**Martian Greenhouse**
*A Learning QUEST for High School Students*

Student Driven / Teacher Facilitated / Industry Inspired and Informed

**Guiding Question:**
How can we grow plants on Mars?

**Description:**
Subject matter experts from Lockheed Martin and the American Institute of Aeronautics and Astronautics (AIAA) will serve as mentors in the design and direction of the project. The collaboration will be virtual. (Asynchronous and Synchronous). Experiential learning will be a priority as students actively participate, create solutions, take initiative, and apply what they learn to the real world. Every effort to listen to the "student voice" will be made.

**Outreach:**
Rural and international students will be invited to collaborate so that the proposed solutions are global solutions. Applied learning and 21st-Century Skills will be strengthened as students learn real-world problem solving with subject matter experts who are real-world problems solvers. Solutions will be presented to Middle School Students.

**Educational Partners:**
Eric Wilson, Colorado School of Mines, PhD Student, Space resources Program
Anne Tweed, Director of STEM Learning Solutions, LLC in Denver
Gregg Cannady, Collaboration and Concept Development, STEM School Highlands Ranch

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