



Roman Villa

## CURRICULUM MAP AND LESSON

Using the Common Core State Standards as a touchstone, the team began a map of K-12 curriculum in the United States, fleshing it out to a granular level with individual concepts wherever we could. We supplemented this with our own educational experiences, research into what's being taught in the Elizabeth Forward School District, and – perhaps most importantly – with existing examples of where Minecraft has already been used in education.

Looking back to our first semester at the Entertainment Technology Center, we started a Building Virtual Worlds-inspired sprint on Monday: the goal of which is the creation of as many lessons as possible by next Friday, March 2nd. In addition to us each taking a different area based on our own backgrounds and expertise, we're all leveraging a different aspect of Minecraft's inherent strengths.

Anthony has begun creation on a lesson map exploring Roman Architecture. As the team's historian, he was excited to see an area of his own interest brought to life, and especially to explore Minecraft's ability to let students experience a 3d space. In his own studies, visual depictions of history were often limited to maps and diagrams – and he was curious to see how this sort of spatial model can help students better comprehend historical structures.

In a similar vein, Scott is developing a math lesson using spatial reasoning when applied to three-dimensional mathematics – in this case, volume. As a counterpoint to word problems or two-dimensional diagrams, Minecraft can allow students to truly visualize math in height, width, and depth. Also in math, Dave Faulkner is hoping to leverage the game and social aspects of Minecraft through mission-based lessons. Students in a class will have to come together with their collected findings to get a complete picture, and then analyze those findings with basic statistics.

Eugene is also working with game mechanics and teamwork – with a team minecart relay race, with carts powered by vocabulary comprehension. The lesson is a crazy mix of redstone circuits, frantic pace, synonyms, antonyms, mining, and movement – and has the advantage of being a highly modular and customizable lesson we can use across subjects or grade levels.

Finally, Yotam is exploring the scientific method within the world of Minecraft – a world that doesn't obey the same physical laws as our own, but does have its own rules. The Minecraft game world is a space that allows for easy data collection, and can be a great tool to teach this important process. “Is the blast radius of an explosive affected by surrounding materials?” Students will pose questions, collect data, draw conclusions, and share their results with the class.

We're hosting our own “interims” on Monday, where we'll all get to play through each other's rough lessons, provide feedback, and refine what we're building over next week. We're especially excited to host our client Joel Levin, “The Minecraft Teacher” of MinecraftEdu, for our Half Presentation on March 19, and look forward to working alongside him and getting his feedback as someone who's used Minecraft with great success in his own classroom. As early as the following week, we hope to go back to the Elizabeth Forward School District to playtest our lessons with students and teachers.

## QUIZ BLOCK

Romain and Dave Bennett have switched over to Quiz Block implementation in the last few days. We've successfully created this new block with its own visual interface in the game world. Our next step is to implement its advanced functionalities: allowing students to input answers, and the ability for teachers to write their own questions outside of the game environment and “plug” those into the game world, as well as the ability for teachers to collect results from each block: including answers chosen and attempts made by each student.

## LOOKING AHEAD

The end of next week effectively marks the halfway point for Pixel Pushers. Most of us are heading to the Game Developers Conference the week of March 5, followed by our Spring Break the week before Half Presentations.