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

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 componenets 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 enviroment
- 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 enviroment
- 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