Steven Revington, OCT, lays the groundwork for his Authentic Learning model at the elementary level by cracking it wide open with real-world applications.

BY TRISH SNYDER

Though to say who’s more excited on a muggy June morning at Emily Carr Public School in London, Ont. — Steven Revington, OCT, or his Grade 4 students. They’re on the verge of conducting a live experiment before hundreds of spectators — including students, family, staff, politicians and even a camera crew.

Working in pairs, they’ve applied lessons on gravity and drag to the design of a package or “capsule” that they’ve constructed to protect a raw egg during a four-storey fall. A London Hydro employee was invited to test the class’s pods by dropping each one from a cherry picker hovering above the unforgiving schoolyard pavement. Dressed in white lab coats, the young scientists head outside to wait, well, on eggshells, as the hydro worker propels skyward with their colourful projects.

The materials are decidedly low-tech but they’ve got all the features you’d want in an aircraft. In fact, Revington initiated his first drop in 1985 after discovering that NASA had perfected its Mars landing capsule design in the 1950s by securing eggs in prototype spacecraft, then tossing them off helicopters.

Many of the handmade pods are loaded with cotton balls, foam peanuts or bulging, air-filled plastic packs. One duo braced their box for impact by attaching cardboard strips folded like an accordion. Another pair topped a baby wipes container with cardboard rotors shaped like maple keys. Just as the first capsule is about to be tested, a fellow teacher enlisted to emcee the event pauses the blasting music and begins the countdown: “Five, four, three, two, one!”
Speculators gasp as the first box drops and rolls. Revington eyes his stopwatch, announces the flight time — which students record on clipboards — and then carefully peers inside the package. The creators host a "Yea" cardboard sign to indicate their egg's safe arrival, and the yard erupts with applause. The next student carefully peers inside the package. The egg drop. It's one thing to tell them for life in the most authentic, meaningful, real-life learning." He says. "You can't have a social moment when you drop things in front of your peers. It's a window of opportunity she'd never been offered before — she used it once.

As soon as Michelle Schaap's son, Wesley, had a taste of Mr. Revington's next-level activities, she no longer had to fight him to get him to school. "When he was previously in Revington's class," Together, with his classmates, Wesley helped to remake a music video by the band Coldplay, "which gave my kids a drive to learn at a different pace," says Schaup. "Mr. Revington showed my children how much they can accomplish. He has a real gift."

The approach has earned him awards from TV Ontario and Western University. In 2015, he won a Prime Minister's Award for Teaching Excellence and was one of three Canadians (selected from 5,000 nominations) to become one of the Top 50 finalists for the Global Teacher Prize, education's answer to the Nobel Prize.

"I have never met a teacher who has been as intentional, effective or committed to meeting the learning and social-emotional needs of his students," says Colin King, psychologist and co-ordinator of Psychological Services for the Thames Valley board. "Steve's Authentic Learning model has engaged even the most reluctant students — as well as those with significant learning difficulties — in a manner that connects them to meaningful, real-life learning."

For Revington, authentic learning is richest when students are called upon to solve a genuine problem with a tangible, useful product. "The idea is to prepare them for life in the most authentic, simulated way we can," he says. Enter the egg drop. It's one thing to tell students what they need to do. It's another when children learn about responsibility by "parenting" a raw egg for a week, then figure out how to protect it by playing with air resistance, impact and recoil — the same kind of thinking that goes into designing stronger packaging or safer hockey equipment.

"The class is still buzzing post-drop, when it's time to return inside to review the data. The students compare their times and draw flight patterns in the air with their fingers — straight down or a little curvy. It doesn't take long for someone to answer when Revington asks if anyone sees a connection between flight times and patterns. "The capsules that went straight down went faster. Those with more curves have more drag and went slower," says one girl. "That's right!" the teacher says, and they're off again chatting about the best crashes. Revington knows better than to fight it when children are so excited about what they're learning that they can't stop talking about it. "Let's get your snacks a little early today," he says. "You can have a social moment to talk about today's event."

Since this teacher is also a parent who knows little ones love pretending — from pulling on firefighter costumes to acting like bakers — he immerses them in the learning process by encouraging role-playing. First, the students get into character by dressing appropriately for the task. "I found that their focus, motivation and productivity increase dramatically when they wear lab coats and clip-on project clearance badges," Revington says. Second, everyone slips into a different role during group work. If teams are building a tower, one child is the designated astronomer, another plays accountant and another steps in as safety regulator. "They get to see that there's a variety of skills needed to do the jobs," he says. Revington believes learning deepens when you involve the greater community.

After developing a passion for Australia when he taught down under for a year, Steven Revington, OCT, nurtures the quality of the final products and, eventually by observing their strengths and weaknesses, as well as asking about their likes and dislikes. A boy who loves football but not reading? "I look for that one child who needs that push. Sometimes it's just a gentle nudge..." He made a deal with one girl who had an anxiety disorder — the moment she felt panic rising, she'd make a little "T" with her hands to signal she needed to retreat to the hall and collect herself, to avoid melting down in front of her peers. It was a window of opportunity she'd never been offered before — she used it once.

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