INFORMATION TECHNOLOGY CLUSTER

LESSON 5

Lesson Plan Title: Coding with Minecraft: Coordinates	***Instructor:***

Suggested Total Time for Lesson (minutes): 60 mins

Content Focus - What will Students Learn? (Content Skill Sets)

- Introduction to Coordinates
- Coding with Coordinates
- Automating Actions with Coordinates
- Get Creative with Coordinates

Materials and Resources- What do you need to assemble and prepare before the lesson?

Materials:	***Resources:***
N/A	Coding with Minecraft Unit_3_Coordinates Coding_with_Minecraft_3_Coordinates_Presentation

Lesson Outline: What learning activities will your students do?

Time	***Sequence/Description of Learning Activity***
	Get Started/Explain: Note: • You will need to gather the additional materials for the unplugged activities: Lesson A: Access to Map app or physical maps/globes, index cards, pencils, or pens. Lesson B: Index cards or blank pieces of paper, Masking tape or painter's tape (optional). • Remind students that there may be more than one solution for each of the activities. • Students should keep a coding mindset. As with any other sport or activity, you must practice to get better. Coding is no different.
	Discover/Engage/Practice: Lesson A: Introduction to Coordinates (Slides 1-32) Teacher will review the lesson objectives with students. Teacher will describe/demonstrate how Coordinates in Minecraft work. Provide visuals and or model for students. Students will demonstrate an understanding of the Handy Tips X, Y, and Z axis orientation. Teacher will introduce students to Absolute World Position and Relative Player Position Students will complete Absolute World Position and Relative Player Position Calculations. **Be sure to provide examples to students provided within the guide.** Unplugged: World Landmarks: Teacher will have students utilize some real world coordinates via Mapp App, Globes or Physical Map utilizing Latitude and Longitude. Example State Capitols, Stadiums, Swing Locations. Have students calculate the locations based of latitude and longitude and then relative to their position currently. Plugged: Minecraft: Students will log into Minecraft: Education Edition and Navigate to the Coding With Minecraft Subject Kit. Students will select Unit 3: Coordinates Students will follow steps for the Coding Activity: Compass Rose **if time permits try extension activities**
	Check for Understanding/Summarize/Close: What other ideas do you have about how you can use positions when coding? What's the difference between absolute world position and relative player position?

Modifications, Support, and Extensions (for those students with IEP)

Reflection- Did the students learn the content outlined in the lesson focus? Why or why not?