STEMworks – STEM Advisory Council's Approved STEM Program
October 2017

FIELD TRIPS TO THE DISCOVERY

PROGRAM OVERVIEW

The Terry Lee Wells Nevada Discovery Museum, in Reno, Nevada (The Discovery) seeks to inspire by being the place to experience science. The Discovery's Field Trip Program gives Pre-K through 8th grade students an opportunity to participate in hands-on, standards based learning experiences focused on science, technology, engineering, art, and math (STEAM) concepts. We work to create an experience that does the following things: creates interest and motivation within STEAM fields, and enhances learning experiences by being a place where students can learn with and from others. We also aim to give students an opportunity to engage in scientific reasoning and reflecting on the nature of science, while learning the importance of iteration and personal effort in learning. Finally, we empower students by creating experiences that demonstrate the relevance of the tools and language of science.

TARGET GRADES

Pre-K through 8th grade.

A UNIQUE OR SPECIAL FOCUS OF THE PROGRAM

The Discovery develops and delivers at least ten Discovery Labs (45-minute lessons) tied to Common Core and Nevada Academic Content Standards in Science (NACSS) each academic year using best practices for science instruction, and we combine these labs with powerful hands-on, free choice gallery exploration to create a memorable and inspiring out-of-school learning experience.

THE PROGRAM'S IMPACT ON STUDENTS

The Discovery uses informal science to change how students and teachers think of science, and encourages visitors to see themselves as scientific thinkers who can use what they know about science, technology, engineering, art and math to solve problems.

SPECIFIC SKILLS STUDENTS WILL LEARN

Discovery field trips are designed to increase each students' appreciation for STEAM concepts. Students develop 21st Century Learning Skills like collaboration, communication, observation, creativity and imagination, critical thinking and problem-solving. The free choice exploration of the museum's hands-on galleries fosters each student's sense of curiosity as they explore things in the museum that feed their personalized interests. Informal environments help increase the range of social resources and networking to achieve goals. Along with content knowledge, the scope of valued learning outcomes for informal learning activities at The Discovery include social, emotional, and developmental outcomes (Fenichel and Schweingruber, 2013). These outcomes are reached both individually and in groups. Many of The Discovery's exhibit pieces are designed with collaboration in mind to encourage these goals. For example, while learning about four types of renewable energy forms in Nevada, visitors must work together in order to light up all of the letters in the Reno Arch. The lab component of this exhibit allows teachers to tailor the experience to their students' grade level standards, and the developmental needs of the students. It is also our hope that Discovery Lab experiences can serve as a professional development opportunity for classroom teachers to observe best practices in standards-based STEAM instruction.

RESOURCES PROVIDED TO EDUCATORS

Educator resources include Discovery Labs, as well as pre- and post-lesson plans for each lab and Gallery Guides to connect student learning to specific hands-on exhibits during museum exploration. We also offer resources on our website to help student understand what types of experiences they can expect from a free choice science center environment.

WEBSITE

Field Trip Program web page: https://nvdm.org/learn/field-trips/

CONTACT INFORMATION

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