



Nevada STEM Advisory Council List of Recommended STEM Programs February 2023

TECH TREKKER

PROGRAM OVERVIEW

Tech Trekker is a nonprofit organization that aims to increase students' exposure to and engagement in modern science and engineering tools to encourage them to pursue STEM fields in the future. Tech Trekker is run by a team of UNLV faculty and students in a wide variety of fields who provide an interesting range of technology to students in the Las Vegas community. The Tech Trekker Mobile STEM Lab brings technology and standards-based science and engineering lessons directly to teachers' classrooms. The organization emphasizes critical thinking, problem-solving, teamwork, and data analysis through a variety of interactive and engaging learning experiences. Tech Trekker believes that learning can and should be fun, and this organization strives to create an environment that reflects that philosophy.

TARGET GRADES

K-12

A UNIQUE OR SPECIAL FOCUS OF THE PROGRAM

Tech Trekker is a STEM outreach program, led by UNLV students, that aims to provide support and hands-on experience with technology to K-12 schools that lack access or resources to teach STEM-related subjects, by delivering assistance and technologies directly to teachers and students for free.

THE PROGRAM'S IMPACT ON STUDENTS

Since 2019, Tech Trekker has made at least 50 school visits (elementary through high school) and participated in community events in Southern NV, offering a supportive and interactive STEM experience to over 6,500 students and 300 teachers.

SPECIFIC SKILLS STUDENTS WILL LEARN

NGSS practices:

- *Engineering: Students apply scientific principles and engineering design to solve real-world problems and create new solutions.*
- *Coding: Students learn computational thinking and use programming languages to develop websites and coordinate robots.*
- *Design: Students apply creativity and design thinking to develop and improve systems.*
- *Data analysis: Students learn how to collect, organize, and analyze data to draw meaningful conclusions and make informed decisions.*
- *Problem-solving: Students use a variety of approaches to identify, define, and solve complex problems in a collaborative and iterative manner*

RESOURCES PROVIDED TO EDUCATORS

NGSS-aligned:

- *Solar Activities: Solar powered fan/light kit, Off-grid system, Sound to light conversion, Solar thermal water heater*
- *3D printers: 3D modeling in CAD software*
- *Robots: Sphero Mini, Sphero indi*
- *Design Activities: Engineering design, website design*
- *Other Equipment: Thermal camera, Water filtration, Spectrophotometer, Surveying tools and more!*

WEBSITE

<http://techtrekker.egr.unlv.edu/>

CONTACT INFORMATION

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