Participatory Exploration for Inspiration and Education (12)
Educating the Next Generation (2)

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CONCEPT FOR A LARGE SCALE PARTICIPATORY SPACE EXPLORATION PROGRAM THAT ACHIEVES EXPLORATION GOALS AND SUPPORTS NATIONAL EDUCATIONAL OBJECTIVES

Abstract

Battelle Memorial Institute, the world's largest non-profit independent research and development organization, is working to change the way children are educated by immersing them in cross-curricular, project-based learning delivered by teachers trained to do so. Battelle has made significant impacts on STEM education through active participation in strategic partnerships and networks such as the Ohio STEM Learning Network and the Tennessee STEM Innovation Network, and through the establishment of unique STEM schools such as Metro Early College High School in Columbus, OH.

Battelle believes that Participatory Space Exploration holds great potential for engaging large numbers of students in hands-on space exploration projects that immerse the students in activities that educate, inspire, and allow them to create a future high technology economy in space, where the Earth's economic sphere is extended to the Moon, Mars, and other parts of our solar system. Seeing the tremendous potential for highly effective STEM education initiatives within a Participatory Space Exploration framework, Battelle is developing concepts for "massively participatory" programs that would involve tens of thousands of students in the exploration and prospecting of the lunar surface as a precursor to large scale exploitation of lunar resources for use on Earth.

Battelle believes that by actively engaging students in space exploration and Earth science projects throughout their educational experience, we can create a generation that is excited about and supportive of space exploration and earth science; understands the challenges and opportunities involved; and is already experienced and "primed" for the missions ahead. Participatory Exploration offers the Nation and the world community a unique and significantly impactful opportunity to cooperate, on a large-scale, in the exploration, discovery, and possible economic exploitation of the Moon, Mars, and other celestial objects.

This paper describes a bold concept for a large scale program of Participatory Space Exploration that has the potential to engage, educate, and inspire an entire generation of future scientists, engineers, and entrepreneurs like no other program previously attempted.