

Electric Car Challenge drives dreams

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Building a lithium-ion battery powered car requires plenty of skills in math and science —which are exactly what sixth, seventh, and eighth graders demonstrated at the November 19 New Mexico Middle School Electric Car Challenge (formerly the New Mexico Hydrogen Fuels Challenge) at Van Buren Middle School in Albuquerque. The all-day competition consisted of a battery powered model car race, a design competition, and the option to participate in an oral presentation.

The six-person teams were provided all necessary materials, including the chassis, wheels, and gears, but it was their creative thinking, scientific know-how, experimentation, and teamwork that set them apart.

Students from one Northern New Mexico school, Carlos Vigil, faced their first challenge of the day when they showed up to their Española school on the morning of the event only to find their electric car materials locked inside the building. They drove to Albuquerque and had to design and build their cars from scratch. But perhaps working under pressure was beneficial—the team placed third in the race category.

"The car challenge proved to be, well, just that, challenging for young minds," says Victor Coronado, a sixth-grade teacher at another Northern New Mexico school, Abiquiu Elementary. "I watched students go from excited, to frustrated, to ready to give up with moans of, 'This is harder than I thought.' This event allowed me to see true learning in real time as my students excitedly worked their problems."

A student from an Albuquerque school participates in the Electric Car Challenge.

Overall competition winners:

- First place: Berrendo Middle School Team 1, \$ 750
- Second place: Carlsbad Alta Vista Team 1, \$500
- Third place: Carlsbad Intermediate School Team 3, \$250
- Perseverance award: Native American Community Academy Team 1
- Spirit awards: Vista Middle School Team 2 and Portales Middle School Team 3
- Sportsmanship award: Carlos Vigil Middle School Team 1
- Second Chance Race Competition award: Abiquiu Elementary Team 1

Oral presentation winners:

First Place: Vista Middle School Team 1

Second Place: Turquoise Trail Team 1

Third Place: Carlsbad Intermediate School Team 1

Design presentation winners:

• First place: Carlsbad Intermediate School Team 3

Second place: Carlsbad Intermediate Team 2

• Third place: Red Mountain Team 1

Race winners:

• First place: Berrendo Middle School Team 1

Second place: Carlsbad Alta Vista Team 2

Third place: Carlos Vigil Middle School Team 2

The event was sponsored by Los Alamos National Laboratory, Los Alamos National Security LLC, Sandia National Laboratories, Intel, PNM Resources, and Albuquerque Public Schools.

Students get advice from a teacher.

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