

Fostering Enduring Interest in STEM through Exoplanet Education and Interactive Exploration and Creation of Potentially Habitable Worlds | 1906873

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<http://whimc.org> (all resources free for download)

Project Description

The What-If Hypothetical Implementations in Minecraft (WHIMC) project provides computer simulations that seek to engage, excite, and generate interest in STEM. Using Minecraft, learners have the opportunity to interactively explore the scientific consequences of alternative versions of Earth via “what if?” questions (e.g., “What if Earth had no moon?”) as well as several known exoplanets. On a server, they make observations, collect data relevant to supporting life (radiation, atmospheric composition, temperature), and build habitats for survival.

Key Achievements

- What have you **accomplished** to date?
 - Fully functional server with 12+ worlds.
 - Coordinated effort with planetariums and PBS NOVA Labs.
- What have you **learned**?
 - Minecraft can be effective for STEM

Audience & Settings

Audience: middle school learners, informal educators

Disciplinary area: Astronomy, Engineering, Earth Science

Learning environment: Java Minecraft, after school programs, summer camps

Access and Inclusion

- Minecraft’s flexibility: enables a high degree of personal expression and engagement
- Partnerships: community centers, nonprofit organizations serving diverse audiences.
- Access: Minecraft server online, low hardware req. and setup

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(click image for 3-minute video)

STEM FOR ALL 2021 STEM FOR ALL VIDEO SHOWCASE COVID, Equity & Social Justice, May 11-18

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Jeff's Activity

WHIMC: Using Minecraft to Trigger Interest in STEM

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The WHIMC project seeks to promote interest in STEM through the design of engaging, Minecraft-based learning experiences designed for middle school aged learners to explore scientifically

DISCUSSION (26) EDIT PRESENTERS' CHOICE VOTE FOR PUBLIC CHOICE

1177 VIEWS