

DAY

EDUCATION 476-4

Designs for Learning: Natural Sciences

SUMMER SESSION 1995

C. Seatter

COURSE DESCRIPTION:

This course is designed for all; no special knowledge of science is required. Participants will learn a range of general approaches and will be introduced to a variety of other resources they can call upon in the future. We will cover both science content, in several key curriculum areas, and ways to bring that content to children. In this course we will attempt to answer such questions as: "What is science and why should we teach it anyway?", and "How do young children think about particular scientific concepts?" The course will balance theoretical considerations with practical classroom concerns. Activities will be from the physical and biological sciences.

OBJECTIVES:

- to examine the rationale for teaching science
- to examine the issues relating to science and science education
- to become familiar with the Primary and intermediate Program Foundation Document and Curriculum guide for elementary science from the Ministry of Education
- to examine, explore and practice strategies or methods of teaching elementary science
- to use a variety of resources found in the school and community
- to develop an enthusiastic and optimistic attitude towards teaching science to children!

RESOURCES:

No assigned textbook is required, but reference will be made to a wide variety of teacher guide materials, articles and students' books related to elementary science programs. There will be a charge of \$20 for photocopied materials distributed in class.

The Curriculum Laboratory has a wide variety of science education print materials: methodology and theory — LB 1585; curriculum Q161.

P.T.O.

COURSE REQUIREMENTS AND EVALUATION:

Attendance and Participation:

Students are expected to attend class regularly and be actively involved in each session. Attendance and participation are worth 10% of the total mark for this course.

Elementary Science Unit Plan:

Plan and develop a unit plan for a primary grade of your choice. The unit plan will include:

- rationale
- goals
- developing WEB
- 15 lesson overviews containing objectives, materials, activities and evaluative strategies
- assessment rationale for both formative and summative assessment
- teaching resources (community, media, etc.)
- lesson sequence outline including topics and sub-topics

This elementary science unit plan is worth 45% of the total mark for this course.

Presentation:

Present in class a lesson, including student activities, from your unit plan. This must be an elementary science lesson pulled from the unit plan. This peer teaching presentation is worth 30% of your total mark for this course.

"Science in a bag" kit:

Prepare a kit containing 3 "Science in a bag" activities to be used in your elementary classroom. Each activity includes materials and instructions for a small science experiment and is enclosed within a Ziploc bag. Introductory examples will be tested in class. This science kit is worth 15% of your total mark for this course.