

UNIV
NSAC
4297 ✓

NOVA SCOTIA AGRICULTURAL COLLEGE

MIKMAQ SCIENCE EDUCATION PROJECT

INTERIM REPORT

APRIL, 1993

Nan Armour
Armour and Associates
Halifax, N.S.

4297

PROGRESS REPORT

An initial planning meeting was held at the Principal's office, Nova Scotia Agricultural College, September 28, 1993. In attendance were education representatives from Millbrook, Indian Brook, and the Confederacy of Mainland Micmacs, along with officials from NSAC. Based on the discussions held, a Project Planning Committee was formed with the task of designing and implementing a program that would establish linkages between native communities and NSAC. The intent is to provide an enriched education program for native students as a means of encouraging them to continue to study science, and to consider careers in science and technology, an area in which natives are consistently underrepresented.

The Planning Committee formed and has met on a regular basis (every 3-4 weeks) at the Millbrook Band Office. Committee members are:

- Linda Markie, Education Officer, Millbrook
- Doria Maloney, Education Officer, Indian Brook
- Theresa Issac-Julien, Micmac Literacy Facilitator, NS Department of Education
- Tom Wilson, Native Teacher, Truro Junior High
- Bev MacAulay, Teacher, Shubenacadie Elementary School
- Nan Armour, Project Consultant, AC liaison

An early decision was made to concentrate the efforts of the first year on the development of a summer camp program for elementary Micmac students, to be held at the Agricultural College in August, 1993. The Committee defined project goals and objectives, a strategy for the development of the project, a draft outline of the camp program, and has identified resource people and their roles and responsibilities. The results of their decisions are included in the following pages.

Next Steps

The current tasks of the Committee are focused on fine-tuning the camp program, designing some pre-camp activities for the students, and dealing with the many accompanying logistical details. The final program should be ready for distribution in June. Details about camp evaluation, project evaluation and follow-up procedures will be prepared by AC's consultant, through dialogue with committee members.

ENCLOSURES

- Project Goals
- Proposed Program
- Program Development Schedule
- Draft Program Outline
- Roles and Responsibilities
 - camp coordinator
 - teacher/supervisors
 - high school students
- Student Application Form
- Information Brochure

MIKMAQ SCIENCE EDUCATION PROJECT

PROJECT GOALS

The purpose of the project is to develop a science education program specifically for Mikmaq students, with the following goals:

- to increase the self esteem and self confidence of Mikmaq students in general, and in particular to develop their confidence as students of science;
- to encourage Mikmaq students to develop and maintain an interest in science, to remain in school and to continue to study science, to choose to study science in post-secondary institutions, and thus to better prepare them for careers involving science ;
- to present science which is relevant to Mikmaq students, through which the students will gain the support of parents and the community;
- to provide an opportunity for the students to have a wide variety of hands-on experiences in science.

In order to achieve these goals, a long term commitment is needed, involving students, parents, schools, teachers, communities, and education institutions which can provide science instruction and experiences. Program components need to be developed for students at all grades - elementary, junior high and high school.

PROPOSED PROGRAM

As a first step, it was decided to focus on elementary students through the development of a five day camp program to be held during the summer of 1993 at the Nova Scotia Agricultural College.

Program Phases

- pre-camp activities with students, teachers and community
- summer camp
- post-camp follow-up

Participants

- 25 - 30 grade 5-6 Mikmaq students from Milbrook and Indian Brook communities
- aboriginal educators
- science education specialists

Focus/Theme

The Environment/The Land

Highlights

- hands-on activities
- lots of games
- meaning of 'science'
- making 'native' science legitimate
- time to share things the students have made
- more to come!
- lots of fun and humour
- outdoor activities
- native accomplishments

Process

1. Selected individuals will be invited to attend an initial planning meeting to be held on Thursday, November 12, 4:30 at Milbrook Band Office.
2. A committee will be formed to take responsibility for the design and planning of the summer camp program as well as the pre- and post-camp activities.
3. A process for proceeding and the roles and responsibilities of committee members will be determined along with a workable timeline.

PROGRAM DEVELOPMENT SCHEDULE

Step 1 Finalize the goals and objectives

Goals:

- to increase the self esteem and self confidence of Mikmaq students in general, and in particular to develop their confidence as students of science;
- to encourage Mikmaq students to develop and maintain an interest in science, to remain in school and to continue to study science, to choose to study science in post-secondary institutions, and thus to better prepare them for careers involving science ;
- to present science which is relevant to Mikmaq students, through which the students will gain the support of parents and the community.

Objectives:

- To conduct a 5 day summer camp for 25-30 grade 5-6 Mikmaq students from Milbrook and Indian Brook communities.
- To provide a balance of activities allowing for lots of sharing, games and fun along with high quality learning opportunities.
- To provide a learning environment in which the participants will:
 - have a wide variety of "hands-on" experiences in science and environmental activities;
 - have a wide variety of outdoor experiences;
 - learn that native science is legitimate science through participation in activities related to native medicine.
- To increase knowledge and to influence attitudes of the participants about the accomplishments and contributions made by native people in the areas of science and the environment.

Step 2 Identify the program focus

Theme: The environment

Key science concepts: Diversity of life
- plant, animal, microscopic...
Interdependencies
- holistic view of environment
- where do humans fit?

Approaches: Hands-on/minds-on
Native learning methods

Step 3 Develop a program skeleton

Step 4 Identify resources needed

Human: coordinator
workshop leaders
resource specialists
invited guests/speakers
chaperones
group leaders - teachers
- students

Other: materials and supplies
transportation

Step 5 Develop a draft program

Step 6 Match draft program with available resources

Step 7 Finalize program details

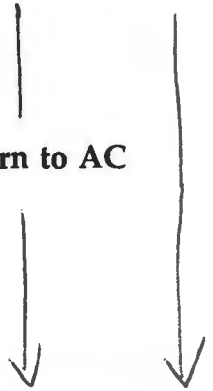
Step 8 Confirm resources

PROGRAM SKELETON


DRAFT

SUNDAY AUGUST 8: (arrival, orientation, welcome, evening event...)


AM

DAY 1 MONDAY AUG 9	DAY 2 TUESDAY AUG 10	DAY 3 WEDNESDAY AUG 11	DAY 4 THURSDAY AUG 12	DAY 5 FRIDAY AUG 13
<p>Setting the Stage</p> <p>Where are we coming from? What are our feelings/thoughts?</p> <p>(Environmental games, art, drama... What do we understand by 'science', by 'environment'?)</p>	<p>Native Medecine</p>	<p>Activities at AC</p> <p>- lab work related to Mondays's field trip - visits and tours of other facilities</p>	<p>Return to AC</p> 	

PM

<p>Local field trip - holistic view of an ecosystem (pond?)</p>	<p>(Native Medecine, cont'd)</p>	<p>Travel to Musquodoboit Forestry Centre</p> <p>(overnight trip)</p> 	<p>Closing</p> <p>What have we learned? How will it influence our lives? What are the next steps for us?</p> <p>Depart for home</p>
---	----------------------------------	---	--

EVENING

<p>Scavenger hunt</p>	<p>Recreational activity</p>		<p>BBQ</p> <p>Story telling</p>	
-----------------------	------------------------------	--	---------------------------------	--

MIKMAQ SCIENCE CAMP
ROLES AND RESPONSIBILITIES

Continuous management, support and supervision will be provided by the combined involvement of six teachers, six high school students and a project coordinator.

PROJECT COORDINATOR shall:

- be in attendance and live in residence at the College throughout the entire Camp
- be responsible for the on-site management and running of the program
- be the on-site contact between the College and the program
- ensure that the program agenda is followed as intended by the planning committee
- coordinate the activities of workshop leaders, teachers and high school students
- respond to concerns from teachers, workshop leaders, students and resource people
- become part of the planning committee as soon as possible
- assist in project evaluation

MIKMAQ SCIENCE CAMP

ROLES AND RESPONSIBILITIES

Continuous management, support and supervision will be provided by the combined involvement of six teachers, six high school students and a project coordinator.

TEACHER/SUPERVISORS shall:

- be in attendance and live in residence at the College throughout the entire Camp (Note: a rotating schedule will be developed to ensure that at least 3 teachers and all high school students are present each night)
- take general responsible for chaperoning all students, and specific responsibility for a team consisting of 5 younger students and one high school student throughout the Camp
- assist workshop leaders as needed
- work closely with the high school students who will be assisting in all activities
- be flexible and make necessary changes or adaptations as the Camp proceeds
- attend a meeting in advance of the Camp (date to be determined) to finalize details
- assist in project evaluation

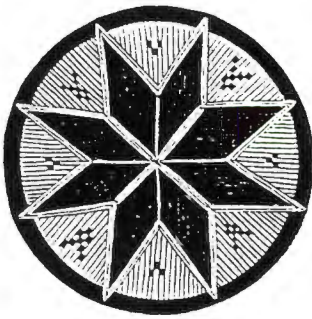
MIKMAQ SCIENCE CAMP

ROLES AND RESPONSIBILITIES

Continuous management, support and supervision will be provided by the combined involvement of six teachers, six high school students and a project coordinator.

HIGH SCHOOL STUDENTS shall:

- be in attendance and live in residence at the College throughout the entire Camp
- assist the chaperones as needed, working most closely in a team consisting of one chaperone and a group of 5 students throughout the Camp
- be responsible for recreation activities for the students
- assist workshop leaders as needed
- assist in social activities as needed
- be responsible for the welcoming and orientation of the students to the College
- be responsible for communicating information as needed between the students and leaders throughout the Camp
- take initiative in mediating situations that may arise involving groups and/or individuals
- act as suitable role models for the younger students
- attend a meeting (date to be determined) in advance of the Camp to finalize details
- assist in project evaluation



MIK'MAQ SCIENCE CAMP

APPLICATION FORM

NAME: _____
Last First Middle

GRADE: _____

ADDRESS: _____

PHONE: _____

BIRTHDAY: _____
Month Day Year

Name of Parent/Guardian: _____

SCHOOL: _____

PRINCIPAL: _____

TEACHER: _____

School Phone: _____

Your application must include a science project that you have done. Please choose **1** of the following projects and, when finished, give it to your teacher along with this application.

POSTER PROJECT

EXPERIMENT

WRITTEN ESSAY

RESEARCH PAPER

Your application and your project must be handed in by **April 30**