

## CWSF 2011 - Toronto, Ontario



### Etienne Dreyer

#### AC Lightning: the Shocking Character of a Tesla Coil

**Challenge:** Energy

**Category:** Senior

**Region:** Fraser Valley

**City:** Langley, BC

**School:**

**Abstract:** Since its invention in 1891, the Tesla coil has helped us observe high voltage phenomena in an exciting and electrifying way. Using my home designed and built tesla coil, I aim to provide accurate and detailed theory on how this fascinating device functions. I will also explore the role it played in the past as well as the potential it holds to benefit our future.

#### Biography

Born in the -40C weather of Winnipeg, I have enjoyed an excellent out-of-the-ordinary upbringing. This is mainly a result of my extensive homeschooling education which gave me the freedom to pursue my interests. In addition, my single mom did her utmost to foster my desire of exploring creation (made evident by our television smothered in national geographic video cassettes). As a result, science is now one of my great passions, and I spend most of my spare time studying it via resources and independent experimentation. My specialized fields include chemistry, physics, and electronics. Besides this, I also love music in the classical, choral, and Christian genres. I myself play classical guitar, and sing in a university choir. Although I am now only fifteen, I plan to graduate in fall of 2011, and pursue my studies in science. I am hoping to get an extra boost from this science fair and all of its opportunities. My dream would be to enter a career where my love of science will best be utilized to further our knowledge of the universe.

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