

M.E.S.A.
Mathematical Engineering
Science Achievement



Mission:

- Empower and motivate New Mexico's culturally diverse students with science, technology, engineering, and math (STEM) enrichment.

Vision:

- Diverse, well educated, professionals who reach their full potential as leaders through Math, Engineering, Science, and Technology Achievement.

NM MESA Facts and Figures 2009 - 2010

- 4500+ students in grades 6-12
- 111 Middle and High Schools
- 40 School Districts
- 174 MESA Advisors (teachers at each MESA site)
- 52% Female; 48% Male students
- 74% Minority students
- 57% Receive free or reduced school meals
- 21% Families at or below Federal poverty level

MESA was developed in 1970 in California it is currently in 8 states (California, Oregon, Washington, Utah, Arizona, Colorado, New Mexico, and Maryland)

Texas and Pennsylvania will hopefully be joining with in the next year!

Competition

Every three years the competition theme changes, the past two years have been wind energy

MESA states all hold their own state competitions. Teams advance from regional's to state. And after winning state they qualify for MESA USA!





Off to Seattle!

To compete in MESA USA we needed to have several things completed:

- ❖ A Technical Paper (Due before we left)
- ❖ A Presentation
- ❖ An Academic Display and most importantly
- ❖ A Windmill !

Academic Display

A good academic display is appealing, informative, and within the correct dimensions. We decided to have a fictional engineer guide everyone through our display. We also had a scale drawing created on solidworks!

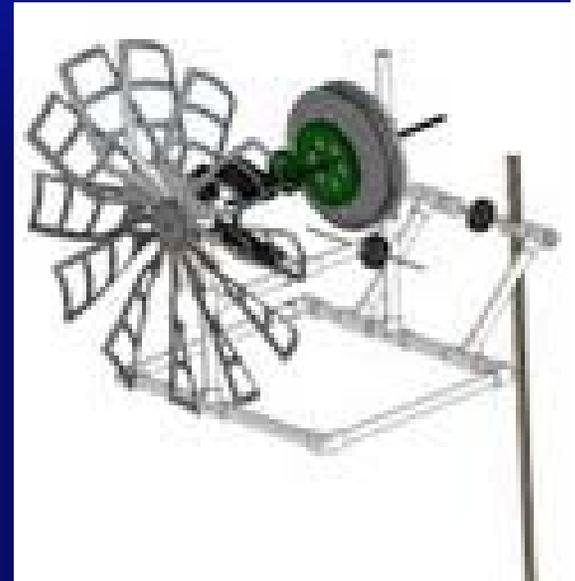


Presentation

Our presentation was 7 minutes long, afterwards we had a Q&A session. We had a creative and very funny skit for our presentation. We flew through the Q&A session with ease.

The Windmill!

After several nerve racking rebuilds we had completed our windmill! The windmill had to lift a mass, pull a vehicle (that we built), create electricity, and be efficient. Through tons of experimenting we were getting our best results.



Results

A few long stress filled nights later we placed third at nationals!

- 1st in lifting a mass (about 3,000 grams in a little over 20 seconds.)
- 2nd with our beautiful technical paper
- 2nd with our academic display
- And 3rd with our energetic presentation.



Questions?!?