<table>
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<th>Name(s)</th>
<th>Project Number</th>
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<td>Kayla L. Valenzuela</td>
<td>26164</td>
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**Project Title**

**Determining How Many Blades will Affect Energy Producing Windmills**

**Objectives/Goals**
The reason I did this project is to determine how many blades will effect energy producing windmills. I want to see if any farmers will change their blades. Last year I went on a field trip to San Fransisco and I saw a lot of wind turbines. There were so many! Some were moving and some were not moving. I wanted to see if a 2-blade, a 4-blade, or a 6-blade wind turbine will work the best.

**Methods/Materials**
What I did, is build a wind turbine and connected it to a multi-meter. Then I put a fan in front of my turbine, then the air will blow against the propeller on my turbine and turn. After that, the multi-meter will show how much energy the turbine is producing. I used PVC pipe, a Multi-meter, gorilla glue, balsa wood, alligator clips, and a tinker toy connector.

**Results**
The 2-Blade worked the best. The 4-Blade was in the middle. Then the 6-Blade worked the worst. I thought that the 6-Blade would work the best because the more blades that you have, the more energy will be produced. But now I think the 6-Blade worked the worst because it had too much weight.

**Conclusions/Discussion**
I learned that windmills came from Persa which is now Iran, in the 1900's americans used them to pump water, and in the late 1980's over 100 companies were manufacturing windmills. I also learned that you can use windmills to do almost anything.

**Summary Statement**
My project is to see how many blades will affect energy producing windmills.

**Help Received**
My mom, dad, and teacher