

Exploration 2: Technology

Topic: Minecraft

Unit Outline Minecraft for Preservice Teachers

Overview:

I teach a course called K-8 Science and Math Technology. I have a lot of freedom in this course in terms of what content I teach. I haven't done this yet, but I would like to implement a unit on Minecraft. Some of my college students have played Minecraft, but most haven't. My goal with this project would be to provide my students with a brief overview of what Minecraft is, let them play with it, and then have them do an activity that could be used with students in grades 3-5. I've provided an outline for that unit below.

Materials:

- iPads
- Minecraft Pocket Edition app
(<https://itunes.apple.com/us/app/minecraft-pocket-edition/id479516143?mt=8>)

Day 1 - What is Minecraft and how do you use it?

- Provide background on what Minecraft is and how it got started.
- Show this video: <https://www.youtube.com/watch?v=RI0BN5AWOe8>
- Show videos of some amazing Minecraft creations:
<https://www.youtube.com/watch?v=xAaYGY1Mflw>
- Summarize benefits of using Minecraft to teach STEM.
- Students play with Minecraft.

Day 2 - Educators using Minecraft

I would connect with educators that are using Minecraft with K-12 students using Google Hangouts. I would have them talk to my students about how they are using Minecraft. They would share best practices, challenges, and benefits of using Minecraft. My students would have the opportunity to ask questions.

These are possible people that I would connect with:

- Michael Harvey, Technology Teacher at Falmouth Public Schools in Falmouth, Massachusetts (I know him through my PLN.)
- Jason Wilmot, teacher at Campbell Elementary School in Lincoln, Nebraska (We connected through one of my PLN connections.)

Day 3 - Grades 3-5 Activity

Students will complete a Minecraft activity similar to what might be used in a grades 3-5 math classroom. The activity will involve recreating a famous building to scale in Minecraft. They will have to explain how their building is drawn to scale using ratios, proportions, and units of measurement.

Note: I'm not exactly sure what this activity will look like yet. There are a lot of activities on Pinterest that I looked at. I'll try to modify one slightly to meet my needs. I like the idea of doing some with scale recreations.

Assignment:

Students will work in groups to create a lesson plan(s) that incorporates Minecraft. Students will need to follow a lesson plan template. They will need to identify specific math, science, and technology standards that their lesson addresses.