Experiential Science 11

A Hands-on Approach to Grade 11 Sciences
Application Package

General Program Description

ES 11 is a program designed to extend and enrich students' understanding of science through projects and field experiences involving biology, chemistry, geography, and environmental sciences. Hands-on projects such as forest structure analysis, understanding the marine environment through scuba diving and sailing experiences, studying the impact of human activities on water systems as well as our impact on animal populations link classroom learning with students' real world. All these experiences will also allow students to have a broader perspective on environmental issues and resource management.

The challenges of the program help young people to grow intellectually, physically, socially, emotionally and culturally. ES 11 encourages each student to become a responsible citizen, with the self confidence and skills needed to meet many challenges of a changing world.

Students should have a reasonable level of physical ability, for example spending long days hiking and on their feet. Students should also be comfortable and able to swim in order to participate in the diving portion. Students with asthma may not be able to participate in the scuba diving.

Goals and Objectives:

To encourage and develop:

- responsibility about learning, about themselves and their role in society, and about the environment·
- thinking and problem solving skills through an integrated approach to academic subjects focused on the sciences
- knowledge and appreciation of the natural environment and the different ecological zones within the Yukon
- self confidence, self discipline and rigor in science endeavours
- a heightened commitment to nutrition, health and fitness
- skill and knowledge in a range of field studies
- cooperative attitudes and habits through group interaction
- leadership skills
- communication and observation skills
- outdoor pursuits skills
- skills in working with scientists and other community members

Major Expedition and Field Studies

There will be a number of major field studies and science projects planned for the semester. In the past we have established permanent study sites at different locations: Teslin, Haines Junction, Whitehorse, Porter Creek, Juneau, Prince Rupert, Salt Spring Island (Mount Tuan, Ganges). These areas are monitored every trip and added to a school database system.

All these field studies are completed using short trips (possible overnight) in the territory or around Whitehorse, and a major field trip using the ferry from Skagway to Vancouver Island. In the past we have used a bus to tour the island; diving, caving, sailing and many different field studies are completed at different locations. We cook and sleep at schools, campgrounds and community centres. The long trip is usually three weeks and gives students an unforgettable group experience. Breakfasts and lunches are usually prepared on the road using our own equipment, and every student is responsible for cooking a dinner for the entire class.

Program Teacher Instructors

This Program will be taught and directed by a teacher who is highly qualified in both academic studies and outdoor activities, with the involvement of specialized personnel as required.

Program Costs

Students are not expected to buy a lot of equipment for the trip. Those who have suitable equipment will be expected to use it; however, the program will provide equipment for those who cannot provide their own. Students will be expected to pay **$550** for the semester. The course fee will help to cover the costs associated with activities, transportation and food (breakfasts and lunches) during the extended month trip on the island and through the semester.

Wood Street Centre

Wood Street Centre is located in downtown Whitehorse at 411 Wood Street. There are four different programs at the school, each with between 16 and 21 students. The small school has a positive atmosphere with a teacher dedicated to each individual.

The ES 11 classroom is located on the first floor. Two days a week, ES 11 students meet at the Yukon College science labs to complete chemistry and biology laboratories. Spending a full day on each subject allows for multiple laboratories covering complete segments of the curriculum.

ES 11 Course Content

The subjects offered within ES 11 cover well beyond the content of the regular Grade 11 course load, and will be taught in a manner that integrates class work, science projects and field studies. The combination of the courses meets the new BC curriculum requirements. The field trip allows more teaching time with a possibility for the student to get 20 credits within the same semester, instead of the regular 16 credits offered in a regular classroom setting. ES 11 is a demanding program offering considerable rewards and enriching experiences for those who are prepared to accept the challenges of the program.

ES 11 Semester	Alternate Semester
* Chemistry 11 (4 credits)	* Social Studies 11
* Biology 11 (4 credits)	* English 11
* Geography 12 (4 credits)	* Elective 11
* PE 11 (4 credits)	* Elective 11
* Visual Art 11 (2 credit)	
* Applied Skills 11 (2 credits)	

ES Course Description

Chemistry 11

Chemistry 11 is an introductory course in the study of chemistry. Major topics include: scientific method, measurement in science, theory of matter, the mole, chemical reactions, gases, atomic structure, the periodic table, chemical bonding, and organic chemistry. The course emphasises lab techniques and requires students to interpret results and draw their own conclusions. Chemistry labs will be offered in the college setting.

Biology 11

The Biology course addresses basic methods and principles of biology, genetics, population and population ecology, and a survey of the biology of viruses and the five kingdoms of living organisms. The course will integrate field activities, lab studies, projects, lectures and readings about a wide range of biology topics. Students will be involved in data collection and analysis focusing on contemporary Yukon issues. A major study and preparation of study notes for all classes are part of the program.

Geography 12 (4 credits)

The Geography course introduces students to the nature of geography. We will look at weather systems, climate and the world, tectonic processes, gradation processes, natural resources, management of natural resources as well as sustainability of natural resources in Canada and the world. This course is very relevant to the ES trip along the coast of Alaska and BC.

Applied Skills and Field Methods 11 (2 Credits)

The ES course integrates a range of field study methods, such as transect analysis, forest cruising, aquatic studies, marine studies and more. Experiential Science, for the benefit of learning and better understanding our environment, is the keystone of the ES program.

Visual Art 11 (2 credits)

The visual Art course provides students with two and three dimensional activities, focusing on landscape sketching, scientific and field illustration, watercolour, and sculpture. The art skill will be integrated with the field studies and scientific exercises. The two units, in Visual Art 11 programs, meet the graduation requirements for fine arts.

Physical Education 11 (4 credits)

The Physical Education course will introduce students to a wide range of physical activities outside of the gymnasium in order to develop an active lifestyle. Activities such as scuba diving, sailing, sea kayaking, hiking and other outdoor activities will be part of the curriculum. Students will also have to follow a training program involving monitoring their exercise and nutrition.

Student Information

This co-educational program is open to Grade 11 students who have the essential Grade 10 pre-requisites. Rural students may gain access to the program by either arranging to take the alternate semester in their community school or by boarding in Whitehorse and attending a local high school. Students must be able to participate in the fieldwork associated with the program. Selection is limited to a maximum of 16 students per semester.

Student Expectations

Students will be expected to take part in all program activities. They will participate in the evaluation and improvement of the program. They will be asked to undertake a major science project. Students will keep a journal (written and pictorial) and participate in major scientific studies, as well as contribute to a database program initiated by the school. Students will also be expected to produce quality reports analyzing field data and independent reading and research. Inappropriate or unacceptable behaviour that puts others at risk may result in dismissal from the program.

The Process

Thank you for your interest in the Experiential Science program at Wood Street Centre. Due to feedback from various sources the selection process for ES 11 has been refined for this year's intake. As you may be aware we always have more applicants to the program than space, a common situation with specialty programming. Every year we select 16 male and 16 female students from across the Territory. At the time of selection we also choose a waiting list, which is kept confidential and referenced if a student cannot participate or accept their space.

The selection process for this year is:

Step 1- The Review

All application packages will be reviewed according to the following criteria:

* There are three positive confidential references
* There are no significant behavioural issues
* The student has the academic prerequisites to take the courses of ES 11
* The student's academic standing in one of the following: Science 10, English 10, Math 10 or Social Studies 11
* Grade 10 attendance - unexcused absences only
* The evaluation of the mandatory assignment

A list will then be generated of the top 40 suitable candidates. Applicants not selected for Step 2 will be notified via electronic mail.

Step 2- Familiarization experience

As an assessment and familiarization experience these 40 student candidates will be invited to a weekday sleepover activity at Wood Street Centre from 4:00 pm - 7:30 am on a selected date mid-May. During this time two ES instructors and representatives from the Department of Education will evaluate students during the activities that are representative of the ES 11 experience. Thirty two students will be selected from this candidate group. Students not selected from this group of candidates will be placed on the confidential waiting list.

Step 3- Notification

All candidates will be notified of the final selection outcome by email. Successful candidates selected for the program must confirm their acceptance by email to anne.daub@gov.yk.ca or by phone with Anne Daub at Wood Street Centre, (867) 667-8413.

We wish you success with your application process.

Wood Street Centre Educators

Experiential Science Application Package

My completed application package contains the following:

Student Name: _____

- ☐ Application form - 2 pages (legible and fully completed)
- ☐ Research Assignment
- ☐ 3 Reference Letters in sealed envelopes
- ☐ Report Card from January or February of the 2011/2012 School Year

WE acknowledge that we have read "The Process" and understand the selection process.

Student _____ Parent _____

_____

_____

Wood Street Centre Use only

Date Received _____

School: _____ Assignment _____

Email: _____ Report Card _____

Application _____ References _____

Observations:

Application Form for Experiential Science 11

STUDENT Information

Name: _____ Gender M ☐ F ☐

Address: _____

City: _____ Postal Code: _____

Home Phone: _____ Student Cell: _____

Present School: _____ Contact Email: _____

Yukon HealthCare Number: _____ Date of Birth: _____

PARENT Information

Parent/Guardian: _____ Daytime Phone # _____

Evening Phone # _____ Parent Email: _____

Parent/Guardian: _____ Daytime Phone # _____

Evening Phone # _____ Parent Email: _____

Alternate Contact: (Name and Phone #) _____

Semester Preference (preference will be accommodated if possible, please explain your preference in the space below)

☐ Spring semester only ☐ Fall semester only ☐ Either Semester

Reason: _____

I have read the information provided and support my daughter's/son's application for enrolment in ES 11.

Student Signature _____ Parent Signature _____

Date: _____

For more information, please call Wood Street Center: 667-8413.
Website: www.yesnet.yk.ca/schools/woodst/experiential

Application Form for Experiential Science 11

In the space provided, answer the following questions.

Why do you want to be part of the Experiential Science 11 program?

What do you have to offer the Experiential Science 11 program?

Research Assignment that demonstrates your interest/suitability to the program.

Length: 500 - 700 words, include diagrams if needed. Must not exceed two 8 1/2 X 11 inch pages.

In Experiential Science we learn about how everything and every location in our biosphere is connected. Humans have a tendency to consume and abuse resources with little concern on the impact. In a 500 to 700 words essay explain how you see human reducing their use of hydrocarbons in order to minimize the emission of Co2 in the atmosphere, and consequently the warming planet. Explain your answer on a global scale, as well as you can do personally.

Experiential Science 11
Student Reference Form

Please distribute to 3 of the following to complete:

* School Administrator (Principal or Vice Principal)
* School Counsellor
* Community Education Liaison Coordinator (CELC) *
* Teacher
* Community Member

Dear Reference:

Thank you for taking the time to complete this form. The student whose name appears below has applied for admission to Experiential Science 11. This reference is an important part of the application and your cooperation in providing a full and candid report will be greatly appreciated.

Please return the completed form to the student in a sealed envelope (sign across the seal).

Name of Student: _____

Name of person completing this reference: _____

Position: _____ Length of time acquainted with Student: _____

In completing this form please rate the student in the following areas using a scale of 0 to 10 with 0 being very poor and 10 being outstanding. Any score below 5 will be considered a negative reference.

	0 _____ 10									
Shows Courtesy/Respect	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Works Well in Group Activities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Works independently	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Listens/Follows Directions	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Participates in Class	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Demonstrates self-discipline	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Responds positively to challenges	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Could benefit from WS Programming	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Is deserving of the opportunity	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

All completed forms will be kept confidential.

If you would prefer to discuss this over the telephone or to provide additional information, please check here. ☐

Contact Number _____ Best time to call: _____

In your opinion how would the student adapt to an extended 30 day field trip? Please explain.

Please include any other comments that would be important considerations for this student's application.

Date: _____ Signature _____

Thank you.