

## Uu-a-thluk Summer Program Puts Kids in Touch with Science



Campers visited the Ucluelet Aquarium to learn about local marine wildlife.

On a hot summer day in August, children gather around a basin of soapy water behind the Hupacasath House of Gathering. One by one they dip straws into the basin and carefully blow into the centre of a cube made from pipe cleaners. Presto: a colourful, six-sided bubble fills the frame, much to the delight of onlookers.

"They're making cubic bubbles," says Diane Kiss, one of the instructors of the day's activities. The bubbles are part of a weeklong science camp coordinated by the Nuuchahnulth Tribal Council fisheries department. One of six hosted in Nuuchahnulth territories this summer, the camp is funded by donors and organizations interested in cultivating science (particularly aquatic science) among the next generation of Nuuchahnulth.

Delivered through the University of Victoria's Science Venture program, the camps have been a mainstay of Uu-a-thluk summer programming for children and youth since 2006. This year Kiss, her colleague Adrienne Duimering, and Michelle Colyn of Uu-a-thluk are travelling from Port Alberni to Zeballos, with many stops in between.

The goal is to bring science to Nuuchahnulth communities and present subjects like chemistry, biology, and engineering in a non-threatening way. Integrating Nuuchahnulth science is also a priority, and elders contribute their knowledge during the camps through community partnerships.

So far the program has been very successful at attracting and holding children's attention, but making camps fun is just one piece of the puzzle.

### A Cultural Mismatch

Before hosting the first Nuuchahnulth science camp back in 2006, Uu-a-thluk team members surveyed parents, grandparents, and educators to find out why so few Nuuchahnulth people studied fisheries science at a high school or post-secondary level. The department's long term goal was (and still is) to see more Nuuchahnulth working in jobs related to aquatic resources. But to secure many of these jobs, job-seekers need scientific training or knowledge. At the time of the survey, those questioned talked about the lack of role models in science and the isolation of living in communities far removed from educational opportunities.

A study commissioned four years earlier by the UBC Fisheries Centre echoed these sentiments, noting that while many factors were at play, the consistent failure of Western education to incorporate aboriginal values and experiences at all levels of study was paramount.

A year later, the Canadian Council on Learning summed up the issue in their study, *The Cultural Divide in Science Education for Aboriginal Learners*: "A cultural mismatch between the values and philosophy of Western science (particularly as these are typically exemplified in the classroom) and the values and philosophy held by many Aboriginal people and communities, makes the issue of increasing Aboriginal participation in science and technology a particularly thorny one."

### Bringing Science Home

To address these challenges, Uu-a-thluk worked with Science Venture and communities to design camps that are both fun and relevant to Nuuchahnulth children. After eight years of programming, camps have included botany walks leading into cedar weaving; dip netting leading to discussions about invasive species; traditional food harvests and salmon dissections happening in conjunction with traditional teachings and a salmon barbecue.

Even activities like the cubic bubbles, which may lack a traditional component, take place outside in familiar surroundings, down the street from many children's homes. For Kiss and colleague Adrienne Duimering, integrating activities within the local community and culture is key to the camps' success.

"It has been an amazing experience to be welcomed by communities," Kiss says, adding that the children have embraced the program. "One day we learned about returning bones to the water after eating the salmon. We walked down the dock all together, and when some started to throw bones in, some of the girls shouted, 'Wait, you have to do it respectfully!' And that's just one example..."

Uu-a-thluk hopes this enthusiasm will lead to increased participation in marine resource jobs down the road. Already children are returning to the camps in successive years. And with increased exposure comes increased comfort.

Back at the House of Gathering, the learning continues as children test their cubic bubbles. One girl inserts the straw into its centre and blows another bubble for double effect. This one is spherical, but no less impressive. Children gather round, rapt at the results. "Look at that!" they point, eyes wide.

Her success is infectious: now everyone wants to try.



Teachings about traditional fishing equipment by Geraldine Tom led to hands-on cedar weaving.



Campers make cubic bubbles with Science Venture instructor Adrienne Duimering (pictured right in blue).

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