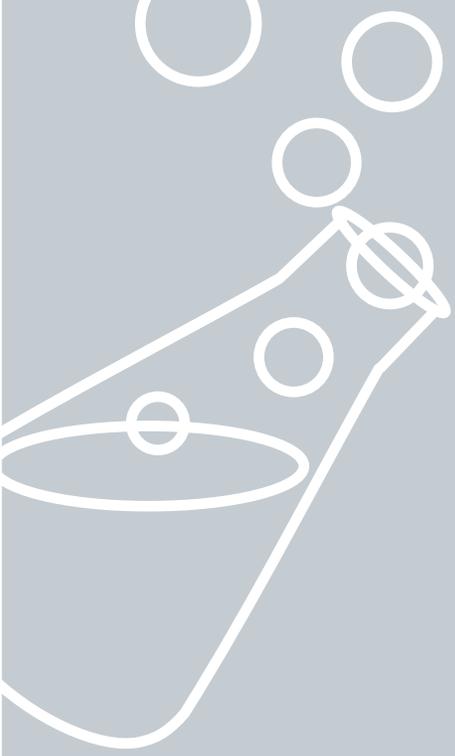


2007 Final Report

Science 
Venture  SINCE 1991

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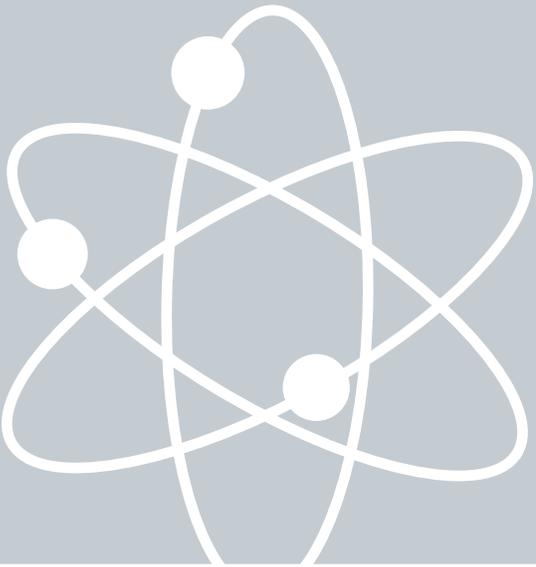
director's message



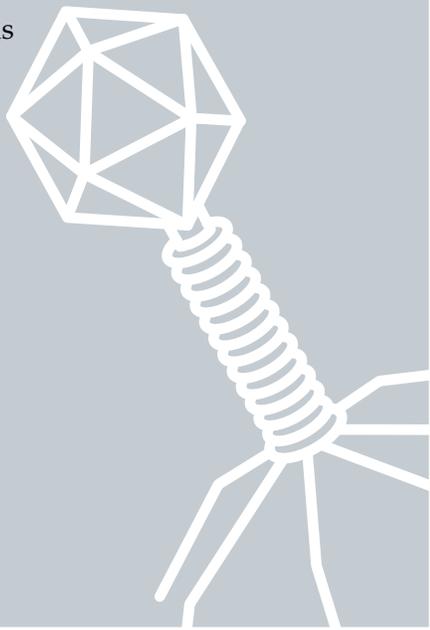
If we had to choose an overall theme for this year, it would have to be "synergy." Beyond the creativity and innovation that took place when our staff of young adults came together to develop programs, Science Venture was also fortunate to partner with a number of organizations in order to further our mandate of bringing the wonder of science, engineering and technology to young people. Working with outreach and research programs on campus, aboriginal communities, funders, and local service clubs allowed us both to enhance our curriculum and to reach even more youth than ever before.

We are very proud of these accomplishments, and look forward to strengthening our partnerships in the future in order to build on these successes.

As always, we are indebted to those who give so generously of their time and resources to assist us in what we do.



Roberta MacDonald
Director, Science Venture



science venture is...



our goals...

- to develop an interest in science, engineering and technology among youth, particularly those from under-represented groups
 - to provide positive role models and dispel stereotypes
- to inform about science, engineering and technology as career choices
- to ensure that cultural and financial background do not prevent participation in our programs
- to introduce youth to the university environment in a non-threatening manner

Science Venture's mandate is to stimulate an awareness of and enthusiasm for science, engineering, and technology among youth from ages 5 to 18, particularly those from under-represented groups. This is accomplished through a dynamic program of hands-on, fun, and thought-provoking curriculum that we update each year. This curriculum is delivered through community outreach events, science clubs and classroom workshops, along with summer camps that are offered both at the University of Victoria campus and in satellite communities throughout Vancouver Island. In addition to hands-on activities, we also work with mentors to bring young people in contact with real scientists and engineers doing ground-breaking research. The overarching goal of all of the programs is to make science and technology fun while still allowing for creativity and critical thinking.

Science Venture is administered by a full-time Director. Its programs are developed and delivered by students from the faculties of Science, Engineering/Computer Science and Education at the University of Victoria. These energetic young people bring a passion and enthusiasm for their area of study, making them excellent role models for our participants. This year, our instructors reached 9321 youth with Science Venture programs.

... synergy ...



2007 marked Science Venture's 17th year of delivering excellent science, engineering and technology outreach programs to youth on Vancouver Island. Since its initial year, when 140 young people took part in camps, Science Venture has continued to build momentum, adding programs for more age groups, leadership programs for teenagers, classroom workshops, science clubs, and community outreach programs. This year once again saw significant growth in the quality of our programming and the numbers reached. A large part of this success is due to partnerships with like-minded organizations.

A central part of our mandate is to reach youth from under-represented groups. In an effort to more effectively reach aboriginal children, we traveled to Port Hardy in the spring, meeting with education coordinators in three communities, Quatsino, Kwakiutl and GwaSala-'Nakwakda'x. In June we returned to Port Hardy to deliver classroom workshops in the three aboriginal schools, then spent two weeks of the summer delivering camps. By working closely with those communities, we were able to reach close to 70 children in camps, and 150 in classroom workshops in that area alone.

This year was our second year of partnership with the NuuChaNulth Tribal Council delivering programs to the Tsaxana community in Gold River. We delivered workshops in the local elementary school, two science club meetings and a family science night in the community, and a week-long summer camp. The NuuChahNulth Tribal Council has just approached us to expand our outreach programs to two more communities in 2008.

The word is spreading! Having heard about our work from the Quatsino band in Port Hardy, the Tsawataineuk community in Kingcome Inlet contacted us in June. Two weeks later we sent two instructors to meet with village elders to introduce our program and deliver a camp in the community. This was a good first contact with the community, and we hope to pursue further partnerships with them in the future.

Bringing our focus closer to home, Science Venture has been meeting with the UVic Office of Indigenous Affairs, representatives of three local aboriginal communities, and three other UVic-based outreach programs to explore opportunities for outreach in the Greater Victoria area. Stay tuned for results in 2008!

Another under-represented group we strive to reach is youth from inner-city areas. Each year we offer bursaries for young people to attend our camps. For some youth, however, the barriers are more than financial. To address this, we partnered with the Boys and Girls Club of Victoria to bring our programs to a location where some of those youth would be more likely to attend. In this pilot project, we sent two instructors to the B&G Club's summer camp program in Metchosin, where they delivered hands-on science programs to 80 young people throughout one week. This model worked well, and we will be exploring ways to expand on this partnership in the future.

... exploration ...

Clubs Programs

This year we offered two science clubs that ran once each month throughout the school year: Explorers, a co-ed club for young people aged 8-12, and Girls Unlimited, an all-girls club for the same age group. We planned a wide range of events designed to introduce young people to many different strands of science and technology. We also brought our young people face-to-face with real scientists and engineers, spending time in labs on campus. Some of the activities included a hike in the woods with a spider expert, time in the bone lab with an osteologist, a squid dissection in the biology lab, a visit to the Pacific Geoscience Centre to learn about seismology, a day at a sheep farm to observe lambing, and even a recording session at a local studio to produce our own Christmas Album! What a fun and busy year! In all, **70 young people took part in our clubs programs.**

Responding to research that girls tend to lose interest in science once they reach middle school, we entered into a partnership this year with the Canadian Women's Foundation to enhance our girls club programming. In addition to funding, the partnership also provided shared resources through training sessions with experts in issues affecting girls today, and discussions about best practises with other organizations who deliver programs to girls. As part of the project, we are participating in research to determine the effectiveness of our programs in affecting girls' attitudes and confidence in science. Though still in the early stages, the initial results are positive.



Community Outreach

Each year Science Venture works with community groups to provide outreach. This year we reached over 400 people through community outreach with the following organizations:

- Greater Victoria Public Libraries
- Beavers and Scouts
- Sparks, Brownies, Guides
- South Island Gifted Kids Association
- Vancouver Island Regional Science Fair

Bursaries

A primary goal for Science Venture is to assure that our programs are accessible, regardless of academic skills, physical ability, or financial background. With the generous support of our funders, we were able this year to provide **bursaries to allow 40 youth**, who would not otherwise have been able to attend, to take part in our camps both at the University of Victoria Campus and in our satellite locations. We are very grateful that the support of our funders allowed us **increase the number of bursaries this year by 33%.**

... Wonder ...



From January to April, two instructors from the faculty of Engineering traveled around Greater Victoria and Vancouver Island, delivering **102 engineering awareness workshops** to students in middle and high school.

In May, our summer staff worked with researchers at the University of Victoria to develop 6 BC Science Curriculum-based workshops for students from Kindergarten to grade 8. The workshops highlighted the Venus Project, latest research on techtonics, gray whale studies, and the role of engineers and biologists in the management of BC's water resources.

In 5 weeks, our instructors delivered **213 science workshops** throughout Vancouver Island.

In total, **we reached 7503 youth** in our classroom workshops in 2007.

"The workshop was well-paced, the instructors worked as a team and kept the students engaged for the full two hours in a variety of age-appropriate activities. Great work!"

2007 Workshop Topics

Science 101 (K/1) - Friction, force and motion

Amazing Animals (2) - Life cycles, gray whales

Space Out! (3) - Solar sytem and our galaxy

Wondrous Water (4/5) - Healthy habitats and renewable resources

Extreme Exploration (6) - Exploration in extreme environments - space and undersea

Our Evolving Earth (7/8) - Plate techtonics



...innovation...



This year UVic campus hosted over 1100 excited and curious young people who explored, built, played, questioned, made friends, took risks, solved mysteries, and even participated in a space mission during our camps programs. Each had the opportunity to talk with real scientists and engineers, do hands-on science in real labs, learn that scientists can be "cool," and that university is a great place to be! We increased - and filled - programs for youth in the middle years, a common age where interest in science, particularly among girls, drops. We provided mentorship and leadership opportunities for students in high school through our Junior Counsellor program. In an effort to make our programs more accessible to youth in rural areas, we also took our camps programs to **6 different communities** outside of Victoria, reaching 190 young people in these areas. As with our workshops programs, we partnered with people on campus and in the community to provide expertise and meaningful content for the programs that we offered. In all, **1327 young people** around Vancouver Island **participated in our camps** programs.

Camps offered in 2007

Science & Engineering (1 - 9) - Each level incorporated age-appropriate games, experiments and building projects to explore a wide range of science and engineering topics.

Tech Camps (5 - 9) - These camps focused on computers, robotics, programming, and building.

Medieval (7 - 9) - Offered in partnership with the department of Medieval Studies, this camp explored life and the amazing engineering feats of medieval times.

Forensics (7 - 9) - Incorporating sophisticated lab techniques such as DNA fingerprinting, fibre analysis and more, our campers pieced together evidence from "crime scenes" to solve mysteries.

Residential Engineering Camps (10 - 12) - This program gave high school students the opportunity to stay on campus and spend a week exploring engineering.



... teamwork ...



Science Venture Staff 2007

Graeme Yamagishi, Mark Bazett (Team leader),
Steve Lonergan

Shane Reiersen (Tech Coordinator), Ryan Blackler,
Amy Meilleur, Judy Ranns (Clubs Coordinator),
Laura Turner

Leah Woods, Allison Young (Engineering Coordinator),
Liz Mason (Team Leader), Marek Kobylarz,
Felice Wong, Leanne Ross

Blair Ranns, H el ene Poulin (Camps Coordinator),
Justin Browne (Associate Director),
Roberta MacDonald (Director)

Not pictured: Monique Arseneau, Liz Thomson (Office)
Thomas Grime, Beau Murphy (Engineering instructors)
Heather Shivas, Leigh Pharis (Clubs Instructors)

Twenty-four energetic and enthusiastic staff worked together this year to develop and deliver curriculum, take registration, and keep things running smoothly at Science Venture. Our hard-working and passionate instructors served as excellent role models for our campers.

I liked my instructors because...

"They were really nice and did the best to make sure we had fun but also learned stuff."
- female, age 12

"They were fun and made the activities exciting." - female, age 13

"They are fun and they know a lot about the subjects they are teaching" - female, age 12

"They were awesome and cool." - female, age 9

"They were fun and energetic." - female, age 11

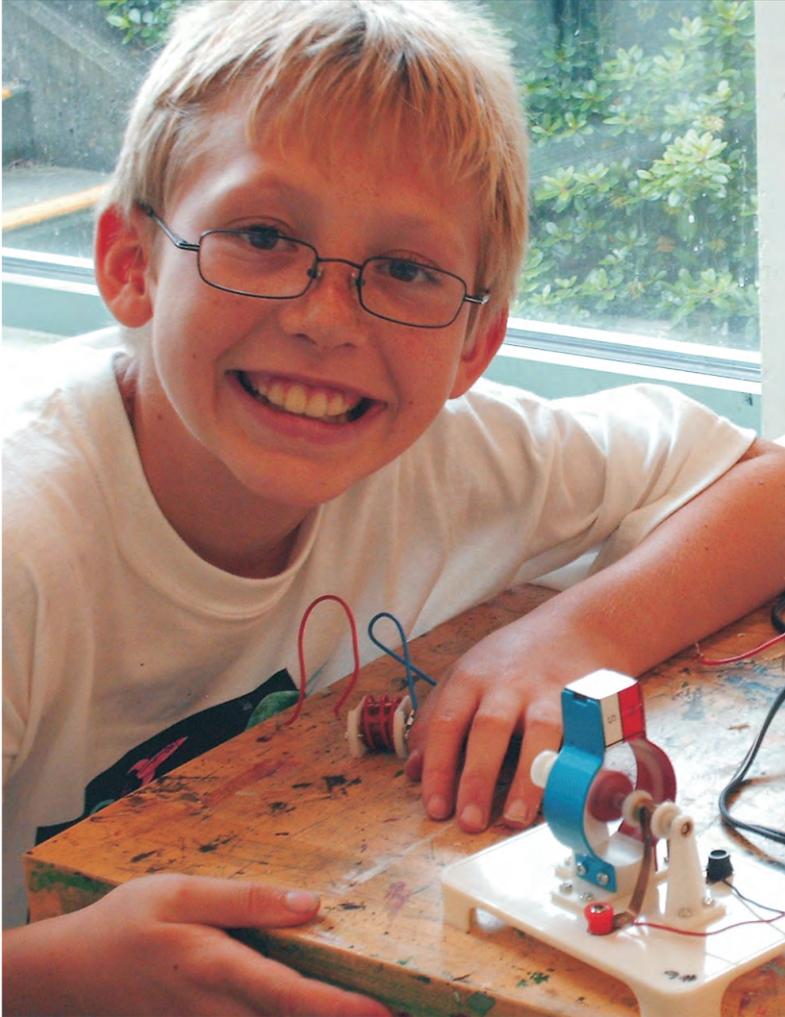
"They were awesome and really willing to help!" - male, age 12

"They are sooo cool!" - male, age 13

"They always had a positive attitude."
- female, age 11



...excellence...



What people are saying . . .

"I want to take a minute to congratulate you for the Forensics program. My son completed it last week and he absolutely loved it! I was equally impressed by the mock trial presentation on Friday afternoon. It was just excellent! I think you can brace for a big demand for enrollment in this particular program next year!" - *parent of camper*

"At Science Venture leaders and big kids do an awesome job of making activities for the kids" - *male camper, 13*

"The Science Venture club has been very informative and inspiring for [my daughter]. She is very interested in science and has really enjoyed the program. I read to her every night. We are currently reading (her choice) *Mysteries and Marvels of Science*... After the science demonstration at Brownies that you and your helper presented, [she] planned a sleep-over medicine camp for her friends... Thank you for the opportunity of this wonderful exposure to the scientific world."
- *parent of girls club participant*

"The workshop was so well organized... There was a great variety of materials to help the kids understand the concepts! You manage to present such a lot of information in such a short time." - *grade 2 teacher*

"My six year old daughter attended two weeks of camp this past summer and still raves about it. It has created an excitement for Science that was not previously there. Thank you Science Venture" - *parent of camper*

"Medieval camp was very fun, we got to build lots of stuff."
- *male camper, 12*

"The kids enjoyed themselves and were actively engaged in the activities. They left with a better understanding of engineering." - *grade 10, 11 teacher*

"All of the activities are fun, and challenging to an enjoyable degree. In this camp we used many very fun activities to work towards a single conclusion, which was very satisfying to me."
- *female, age 12*



...results!



2007 at a glance:

This year we expanded our **workshops** period to **6 months**, reaching **7503 youth** in **20** Vancouver Island communities.

In 2007, we increased the number of **satellite camps** to **6**, offered a total of **69 camp programs**, and engaged **1327 campers** in fun, hands-on science, engineering, and technology.

In our continuing effort to make our programs accessible to all youth, regardless of their financial or cultural background, we increased the number of **camp bursaries** to **40**.

Science Venture is a proud member of Actua, which provides training, resources and support to a national network of local organizations offering science and technology education programs. Actua members reach over 225,000 youth per year. Please visit Actua on the web at www.actua.ca.

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organization of
www.actua.ca

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