

Unit 5: It's a Minecraft World!

Content Area: **Technology**
Course(s): **Technology**
Time Period: **Generic Time Period**
Length: **Weeks**
Status: **Published**

Unit Overview

Students will be given their first introduction to Minecraft EDU. Students will be presented with a simple world to build in. Students will spawn into an area with a teleport block. They can teleport out to the stations numbered 1-25. From there students will create a story that they will design in Minecraft. Students will be given an introduction on Civil engineering.

Standards

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| TECH.8.1.5.A | Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations. |
| TECH.8.1.5.A.CS1 | Understand and use technology systems |
| TECH.8.1.5.B | Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology. |
| TECH.8.1.5.B.1 | Collaborative to produce a digital story about a significant local event or issue based on first-person interviews. |
| TECH.8.1.5.B.CS1 | Apply existing knowledge to generate new ideas, products, or processes. |
| TECH.8.1.5.B.CS2 | Create original works as a means of personal or group expression. |
| TECH.8.1.5.C.CS1 | Interact, collaborate, and publish with peers, experts, or others by employing a variety of digital environments and media |
| TECH.8.1.5.C.CS3 | Develop cultural understanding and global awareness by engaging with learners of other cultures. |
| TECH.8.1.5.C.CS4 | Contribute to project teams to produce original works or solve problems |
| TECH.8.1.5.E.CS1 | Plan strategies to guide inquiry. |
| TECH.8.1.5.E.CS2 | Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. |
| TECH.8.1.5.E.CS3 | Evaluate and select information sources and digital tools based on the appropriateness for specific tasks. |

Essential Questions

- How can I use *Minecraft* to facilitates cooperation and teamwork among my classmates?
- How do civil engineers work around complex problems when they design?

Application of Knowledge: Students will know that...

- Identify appropriate problems for technological design.
- A system has interrelated components designed to collectively achieve a desired goal.
- by employing a digital environment or media, it is possible to interact, collaborate, and publish with peers, experts, or others.
- Civil engineers design a structure
- Engineers have an impact on the world they live in and their daily lives.
- in a virtual environment, it is possible to build practically anything you can imagine
- The design process is fundamental to technology and engineering

Application of Skills: Students will be able to...

- Communicate using digital media
- Compare and contrast the adventures and experiences of characters in stories.
- Create a 3D environment
- Describe and recreate historical landmarks
- Describe characters, settings, and major events in a story, using key details.
- Use illustrations and details in a story to describe its characters, setting, or events.
- Work with a team to produce original works or solve problems.

Assessments

The teacher will informally assess students throughout the unit by observing their natural usage of the following skills:

- Navigating through a 3D environment
- Completion of activities on <http://www.pbs.org/wgbh/buildingbig/index.html>

Suggested Activities

- Students will start each class by navigating to Google Classroom and responding to a writing prompt. In responding to the writing prompt, students will be collaboratively conversing with each other and their teacher digitally, using their schema of keyboarding and mouse skills.
- Engineer of the Week: Each week, a new engineer will be briefly introduced to the class, highlighting their impact on their current world.

Minecraft:

- Download historical landmarks to the server and have students virtually walk through the 3D environment
- Have students recreate landmarks and create enhancements

- Students will explore <http://www.pbs.org/wgbh/buildingbig/index.html>

Activities to Differentiate Instruction

- Behavior modification reward system to encourage time on task so that work is completed
- Partner with a capable learner. Closely monitor partner work
- Use Lego Story Starter to create and outline their stories.

Enrichment Opportunities:

- Minecraft Math: Common Core High Interest Story Problems. Students are playing as the character Steve and are in survival mode and have to solve math problems in order to keep alive.
- Students can create a 3D structure and use a 3D printer to print their creation

Integrated/Cross-Disciplinary Instruction

ELA: Storywriting, sentence structure, chain of events- Students will create their own individual stories based on what their class creates in the MineCraft world

Math: Block building and sequencing- Students will be using various blocks and have to follow directions with the amount of blocks and the colors in which they are laid out.

Resources

- Minecraft
- 3D Printer
- <http://www.pbs.org/wgbh/buildingbig/index.html>
- <https://www.youtube.com/watch?v=owHF9iLyxic>
- <https://www.youtube.com/watch?v=fxJWin195kU>