

GEERing Up!
UBC Engineering and Science
for Kids

BC Science Outreach Workshop
2008

Outline

- GEERing Up!'s Vision
- History
- Elementary School Workshops
- Summer Day Camps at UBC
- Outreach Initiatives
- Staff
- Evaluation of Success

Vision and Values

- To provide all of the children and youth of British Columbia with the opportunity to investigate engineering, science, and technology in a fun, educational and safe environment.
- Non-profit, student-run organization dedicated to promoting science, engineering and technology to the children and youth of British Columbia through fun, innovative and hands-on experiments and projects. We strive to reach all children regardless of gender, ethnicity, culture or socio-economic status, with special outreach for those groups traditionally underrepresented in the sciences. GEERing Up! provides valuable work experience to its employees, and enriches the University and community.

National Network

- Proud Member of Actua
- Support a growing network of members across Canada who offer hands-on summer camps, workshops and community outreach initiatives to over 225,000 youth in 375 communities annually
- Provide members funding, training, national conferences, project development materials and the opportunity to network with other Actua members.

History

- 1995 – Mechanical Engineering Student and Associate Dean of Students in the Faculty of Applied Science at UBC created “GEERing Up!”
- 2000 – Aboriginal Outreach and Girls Only! Camps
- 2005 – Junior Instructor High school Volunteer program
- 2006 – Technology Camp
- 2007- Girl Guide Workshops

Elementary School Workshops

- May – June
- In-school, 2 hour long workshops to elementary schools.
- Promoted interest in science and engineering at a young age (K-7)
- 2007: 4526 students reached
- Wide range of Workshop topics:
 - Food Frenzy (Food Science, Nutrition)
 - Operation Planet Earth (Sustainability, Environment)
 - Super Science Sleuths (Genetics, CSI-themed)
 - The Wonderful World of Water (Physical Chemistry)

Summer Day Camps at UBC

- 26 camps in 7 weeks
- 569 Campers aged 6-16.
- UBC Special Guest Mentors, Lab tours, hands-on projects.
- Camps based on age and interests:
 - Explorers (grades 2-3)
 - Imagineers (grades 4-5)
 - Inventors (grades 6-7)
 - Innovators (grades 8-10)
 - Tech (grades 8-10)
 - Girls Only! (grades 4-5, grades 6-7)

Outreach

Community Level

- APEGBC's E-Fest at the Vancouver Public Library.
 - Activity Booth
- APEGBC's Popsicle Stick Bridge Building
 - Volunteers
- Delta Landfill's Open House
 - Environmental-themed activities
- Harry Potter Book Launch
 - Science of Magic Show

Outreach

Aboriginal Outreach

- Comox Nations
 - Week-long program, reside within community
- CEDAR (Cross-cultural Education through Demonstration, Action and Recreation)
 - UBC affiliated program that offers free day camps for Aboriginal middle school students (ages 8 through 13)
 - Possible partnership with GEERing Up! for on-site day camp with a focus on Technology and Engineering

Outreach

Girls

- **Girls Only! Camps**
 - Guest Mentors
 - Provide comfortable learning environment which empowers girls to explore their potential
- **Girl Guides Workshops**
 - Lead activities related to their STEM (Science, Technology, Engineering and Math) modules

Outreach

Financial Difficulties

- **Bursaries**

- more than \$3000 in Bursaries
- Urban Systems (Sponsor) Strathcona Elementary School Scholarship

- **Inner-City Workshops**

- Free workshops to several Downtown Eastside and Inner-City elementary schools.

Staff

- 2 Co-Directors
- 9 Instructors
 - Diverse backgrounds: Mechanical, Chemical, Environmental, and Geological Electrical Engineering. Microbiology, Animal Biology, Food Science, Forestry, Cell Biology and Genetics.
- 1 Special Needs Integration Support Instructor
 - Integrate youth with exceptionalities into regular camp program.
 - Exceptionalities range from Asperger's, Autism, ESL to physical disabilities.

Evaluation of Success

- **Impact**

- National Level*

- Actua's On-line Camper Satisfaction Survey

- Teacher Satisfaction (Workshops)*

- Workshop Evaluation Forms

- Staff Satisfaction*

- On-line registration service built-in peer evaluation surveys.

- **Accountability**

To Sponsors:

Final Reports

To Funders/Actua:

Interim Reports for Funding Grants

To the University:

UBC Faculty of Applied Science Final Reports

GEERing Up!'s Sponsors

2007 Local Funders

Canada Summer Jobs

APEG BC

Weyerhaeuser

Urban Systems

Associated Engineering

Fluor Canada, Ltd.

Sandwell International

2007 BC Provincial Partners

BC Hydro Powersmart

Mitchell Odyssey Foundation

2007 Actua National Funders

General Electric

NSERC CRSNG

CIHR IRSC

Shell Canada

Honda Canada Foundation

Useful Contacts

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