Here is your challenge, using the materials at your seat, build an effective anemometer. You may test and improve your design as often as you like.

An anemometer is an instrument used by meteorologist to determine wind speed and/or air pressure, they are correlated, so both can be determined with this instrument.

Anemos – Greek for wind

1st description – Leon Battista Alberti, ~1450, Italian author, artist, architect, poet, priest, linguist, philosopher, cryptographer (the practice and study of hiding information), and Roman humanist
Shayla L. Bennett, SWE Outreach Committee Programs Lead

Bringing Outreach Into Your Classroom, Its Easier Than You Think!!!
Who am I?

B.S. Industrial and Systems Engineering
Environmental Engineer
Programs Lead
Former NAL SWE Outreach Chair
Founded in 1950, the Society of Women Engineers (SWE) is the driving force that establishes engineering as a highly desirable career aspiration for women.

SWE empowers women to succeed and advance in those aspirations and receive the recognition and credit for their life-changing contributions and achievements as engineers and leaders.

Today 20,000+ members are in 300 collegiate sections and 100 professional sections.
Vision – a vivid picture we create that takes us past what is currently available into a world that we design with our hopes, dreams, and personal passion

SWE Outreach Vision

Provide SWE members with the resources to create and deliver high quality and sustainable STEM outreach programs which educate and empower future generations to pursue engineering as a viable and achievable career choice.
Outreach Goals

• Facilitate a change in attitude about careers in engineering by introducing participants to the creative, innovative, and forward thinking sides of engineering.

• Engage participants in hands-on activities that build self-confidence and critical thinking skills around engineering principals.

• Foster mentoring relationships between participants and role models to encourage an expanded sense of community and a deeper understanding of what engineers do.

• Connect priorities about what participants want in their future work and life to the work and life of an engineer by sharing personal stories and celebrating the accomplishment of women engineers.
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Huntsville, AL
Our Aspiration

Engineering is innovation... it's invention... it's one of the most exciting and essential fields there is. In order to help engineering thrive and remain diverse, we need to share the excitement with girls in grades K-12. Education and awareness must start now, well before college. The future is in our hands. Help us place it in theirs.

Our website: www.swe.org/aspire
Outreach events bring girls in middle and high school together with practicing engineers. Girls who attend these events will participate in events that will challenge them to be creative, teach them to work with others as a team, and introduce them to the world of engineering.

Do you know of an outreach event that should be listed on this calendar? If so, **SUBMIT YOUR OUTREACH EVENT**.

### August 2009

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/21/2009</td>
<td>11am</td>
<td>SWE and Design Squad Host Pop-Fly at LabFest!</td>
<td>Millennium Park 55 North Michigan</td>
</tr>
</tbody>
</table>
Our website: www.swe.org
Wow! That’s Engineering!
- One day, 200+ girls, 3 annually
- TEEMS – Together Exploring Engineering, Math, and Science
  - Girls Inc. collaboration, multi-visit
- Invent it. Build it.
  - One day, in conjunction with national conference, Girl Scouts and WGBH collaboration, 250 in 2010, 400 in 2011
- Parent and Educator Program, PEP!
  - Held concurrent with any outreach program, provides key resources, tools, and information, for parents and educators – formal and informal
Wow! That’s Engineering! Success

Since 2006, 21 events, 3150-4200 girls

- Chicago, IL
- Austin, TX
- Orlando, FL
- Philadelphia, PA
- Raleigh, NC
- San Francisco, CA
- Atlanta, GA
- St. Paul, Minnesota
- Riverside, CA
- San Jose, CA
- Columbus, OH
- Boston, MA - 2009
- Huntsville, AL - 2009
- Los Angeles, CA - 2009
- Cleveland, OH - 2010
- San Diego, CA - 2010
- Pittsburg, PA - 2010
- Tempe, AZ - 4/2011
- Puerto Rico - 4/2011
Inaugural event, national conference, WE10

What we learned

- 27% better understood engineering, 88% total
- 21% increase in desire to pursue engineering, 56% total
- 78% made new friends because of randomly being placed in groups
Resources

- Funding: Program Development Grants
  - FY11 - $100,000
- SWE Aspire - [www.swe.org/aspire](http://www.swe.org/aspire)
- Agilent Kits - [www.swe.org/store](http://www.swe.org/store)
  - 21 kits, various themes, 4 kids/kit
- Design Squad - [www.pbskids.org/designsquad](http://www.pbskids.org/designsquad)
  - Free resources available online
- Techbridge - [www.techbridgegirls.org](http://www.techbridgegirls.org)
  - 3 Program Boxes - Make it Green, Design Time, & Power it Up, 10 kids/kit
- FIRST Robotics
- E-week - [www.eweek.org](http://www.eweek.org)
- SciGirls - [www.pbskids.org/scigirls](http://www.pbskids.org/scigirls)
- Engineer Your Life, [www.engineeryourlife.org](http://www.engineeryourlife.org)
7 Keys to Success

- Plan your work, and work your plan **EARLY**!
- Hands-on, interactive activities with a theme and relevant connections
- Randomly place girls in small groups of 3 to 5
- Let your volunteers try the activities before the event
- Speakers should be energetic and quick
- Advertise, advertise, advertise
- Think outside of the box, creativity is KING
Heavy Lifting
Questions, comments, thoughts???