Creating an Innovative STEM Program through Entrepreneurship and Engineering

May 19, 2016

Hosted by:
National Girls Collaborative Project
Allen Distinguished Educators
Agenda

• National Girls Collaborative Project (NGCP)
• Allen Distinguished Educators (ADE)
• Alyson Nelson, Nikola Tesla STEM High School
• Jodie Woodruff, The Met School
• Questions
• Closing
NGCP Vision

The National Girls Collaborative Project (NGCP) brings together organizations that are committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).
NGCP Goals

1. **Maximize access** to shared resources within projects and organizations interested in engaging girls in STEM.

2. **Strengthen the capacity** of programs by sharing exemplary practice research and program models, outcomes and products.

3. **Use the leverage of a network** and the collaboration of individual girl-serving STEM programs to achieve gender equity in STEM.
National Network of Collaborative Teams
Allen Distinguished Educators
Jerry Nguyen
Allen Awardee Program Officer
Vulcan Inc.
Seattle, Washington
What is the Allen Distinguished Educators Program?

- The Allen Distinguished Educators program, founded by Paul Allen, recognizes teachers in computer science, engineering and entrepreneurship who focus on innovative curriculum and hands-on learning.

- The program provides teachers a chance to connect with like-minded educators and is an open-source way for awardees to share their work to inspire other educators.

- [www.allendistinguishededucators.org](http://www.allendistinguishededucators.org)
2016 Allen Distinguished Educators
Creating an Innovative STEM Program through Entrepreneurship and Engineering

Alyson Nelson and Jodie Woodruff

2016 Allen Distinguished Educators
Alyson Nelson

Nikola Tesla STEM High School
Redmond, Washington
Building an Innovative Engineering Curriculum

• Advanced Biomedical Engineering: Discovering Passion through Innovative Design

• What current research/topics gain student interest?
  • What are you passionate about?

• Relevance and global impact
  • How can your students connect with those less fortunate?

• Engineering process and PBL
  • Present problems
  • Create
  • Design
  • Fail
  • Try again
Competition and Self-promotion

- Competition-based mentorships
  - Requirement to enter one science competition during course
  - Students work with industry mentors on their research
  - Gain experience in design, research, writing scientific reports, and presentation skills

National NSTA Toshiba ExploraVision – Honorable Mention
“3D printed Glenohumeral Joint Prosthetic for Complete Shoulder Replacement”

1st place at NWABR BioExpo Competition
“3D Modeling Glioblastoma Multiforme for Surgical Resection”
Creating collaborative roles through internships and experts in the field.

BUSINESS PLANS: A step in ownership through STEM projects

• Internships

*Rose Investments*

*Inspiring students to blossom financially*

Mentor: Financial Consultant Ed Raff

• Speakers based on various interests
• Interviews
• Shadow Days
• Internship
• Set Up Meeting
• Real World Learning Project
• Exit interview
ADE Do-It-Yourself Guides

• Detailed projects designed by ADEs

• “How They Did It” stories of educators around the country adapting projects to their classroom environments

• Grants for educators to adapt projects for your classroom

• Sign-up for the ADE newsletter to find out when the next grant opportunity is open
Closing

- Archived Webinar Link
- Stay Connected!

www.ngcproject.org

https://www.allendistinguishededucators.org/Learn-More/Newsletter.aspx
Thank you!