

SIMON FRASER UNIVERSITY

EDUCATION 384-3 AND 385-3

**SPECIAL TOPIC:
SCIENCE IN THE MOST CURIOUS PLACES
(E7.00)**

Fall Semester, 1991

(September 3 – November 29)

Location: Science World, Vancouver

Instructor: P. Hopkinson

PREREQUISITE (or special instructions): None

DESCRIPTION

The 1991 Summer Institute at Science World is a cooperative project involving Science World B.C., the Faculty of Education, S.F.U., and the Department of Mathematics and Science Education, U.B.C. The Institute will involve thirty teachers in a week of seminars and workshops designed to promote activity-based science instruction in the lower Intermediate grades (4–7). The institute is designed for teachers who wish to pursue integrated, thematic teaching approaches with an emphasis on science activities.

Teachers who are interested in extending their study of science teaching may enrol in a follow-up COMET course which will involve them in a self-directed project in their classrooms together with monthly meetings with other participants from the Summer Institute, S.F.U. faculty, and Science World staff. Those participants who have access to computers and modems will also be able to communicate with each other and with the resource persons through the MTS telecommunications network.

OBJECTIVES

This course will:

- a. promote activity-based science instruction at the intermediate level, and develop teaching approaches that reflect science as a holistic, human endeavor, with broad concepts that are linked to other subjects;
- b. to explore Science World as an informal education centre and initiate Science World's role as a leader in activity-based science instruction;
- c. to investigate the blending of informal learning experiences with the public school curriculum;
- d. to promote the role of Science World in supporting teacher development in science instruction;
- e. to bring together practising scientists, science educators (including Science World teachers) and classroom teachers to address current issues in the teaching of science;
- f. to assist in the sustained support for lower intermediate teachers' professional development in science teaching.

REQUIRED READINGS

Case, R. (1990). Implementation through Informed Reflection. Burnaby, B.C.: Faculty of Education, S.F.U.

Science World, B.C. (1991). Science World in a Bag: Activity-Based Science for Elementary School Children, Their Teachers, and their Parents. Burnaby, B.C.: Faculty of Education, S.F.U.

STUDENT ASSIGNMENTS

Participants will be required to:

- a. develop, teach and assess a science theme or unit of instruction in their classroom during the term following the Summer Institute;
- b. meet as a group to share and discuss their projects with each other, with S.F.U. faculty and with Science World staff. As the participants' classroom projects develop, there will be an opportunity to share video-taped episodes from their schools and to discuss the successes and failures of various curriculum and pedagogical approaches;
- c. complete readings as required by the course instructor.