USU Physics Day at Lagoon Staple of High-Flying Science Fun

While planning transportation for 14 of his students to participate in Utah State University Physics Day at Lagoon, Idaho teacher Matt Taylor was dismayed to learn a school bus for the trip would cost more than $800.

Without a travel budget and unwilling to pass the cost along to his students, Taylor borrowed a Chevy Suburban and a Dodge Durango from relatives. With wife, Emily, the AP physics teacher from Pocatello High School loaded seven students in each vehicle and made the 300-mile round trip with unassuming dispatch.

“Our students prepare for and look forward to this event all year,” Taylor says. “Where there’s a will, there’s a way.”

The Idahoans joined nearly 9,000 aspiring scientists from 120 schools in Idaho, Utah, Wyoming and Nevada to converge on northern Utah’s premier amusement park May 15th for a day of science learning, competition and fun.

“We prepare for this event all year as well,” says J.R. Dennison, professor in USU’s Department of Physics and a founder of the annual event, now in its 26th year, that’s among the Intermountain West’s longest-running and largest STEM outreach events.

Soggy weather temporarily delayed the 2015 event’s Colossus’s Colossal G-Forces Contest, a perennial favorite on the park’s Fire Dragon roller coaster in which students measure G-forces using wrist accelerometers.
they’ve built themselves as they zoom through 65-foot diameter loops. But event exhibitor Ardusat stepped in with an equally enjoyable alternative, as its employees outfitted students with chest harness accelerometers for Lagoon’s long-drop Rocket ride and displayed the recorded G-forces on a large-screen graph.

The Salt Lake City-based science education company also dazzled teens with displays of their innovative CubeSat (cube satellite) kits and learning resources.

“We want to let kids know that education is more than what happens in the classroom,” says Maureen Silva, Ardusat business development manager. “Our tools can help students explore their curiosity.”

Among the day’s most popular events was the Sky Drop Contest, in which students bombed a giant bull’s eye from a 35-foot drop with raw eggs in self-designed protective containers from the Sky Ride. The budding engineers packed the delicate payloads in everything from bubble-wrap and duct tape to peanut butter and cake frosting.

Along with the day’s amusements, nearly 100 aspiring Aggies in three-person teams vied in the Physics Bowl competition for more than $120,000 in scholarship awards. Six students in the top two teams received full, four-year scholarships to USU, along with two semesters of free textbooks.

An army of USU students, alumni, faculty and staff volunteers, along with corporate and community sponsors, worked throughout the year to produce the day’s magic. Among these was Utah State physics and chemistry alum Amberly Evans Jensen ’12, ‘14MS, who coordinated this year’s event. With an eye on the future, Jensen developed workbook exercises for Lagoon’s not-yet-open but much-touted new ride, “The Cannibal.”

“The Cannibal will reach 70 mph and pull 4.2 Gs as it loops and dives, so we want to take advantage of this ride to teach students about physics principles,” Jensen says. “We want teens to be thinking about friction, force, gravity and energy, while they’re screaming at the top of their lungs.”

Sponsors for 2015 USU Physics Day included more than 30 public and private institutions.
Related links:

- “Thousands of Student Scientists Flex Knowledge at Lagoon,” Standard-Examiner
- “USU’s Physics Day Brings Fun, Learning Together for Students,” KSL-TV News
- “Students Find Amusement in Science at USU’s Physics Day,” Deseret News
- “USU Physics Day at Lagoon Marks 25 Years of ‘Physics Phun,’” Utah State Today
- USU Department of Physics
- USU College of Science

Contact: J.R. Dennison, 435-797-2936, jr.dennison@usu.edu

Writer: Mary-Ann Muffoletto, 435-797-3517, maryann.muffoletto@usu.edu