



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Kathryn M. Jones</b>	<b>Project Number</b> <b>J1517</b>
<b>Project Title</b> <b>Faraday's Law: Creating Electric Current with a Magnet</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> Faraday's Law states that an electric current can be generated by passing a magnet through a coil of wire. This experiment attempted to verify Faraday's Law by using a strong heavy duty magnet, varying the number of coil windings, and passing the magnet through the coils at different speeds to see the amount of electric current created.</p> <p><b>Methods/Materials</b> Wind coils using 32 gauge wire (200 turns and 400 turns). Pass a strong magnet through each of the coils. Measure the amount of electricity generated by the magnet moving through the coils by using a galvanoscope. Repeat the procedure by moving the magnets through the coils at different speeds to see the difference in the current generated.</p> <p><b>Results</b> Coil with more windings produced more current and the faster the magnet was passed through the coils the greater the current generated.</p> <p><b>Conclusions/Discussion</b> By inserting or removing the magnet from the windings of coiled wire, electricity was produced as predicted by Faraday's Law.</p>	
<b>Summary Statement</b> Electricity is generated by passing a magnet through coils of wire as predicted by Faraday's Law.	
<b>Help Received</b> Dad supervised the construction and experimentation.	