# CALIFORNIA STATE SCIENCE FAIR
## 2013 PROJECT SUMMARY

**Name(s)**
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**Project Number**
**S0908**

**Project Title**
## Attraction/Repulsion of a Tesla Coil

**Abstract**

**Objectives/Goals**
The goal of are project was to see if the electromagnetic field put off by a tesla coil would be of positive charge and attract the balloons or be of negative charge and repeal the balloons.

**Methods/Materials**
We made a tesla coil using: nuts,bolts, wires, glass bottles, wooden boards, tubing and a neon sign transformer. With the tesla coil we placed it in an open area free of any metal objects and plugged the neon sign transformer in to an extension cord then we placed six balloons around the tesla coil than we plugged the extension cord into an outlet.

**Results**
Some of the balloons where repealed but not all of them where repealed show us that the electromagnetic field put off by a tesla coil was negative and pushed the balloons away. Also the coil field was able to jam any electronic singles around a 10 foot radius of it.

**Conclusions/Discussion**
We believe that this info can be helpful because it allows us to understand how a tesla coil can affect an area around it. Also an negatively charged field may be helpful in some cases like ionizing an surrounding area.

**Summary Statement**
Will a Tesla coil electromagnetic field be positive or negatively charged

**Help Received**
Father helped build the tesla coil;mother helped write the board.