



Verizon Innovative Learning explorer lab

An immersive STEM learning experience for grades 6-8

about

The Verizon Innovative Learning explorer lab is an entirely new way for middle school students to discover concepts of engineering design. The explorer lab is a shared immersive learning experience that combines movie-quality video, special effects, and hands-on educational gaming to create a learning environment that gets kids excited about science, technology, engineering and math (STEM) – right in the school parking lot.

Onboard a customized motor coach, students experience a futuristic research lab that transports them to extreme environments from underwater to the arctic, and even to outer space. For the 2017-18 school year, the explorer lab Mars Discovery Program lands in DC bringing students to the red planet for engineering challenges.

The explorer lab was created by Verizon Innovative Learning, the education initiative of the Verizon Foundation. We need more kids to see the world of possibilities available to them. Learn more at weneedmore.com.

schedule

The explorer lab will serve DC public middle schools in our pilot year (2017-18). We hope to serve more than 5,000 DC students during the program's first year.

Teachers may request to have the explorer lab come to their school beginning in August. Learn more at www.mdbiofoundation.org/explorerlab

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curriculum

The explorer lab curriculum has been developed to meet Next Generation Science Standards (NGSS) for engineering and design (MS-ETS-1, MS-ETS-2, MS-ETS-3).

Student explorers will experience an interactive tour of the solar system which ends with a landing on Mars. Following the landing, each student will use a tablet to design their own Mars rover.

Explorer lab experiences are designed to fit into a typical 30- to 45-minute class period, but can be extended for longer class periods. Explorer lab activities are led by MdBio's professional science educators.

learning objectives

- Engineering and design: Students practice the engineering and design process that factors in tradeoffs and consideration for environmental constraints.
- STEM careers: Students experience relevant and in-context STEM missions that ignite curiosity and interest in STEM careers.
- Space and scientific practices: Students engage in scientific practices (such as analyzing evidence, planning investigations, and collaborating) through the context of space-related content.