

## CWSF 2007 - Truro, Nova Scotia



### Andrew Gerwin

#### Who Will Save the Electric Car?

**Division:** Health Sciences / Automotive

**Category:** Junior

**Region:** Waterloo-Wellington

**City:** Guelph, ON

**School:** King George P.S.

**Abstract:** Five electric car batteries were load-tested with four different resistors under three temperature conditions. Weight, volume, cost, capacity, power, charge times and low-temperature performances were evaluated. Lithium-ion batteries made by Altair and A123 outperformed the Lead-acid and Nickel Metal-Hydride batteries. Between the lithium-ion batteries, Altair's battery was less expensive, had greater specific capacity and reached full charge faster, but A123's battery had higher energy density.

#### Biography

My name is Andrew Gerwin, and although I'm only 13, I've already developed a large range of interests and plans for the future. I am the first born child in a family of five kids. Both my parents are teachers. I am currently in grade 8 French immersion at King George P.S. in Guelph, Ontario. My extra curricular interests include playing trumpet, and singing with the Guelph Youth Singers. Recently, I went on a choir exchange trip to Vancouver. For sports, I prefer swimming, biking, and skating. Reading, especially science books, is also one of my pastimes. My favorite subjects in school are science, geography, and music. I enjoy learning to spell challenging words, and I recently finished third in the Guelph Regional Spelling Bee. For a career, I will probably choose Environmental Engineering, since I am very concerned with pollution and global warming. When I won a gold medal and an award of merit at the W.W.S.E.F, I was thrilled to be participating in the Canada-Wide Science Fair. My project on electric car batteries has been the most educational project I've ever done. I look forward to meeting other students who share my strong interest in science.