu.edu/~short/research/minecraft/MC-Tragedy-Commons-v2.zip>

United States Capitol Building - Senator Aubin

This replica of the Capitol Building can help students develop the inflated self-interests of Congressional members. Students can practice core topics of roles and systems in the heart of the U.S. government. While this map is an excellent external replica the inside of the building is largely unfinished and so requires a little prep time.

http://www.mediafire.com/download/u50npq5664o07w6/Famous_Buildings.zip

Vertoak City - fish95

Vertoak is a city-themed adventure map for *Minecraft*. All the buildings are fully furnished with hidden secrets and treasures. City maps like this one can be populated with villagers that will then begin to craft materials and trade with student players. Students can also begin to mine and craft resources to develop an economy to explore issues of resource scarcity and economic response to scarcity. Thriving city-style maps are excellent tools to explore economic decision-making, understand the issues of costs and benefits, and investigate economic alternatives.

<http://www.Minecraftmaps.com/creation-maps/vertoak-city/viewdownload>

Math and Science

Skyblock - Noobcrew

A classic map that has been downloaded over 5 million times, Skyblock features one tree, 20 blocks of dirt and a chest containing two items. What you do and how you survive is up to you. This is a great map to generate divergent thinking and problem solving skills.

<https://dl.dropbox.com/s/ye1mist5lgpda0y/SkyBlock1.1.zip?dl=1>

Survival Island Map - Ashien

Similar to the famous Skyblock, this map come with rules and challenges to increase the challenge level. Build a wheat farm, ten bookcases and a cobblestone generator all without leaving the island. Puzzle maps are excellent tools to generate communication and collaboration among students as they work through problems of spatial thinking and mathematical problem solving.

<http://www.mediafire.com/download/zca5iu3vpqmv2u/SurvivalIslandv1.zip>

Environmental Sampling - Dr. Dan Short

Dr. Short has created a series of interesting single-focus maps. This one focuses on methods scientists use to sample for pollutants. Besides making maps, Dr. Short has some great resources and a paper on using *Minecraft* in the science classroom. You can find more on his website, so be sure to check it out.

<http://faculty.rmu.edu/~short/research/minecraft/MC-Env-Sampling.zip>

website: <http://faculty.rmu.edu/~short/research/minecraft/>

The Periodic Table of the Elements - Dr. Dan Short

This particular map showcases a massive periodic table of the elements. The map does a great job of relating real-world elements to *Minecraft* resources such as copper and redstone. Yet not all the elements feature descriptors, leaving science students ample opportunity to fill in the blanks. This map is a great way for students to learn to define and classify minerals and called for in the Earth and Space Science strand of the standards.

<http://faculty.rmu.edu/~short/research/minecraft/MC-Periodic-Table.zip>

Writing

Globe Theater - GSACommando

Explore the home of Shakespeare's plays in this historical map. Combined with custom skins and machinima players of this map can stage and record the Bard's plays. For teachers unfamiliar with it, Machinima is the creation of movies using the real-time graphics of video games. *Minecraft* players have produced some phenomenal examples of machinima and developed considerable 21st century skills in the process. Staging a machinima version of a Shakespeare play would involve planning, collaboration, scripting, storyboarding, digital costuming, filming, editing and post-production. In the process they would have extended exposure to one of the greatest writings in English history.

<http://www.mediafire.com/download/egphma029p15gpd/GlobeTheatre.zip>

Kingdom of the Sky - Blame the Controller

Kingdom of the Sky is unique as it uses Youtube to create a voice over narration to the map. Designed as an adventure map, the world is perfect for exploring or questing. Use this map for some experiential learning fun before students develop written narratives focused on details and clearly structured events as called for in the Common Core.

<http://www.mediafire.com/download/3uhwsves4em49ll/KotSv14.zip>

PotterCraft - Musicdudez

This map aims to recreate Hogwarts and contains Hogsmeade, Diagon Alley, Ministry of Magic, and the Malfoy and Wesley residences. A creative literature class could use the map to inspire students to write fan fiction in the Potter universe.

<http://www.mediafire.com/download/ht4vmjbjmw3t7ht/PotterCraft+Pre-Release+1.zip>

website: <http://www.planetMinecraft.com/project/pottercraft--the-wizarding-world-of-harry-potter-in-Minecraft/>

Crafting Azeroth - Rumsey

The entirety of *World of Warcraft's* land of Azeroth is featured in this truly epic 24 GB map. While the team continues to work on Outland and Northrend, the Eastern Kingdoms and Kalimdor are available in the download. The map features enormous cities and expansive wilderness. Students can use the medieval backdrop for learning the 21st century skill of communication and collaboration as they build in-game communities.

<http://www.minecraftforum.net/topic/997352-crafting-azeroth/>

Herobrine's Mansion - Hypixel

This map is an example of the work of Hypixel, whom many consider to be one of the best Minecraft mappers. This is a map all teachers should explore as this is what our students do for fun after school. Hypixel has created many great maps and developed online fame as a result. It is cognitive surplus and the digital world at its finest and a fun map to boot.

<http://hypixel.net/threads/herobrines-mansion-adventure-map.200/>

Lord of the Rings Mod

The Lord of the Rings is an in-progress build of J.R.R. Tolkien's Middle Earth. This will include content from J.R.R. Tolkien's most famous work, the *Lord of the Rings* series, and eventually other related tales such as the *Hobbit* and the *Silmarillion*. Currently the mod is still in the early stages of development, but a new public beta download is released approximately every month. An after school fantasy book club could use the map to trace the travels of Bilbo and Frodo or create new adventures for their own Middle Earth characters.

<http://lotrminecraftmod.wikispaces.com/home>

WesterosCraft

This massive server is an active process of replicating George R.R. Martin's *A Song of Ice and Fire* land of Westeros. The server currently allows visitors with no build access and parts of the map are available for download - King's Landing, The Dreadfort and Winterfell at the time of this writing. An incredible example of the skillsets players bring to *Minecraft*, this server requires players seeking to help build the Westeros map must submit an application including examples of previous builds. The map of Winterfell could be used for K-8 social studies projects exploring the concept of feudalism and the resulting social systems.

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Bio

Jeff Kuhn is a writing instructor and technology consultant at Ohio University. Each semester Kuhn teaches a first year writing class using *Minecraft*. He has presented widely on the use of video games in higher education, specifically in the field of language acquisition. He has taught English as a second language in Japan and served as a teacher trainer in Peace Corps Mongolia. Since 2011, Kuhn has created a series of contextualized learning classes where students use *Minecraft* to experience events that serve as the foundation for writing journals. His current project is "Journaling the Zombie Apocalypse". In class students read selections of Max Brooks' *World War Z* and *The Zombie Survival Guide* while playing a modified version of *Minecraft* that replicates a zombie invasion. The project ends with students devising a zombie preparedness plan for the city of Athens, OH using what they learned playing *Minecraft*. Kuhn also worked on the U.S. Department of State's *Trace Effects*, a video game designed to engage students in English language learning. He is currently pursuing his PhD in Instructional Technology advised by Dr. Seann Dikkers.