

Professional Development Proposal

Title:

Engineering Design Challenge
Aerodynamics

This topic was chosen because:

1. The materials are readily available.
2. The project is adaptable to multiple age levels.
3. This project will demonstrate:
 - a. The engineering design process
 - b. Creativity
 - c. STEM doesn't have to be complicated.
 - d. Resources available
 - e. They can do it!
4. Partnering teachers will foster collaboration and sharing of ideas.
5. Creating a Ring Wing Glider will show how engaging hands-on projects are.

Proposed audience:

1. K-8 teachers will be invited to the PD. K-4 teachers teach all subjects and 5-8 teachers specialize and teach science, math, language arts, and social studies. Class sizes range from 15 to 26, depending on the grade. Middle school teachers teach all of the students in their specialty area, so although their homeroom is in the 15-26 student range, they will teach up to 75 students. Unified arts teachers teach K-8 students, so they teach 500 students.

PD Location: School library

When: TBD

Session time: 3 p.m. - 4 p.m. (after school)

Access to computers: Teachers will have Chromebooks and iPads available to them.

Outcome or expectations: It is my hope that teachers will leave the PD with their own ideas for integrating more STEM activities into their curriculum. A list of resources will be provided to the teachers in order to help them find STEM projects to integrate into their current curriculum.

Follow up: Set-up a shared Google Doc for teachers to share ideas for integration of STEM projects.

Analyze PD's Success: Google Form/Survey

Resources for Attendees:

[NASA-What is Aerodynamics](#) (Read)

[NASA-STEM Resources](#)

[NSTA Resources](#)

[Ring-Wing Glider](#)