

Tribal Gaming Community Application Briefing Non-Profit Submission

Tribal Gaming Community Applying To
Fort McDowell Yavapai Nation

Name of the Non-Profit Organization
Firewheel STEM Institute

Does the Non-Profit Organization have IRS Tax-Exempt Status

Yes

Contact Information

Glen Pohle
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480-710-7245

Application Priority Areas

Education

Title of the Project

Firewheel Mobile STEM Center

Amount Intended to Request

\$15,000

Purpose of the Grant

Firewheel STEM Institute's mission is to bridge the Science, Technology, Engineering, and Math (STEM) divide in underserved populations in our communities to prepare them for the 21st century workforce. Through our Mobile STEM Center, Firewheel provides substantive STEM instruction and support to students from underrepresented communities in STEM fields who lack high-quality STEM enrichment programming through their schools or other organizations. Our program helps increase students' knowledge of STEM topics and ignite excitement about STEM and STEM careers.

These impacts are important because, according to the National Science Foundation, individuals need STEM competencies to succeed in any professional position. Inspiring more students to choose STEM careers is also important to help fill the rapidly growing number of available STEM positions. A grant from the Fort McDowell Yavapai Nation will help enable Firewheel to deploy our Mobile STEM Center to students who would not otherwise have access to the type of hands-on STEM experiences that our program can deliver.

Project Summary

Firewheel STEM Institute respectfully requests \$15,000 from the Fort McDowell

Yavapai Nation to support our Mobile STEM Center during fiscal year 2027. Firewheel deploys its Mobile STEM Center (affectionately known as the STEAM Engine) to deliver a pop-up STEM classroom and hands-on STEM experiences wherever they are needed. The STEAM Engine is battery-powered and connected to the Internet via Starlink, so it can operate entirely off the grid, enabling us to offer programming anywhere. The STEAM Engine comes equipped with 10 laptops, four 3D printers, one dual laser engraver, and one CNC mill. Firewheel uses this equipment to engage students in exciting projects that entertain and inspire them while also teaching them valuable manufacturing skills.

Our experienced educators, many with industry experience, engage students in activities such as 3D printing, model rocketry, astronomy, solar oven building, LEGO Spike Prime robotics, and basic electronics. Students leave with a tangible product they have created, building their confidence and ability to envision themselves in STEM fields. Many activities also require collaboration, providing opportunities to learn life skills like teamwork, problem-solving, and communication, which are vital to career success.

Firewheel is dedicated to ensuring that all students have access to meaningful STEM experiences, regardless of their socioeconomic background or the school they attend. Our STEAM Engine enables us to effectively deliver STEM experiences and the benefits they bring to deserving but historically underserved populations in Chandler and surrounding communities.

Impact on the City of Chandler

The projects delivered by the STEAM Engine are adapted from our core, year-round programming at our Chandler STEM Center, where we guide students through advanced robotics and fabrication. This mobile program ensures the same standard of impactful, skill-based learning reaches students in every community. At each STEAM Engine event, our school partners choose 2 to 4 activities, lasting 1 to 2 hours each, that supplement their school curriculum and give students a chance to apply their classroom learning.

Address of Non-profit Organization the City of Chandler will Send the Tribal Community Grant Payment

Address

3225 N Washington St.
Chandler, Arizona. 85225

Contact Name for Receipt of Payment

Glen Pohle