



A District's Vision in Action: An Innovative, Inspiring, and Unified Learning Community

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All-natural toys, eco-friendly handwarmers, and uniquely designed cell phone stands were just some of the innovative products inspiring thousands of students and community members in a huge exhibition hall filled with booths. The sounds of passionate students expounding the benefits of their designs amidst rich conversations as they shared their ideas and learning with community mentors created an exciting and unique showcase of learning! More than I could have ever imagined when we began on this venture.

In May 2019, the Langley School District showcased Grades 4 to 12 students' *innovations, designs, entrepreneurship, and altruism* at its second annual IDEA Summit hosted at the Langley Event Center. Kindergarten to Grade 12 students from Langley schools, as well as community members, had the opportunity to visit the IDEA Summit to engage in activities, learn from the students showcasing their prototypes and ideas, purchase innovative products, and to be truly inspired.

To prepare for an IDEA Summit, students take leaps of faith and attack problems from different angles. With open eyes and minds, they break out of the box and turn brainstorming into fantastic ideas. Programs that have fostered such innovation and ingenuity include Power Play, Youth Philanthropy Initiative, Caring in Action, as well as less formal initiatives promoting innovation, design, entrepreneurship, and "socialpreneurship."

An exciting addition to this year's IDEA Summit was the IDEA X Challenge. Secondary students were engaged in teams where they tackled an authentic real-world challenge – the global problem of single-use plastic. The proliferation of single-use plastic and its devastating impact on the environment, eco-systems, animal conservation, and general health and welfare of our planet has become such a daunting issue that most people turn away from the problem in despair. This apathy became the catalyst for choosing this wicked world problem for the students to tackle.

The IDEA X Challenge was fashioned after the well-known online X prize, which fosters "high-profile competitions to motivate individuals, companies, and organizations across all disciplines

to develop innovative ideas and technologies that help solve the grand challenges that restrict humanity's progress.”

This is not your typical science project. The launch in January 2019 kicked off with 15 teams delving deep into what it takes to collaborate effectively and to work through the design thinking process (Applied Design, Skills, and Technologies curriculum) towards a solution to this global problem. Teams returned to their schools to research, develop, and test prototypes, creating multiple iterations based on feedback right up until their final presentation to the adjudicators at the IDEA Summit. The students documented their progress and process on their team’s Instagram account, which was linked to our district’s IDEA X Instagram account, demonstrating their thinking and interactions with experts during the four-month journey.

In April, teams participated in Eliminations; this is where teams submitted detailed digital PR Kits for assessment, and presented and fielded questions on their initial work to the organizing committee. Teams who passed Eliminations worked with the organizing committee to fine-tune their final pitch, ensuring they were set up for success at the IDEA Summit.

During the finale at the IDEA Summit, the IDEA X teams pitched their plausible ideas, feasible solutions, forceful rationales, in-depth research, and well-thought out marketing strategies to adjudicators from well-known environmental organizations. Our esteemed adjudicators were Catriona Power, Director of Foresight Cleantech Accelerator Centre; Adrian Midwood, Executive Director of Plastic Oceans Foundation Canada; and Alex Johansen, Outdoor Learning and Sustainability Program Specialist at Science World. These adjudicators studied the PR Kits, listened closely to presentations and asked tough questions as teams were vying for scholarships worth up to \$20,000 per team.

The teams did not disappoint! Spectators witnessed courage and brilliance emerge as our students tackled this significant global problem. Evidence of dedicated time following the design thinking process and multiple iterations resulted in the winning solutions that don’t just recycle single use plastics, these solutions stop the use of single use plastics. The journey and the process were fascinating as the teams reached out to environmental experts and advocates world-wide to seek advice and guidance as well as to delve into what has already, or is already, being done to solve the problem.

A visual green rating system for local businesses, a car seat recycling policy change, edible water bubbles for hydrating, and waterproof sleeping bags made out of plastic bags donated to the homeless were but a few of the brilliant ideas showcased in the IDEA X Challenge.

The first place prize of \$20,000 went to the Eco Tech team who developed Edible Spoons made up of natural ingredients, including flour, water, salt, sugar and spices for flavour. The utensils come with a book that educates the public on the problem of single-use plastics, along with the recipe and instructions written in 10 languages, and a digital space for people to share their experiences and iterations of making these spoons.

The second place prize of \$10,000 was awarded to the STOP team who developed interactive lesson plans for school-age children, educating young students about the problem of single-use plastics and the negative impact plastics have on our oceans. As part of their lessons, the team used a bin filled with sand, microplastics, and a sifter to demonstrate pollution on our coasts.

The IDEA Summit and the IDEA X Challenge are supporting the Langley School District as we move forward in the implementation of the true philosophy of the redesigned B.C. curriculum. Entrepreneurship, “socialpreneurship,” and the design thinking skills associated with creativity and innovation; developing and marketing products and ideas; and enhancing social and business awareness, are now part of the redesigned ADST curriculum and the career curriculum.

Additionally, we are seeing the intentional development of the core competencies through these types of authentic and meaningful experiences focussing on the “do and understand” from the know-do-understand learning model. While we are following our own design thinking process in implementing the new curriculum in our classrooms, let’s not forget to celebrate the learning along the way with authentic audiences – using the community to move our students’ learning even deeper. It is truly exciting to see so many B.C. educators embracing the development of these important skills for students to be successful in the rapidly changing world of their future.