Manteno Middle School CUSD#5

Investigating Wind Turbines

Jerry Rewerts, Math Engineering Teacher

During our lunch time some of our 8th grade future Engineers explored wind power. Student's unpacked and tested several strategies to the science of wind power. It started as a competition then stemmed into an investigation. Our future Engineers were self driven, eager to learn more and more.

Our Goal was to build, discover and learn about wind turbines.

Activities:

Unpacking and checking in proper materials.

Assembly of a wind Turbine.

Investigating the different wind blades which were self engineered.

Measuring Voltage with a multimeter and LED voltmeter

Engineering different strategies to increase voltage output.

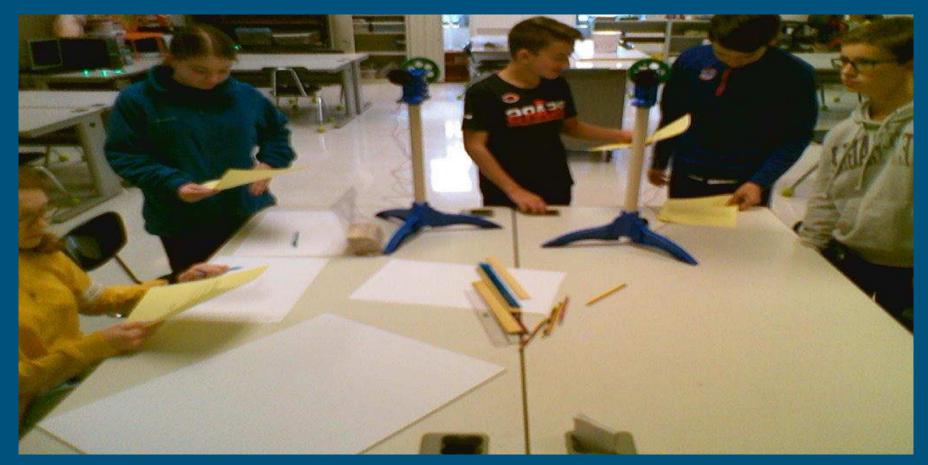
Teamwork



Let's see what we have here then we will take inventory.



How about a contest? Who will have the better windmill?



Hey we need blades. Let's design some blades.



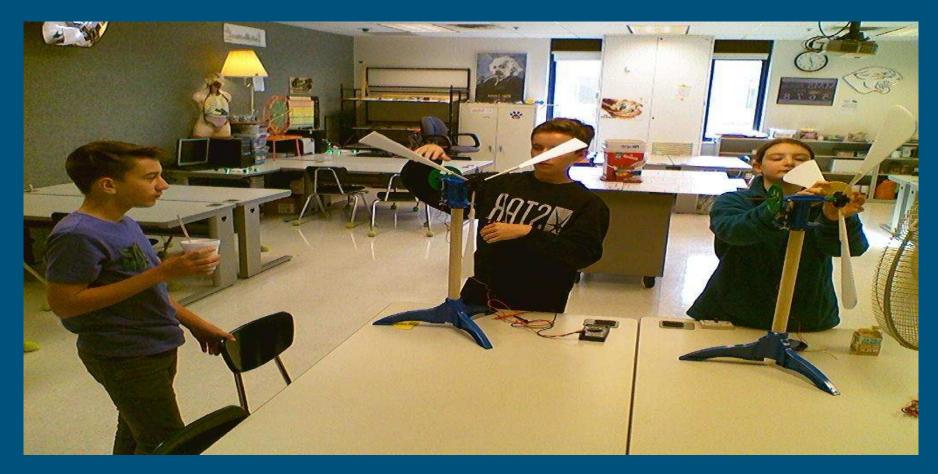
Let's get out the voltmeter.



This yellow protractor tool works well. I can get all the angles the same.



Let's try the digital voltmeter.



Our design doesn't catch the wind.



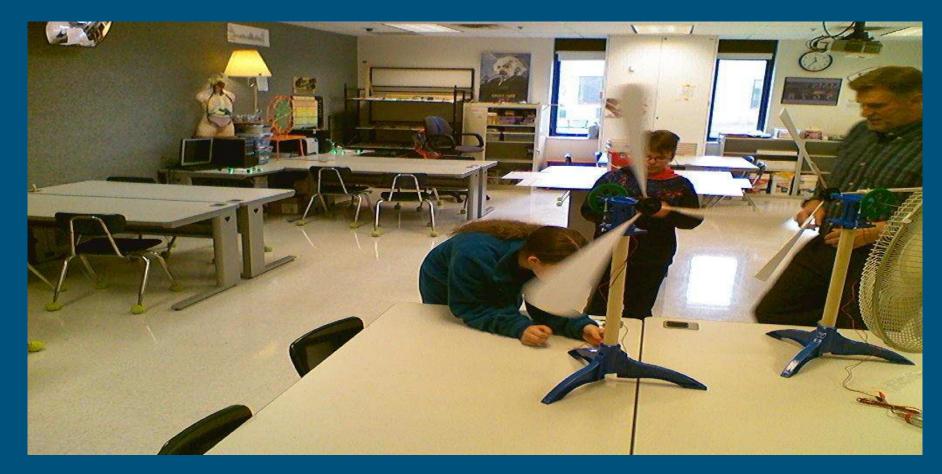
The faster it spins the more voltage you get.



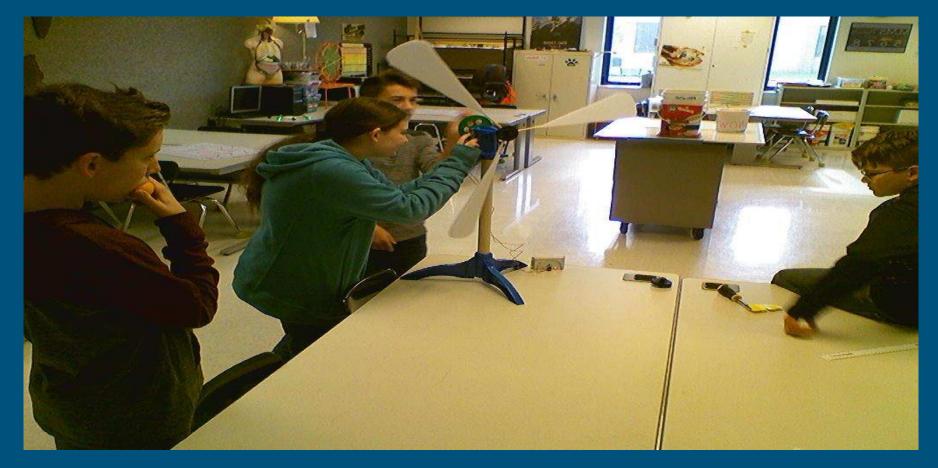
Check out the voltage! WE WIND, no WE WIN!!



This is cool, the wind turbine spins when I crank the hand generator.



Look at the voltage when we move the windmill closer!



What if we changed the gear size?



So many different learning possibilities, Thanks for watching