TEACHERS ON THE FARM

BC teachers are lining up to milk cows and slop pigs as part of a summer education program where they can earn post-graduate credits. The summer institute is operated by Agriculture in the Classroom, a foundation established by the agricultural sector to provide support to the education community and enhance understanding of the importance of agriculture in the province.

Teachers participating in the summer institute begin the program in May with a distance education module. Through communication technology connections, teachers learn how large and complex the agricultural sector is and its general role in the economy and society.

The next step following the distance learning component is for the teachers to attend the UBC farm on Vancouver Island. Here, they combine their pre-session studies with some hands-on experience.

– BC Agriculture in the Classroom Foundation (inset photo)
– Jennifer Kroeptl

Teachers...lining up to milk cows.

Working directly with a university curriculum instructor, the teachers complete a teaching unit based on agriculture.

Course credits are earned on the basis of marks that the teachers receive from the curriculum instructor for their unit plan. As an added bonus to the education system, Agriculture in the Classroom makes the unit plans available to any teacher in BC at no cost.

...a better understanding of the close ties between the rural farm and the urban fridge.

Lindsay Babineau, Program Coordinator, reports that 50 teachers are already registered for the summer institute next year. Sponsors from the agriculture industry, including farmers, pay the full cost of the teachers' attendance. Currently, Babineau is consulting with teachers and Ministry officials to determine where agriculture-related content can be integrated across the curriculum. By refining its focus on curriculum development, Agriculture in the Classroom has found a way to reach the broadest number of teachers throughout the province and through them, their students. The net result is a better understanding of the close ties between the rural farm and the urban fridge.

GEERing up! Engineering for Kids

There was a time when summer camps for kids meant archery, campfire songs, and a light sprinkling of nature education for the sake of form. Camps today are more likely to have laptops than they are to have log rolling.

GEERing Up, a science education program operated by a group of undergraduate UBC engineering students, incorporates high school talks and workshops for teachers during May and June. This is followed by a summer camp program for students at UBC campus during July and August.

Camps today are more likely to have laptops than…log rolling.

GEERing Up's philosophy, conveyed through the enthusiasm of its student volunteers, is to teach students between Grades 1 and 7 that science is not only a relevant but an exciting part of their life. Specific goals include:

- generating positive impressions of engineering and science
- demonstrating the usefulness of scientific knowledge
- encouraging women to consider engineering and science careers
- introducing these young students informally to the university while providing role models in engineering

The student workshops are not of the "talking head" variety but actually engage the students in a learning experience. So popular are the two-hour workshops for Grades 1 to 7 that more than 100 of them were given this year by engineering students.

Three workshop programs were offered this year. The first, entitled *Optics: Light and Colour,* involves students in the investigation of the property of light and its behaviour as well as exploring applications of optics and its importance in everyday life. Students also produced a take-home creation designed to use light and colour. Other workshops, entitled *Electrochemistry: Conservation of Mass and Energy* and *Momentum: Simple Machines,* included similarly challenging activities. Taught by young volunteer engineering students, the workshops help spark early interest in scientific careers.

The next step is the summer school program, attracting 240 kids between ages six and 13 this year. Held at the UBC campus, the summer camp activities include several science and engineering disciplines, campus lab tours and an assortment of scientific games.

For those who might think that an educational camp might not be attractive to youngsters, the endorsement of one 10-year-old participant says it all. "I learned stuff even my folks didn't know."

– GEERing Up

Students simulate clean-up of an "oil spill".

Architecture is an environmental discipline. The shape and density of buildings determine the environmental quality of life for urban residents measured in what they see, what they hear, and what they breathe.

When the Architectural Institute of British Columbia, a professional association, decided that it wanted to help create "a more visually literate and informed society, capable of contributing to positive change in the built environment" they decided to start in the classroom.

EDUCATION FOR THE URBAN ENVIRONMENT

The process began in 1991 with the objective of making architecture an integral field of study throughout the BC school system. Initially, through having volunteer architects work with teachers, the institute soon recognized that most students lacked even a basic grounding in architectural concepts and communication. Living in an environment, whether urban or rural, does not necessarily give young people an understanding of it.

– Jim Taggart

Building a 'tetrahedron' on the steps of the Vancouver Art Gallery. Children are from Lonsdale Elem. in North Vancouver.

Two years ago, the institute produced an 80-page teachers' resource guide that matched key areas of the curriculum from Grades K-7, with suggestions for Grades 8-12. Since it was completed in early 1997, over 200 teachers throughout the province have participated in the institute's workshop program to learn the resource.

The guide contains 16 lessons divided among three sessions which are: the basic tools of architecture, the factors such as climate and geography which influence design, and a section entitled designing for people. The resource touches on as many subjects within the approved curriculum as possible and emphasizes hands-on activities.

As a result of broad teacher acceptance of the program, the institute received an invitation from the Ministry of Education to consult on curriculum development in fine arts. The workshop program for teachers, which is self-supporting, targeted 500 teachers in 1998.

Underlying the success of the program is a core of over 100 volunteer architects available for teacher workshops and classroom presentations.