



RE: Nevada PE Foundation STEM Outreach Sponsorship Opportunities

Dear Engineering Professional & STEM Advocate:

Engineering has played one of the most, if not the most, important role in the improvement of virtually every aspect of human life. Practically everything that surrounds us in the modern world is the result of man's ability to transform concepts, raw materials, and possibilities into practical, working goods and services. Behind every step forward stands an engineer!

The Nevada PE Foundation both "inspires the next generation of socially and environmentally responsible leaders" and "supports science, technology, engineering and math (STEM) education." Outreach to K-6 is a new area, recently undertaken by the Foundation. It is based on Trustees' observations that there is both inadequate contact with engineering professionals in the lower grades (K-6) and also insufficient resources in the public schools' lower grades to provide hands-on activities in engineering design and testing. It is the intent of the Nevada PE foundation, through its outreach activities, to address these deficits in the primary grades for schools in Nevada.

The Foundation has developed three different self-supporting kits, contained in 5-gallon paint buckets that contain engineering design and testing activities for primary school students.

- **Activity #1 - Hoop Glider**, aimed at lower elementary grades (preK-3), introduces students to the engineering design process through building, testing and improving a simple glider made from a straw and two loops of construction paper.
- **Activity #2 - Pop Fly Catapult**, better suited to the middle elementary grades (3-6), asks students to solve the problem of launching a ping pong ball with a hand or foot operated catapult. Students have the opportunity to build, test and evaluate their catapults, and then re-build and test again, a catapult made from paint sticks, a wooden spool, a Dixie cup, and duct tape.
- **Activity #3 - Rubber Band Car**, better suited to the upper elementary grades (5-6), asks students to build a car that can travel at least 4 feet. Students have the opportunity to build, test and evaluate their cars, and then re-build and test again, the car is made from 2 compact disks, cardboard, paper clip, rubber bands, straws, a wooden skewer, putty and tape.

Our objectives in developing and delivering these kits are to:

- 1) Provide a set of activities with direct tie to emerging National Standards for Science, Technology and Engineering, and also a means to evaluate the learning that results from the activities
- 2) provide a self-contained kit with tools, rating forms and supplies that can be left with the teacher for continued use to address the lack of funding, material resources and training available to teachers in STEM, and
- 3) increase student contact with engineering professionals and subsequently awareness of the possibilities of entering a STEM career.

Your tax-deductible financial support or donation of materials (paint sticks, wooden spools, Dixie cups, duct tape, straws, compact disks, cardboard and construction paper) will help to ensure the success of the Foundation's Outreach activities and support the recruitment of the next generation of engineers



during their most formative educational years. While all contributions are accepted, there are also sponsorship opportunities available for the following items:

Quantity	Item	Serves	Cost
1	Hoop Glider Kit	100 students	\$150
1	Pop Fly Catapult Kit	100 students	\$150
1	Rubber Band Car Kit	50 students	\$150

All contributors will be recognized on the Nevada Society of Professional Engineers website and will receive recognition at our professional meetings. Companies that sponsor a STEM bucket kit will have their logo printed and displayed on the bucket. Please provide an electronic logo to Brook Demitropoulos, STEM Committee Chair at brook.demitropoulos@ch2m.com. This is a great way to get your company name out into the community.

Additional information regarding our STEM Outreach activities can be found at: <http://www.nspenv.org/stem.html>

Please use the contact information shown below if you would like to make a donation or sponsor one or more of the bucket kits:

For donations or bucket sponsorships, please make checks payable to Nevada PE Foundation (TIN 94-2978625) and mail to:

**Nevada PE Foundation
c/o Tom Miller
3130 S. Durango Drive, #404
Las Vegas, NV 89117
Telephone: 702-248-8000
Email: tmiller@collinsengr.com**

Please contact me via email or telephone, as shown below, if you have questions about the outreach activity, or if you would like to volunteer as part of the outreach effort.

Thank you. Your support is truly appreciated!

Sincerely,

Dr. David James, PE
Nevada PE Foundation Chairman
Telephone; 702-595-1209
Email: jamesdrs@gmail.com
Web: www.nspenv.org

The Nevada Professional Engineers (PE) Foundation is a 501c (3) Nevada non-profit organization