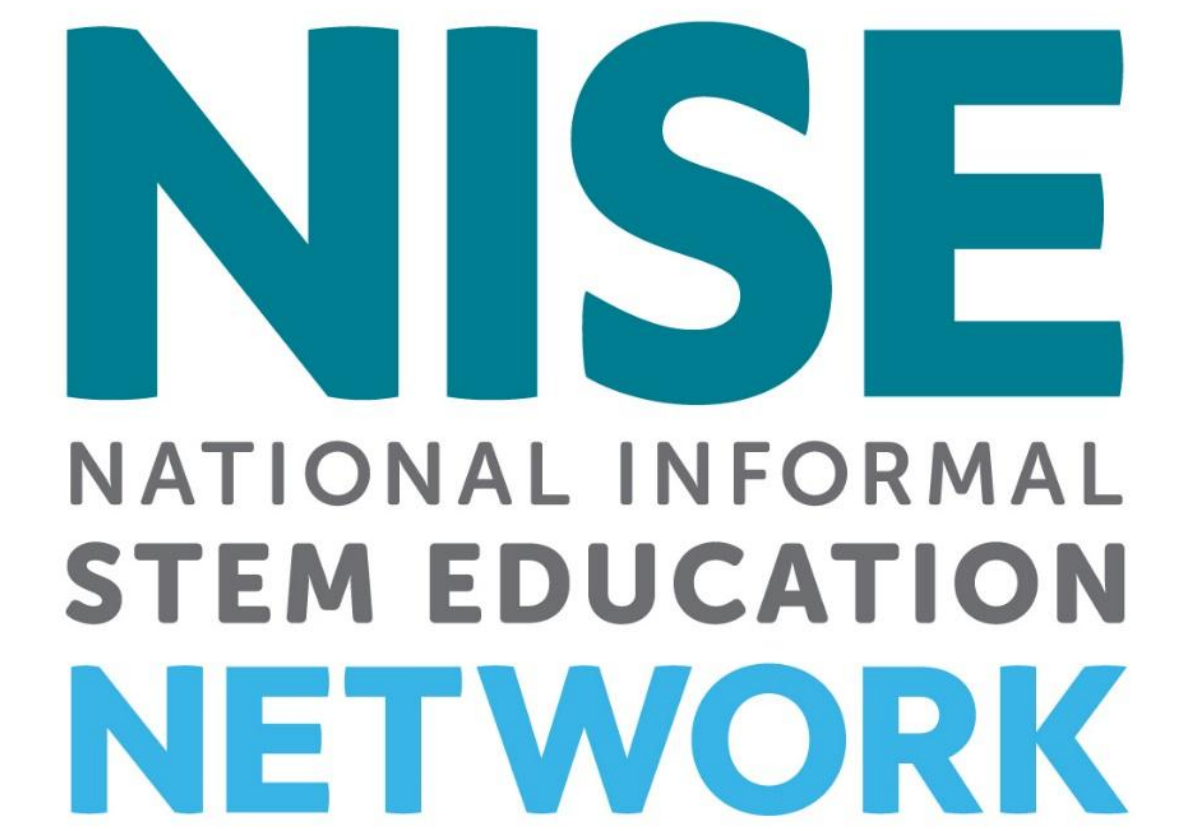


Using Games to Transform Science Center Experiences:

Moon Adventure Game

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Moon Adventure Game is a STEM educational game that immerses players in scenarios related to lunar science and exploration. The project team collaborated with subject matter and game design experts and utilized unique NASA assets to create a game designed for use in informal educational settings. The game was implemented by NISE Network partner organizations across the United States to engage public audiences in learning about space exploration, science, and engineering, especially families with children and students in grades 4-8.

350 Kits Distributed Across U.S.

The Moon Adventure game was distributed by the National Informal STEM Education Network (NISE Network) together with the Explore Science: Earth & Space toolkit in 2020. The physical toolkits were available to informal learning organizations in the United States through a competitive application process. Digital game materials include detailed instructions to put together your own copy of the game and can be downloaded for free.

Learning Goals

- Strengthen 21st century skills related to collaboration, innovation, critical thinking, and problem-solving
- Increase interest in Moon and space exploration
- Develop a sense of science identity and confidence related to learning about the Moon and space science
- Learn new content knowledge about the Moon and/or space exploration

Professional Development

Professional development resources for informal educators included:

- Written training manual with extension activities and suggestions for using the game in different settings
- Two online workshops that featured ways to adapt the game for camps and a variety of other audiences
- Training videos for set up and facilitation

www.nisenet.org/moongame

The project is led by Arizona Science Center (Phoenix, AZ) and Arizona State University (Tempe, AZ) in collaboration with the National Informal STEM Education Network (NISE Network).



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Immersive Storyline



The premise of the game is a fictional story grounded in actual NASA science and research about what people might need in the future to live and work on the Moon. The challenges are based on real scientific concepts connected to lunar exploration. Players assume the role of astronauts living and doing research in an outpost on the Moon. As players conduct research, a moonquake causes significant damage to the life support systems on the outpost. Survival on the Moon requires teamwork. Can players work together to quickly restore the necessary systems to survive?

