Proven Environmental Projects from the Great Northwest

Cedar Bay Interpretive Trails Project

Learn-FIT

Highlighting the importance of community partnerships in providing engaging environmental education experiences to students in K-12.
Where’s it happening?
Keewatin-Patricia District School Board and the Northwest Catholic District School Board.

Sioux Lookout:
Community of 5000 people
4 schools
400 km. northwest of Thunder Bay
500 km. east of Winnipeg, MB
Cedar Bay Interpretive Trail Sign Project

Funded by Mountain Equipment Co-op

Hosted by Friends of Cedar Bay in partnership with New Vision Unlimited
The Project…

• Goals:
  To involve community members in the development of interpretive trails signs for the Cedar Bay area.

To help visitors to Cedar Bay gain a greater awareness and appreciation of the natural and cultural features that surround them.
Project Overview

Cedar Bay Interpretive Trail Project

Friends of Cedar Bay

New Vision Unlimited

Community Resource Volunteers

Queen Elizabeth D.H.S.
Timber Frame Welcome & Information Kiosk
Spring 2008
Trail Posts and Brochure
Fall 2008

Sioux Mountain Public School
Interpretive Trail Sign
Spring 2008
Content for Interpretive Trail Brochure
Fall 2008

Sacred Heart Catholic School
Interpretive Trail Sign
Spring 2008
Phase 1: Designing and Constructing a Welcome Kiosk

- Local timber framers volunteered their time to assist a traditional technologies class in preparing the posts and beams for the project.

- The class spent one month working on the project with lots of help from community members.

- The raising of the kiosk really made the experience for the students.
The Finished Product ...

The ribbon cutting celebration was held in June 2008.
Phase 2: Creating Two Interpretive Trail Signs for Cedar Bay

• Two Grade 7 classes from two different schools expressed interest in participating in the project.

• Within each class, students worked together in small groups to develop the content for one 24” x 36” interpretive sign.

• With the help of volunteer community “experts”, each class spent several hours over an 8 week period developing the content for their trail sign.

• One class was assigned “Land”, and the other “Water”
The interpretive signs the classes were to develop for Cedar Bay will be a similar style to this…
May 2008...

Each class participated in an Exploration Walk to Cedar Bay during which they explored and discovered new things about the ecology of the area.

This Exploration Walk helped students to select the plants and animals they wanted to focus on in their sign.
Students participated in 2-3 classroom work sessions at their schools...

Cedar Bay Interpretive Trails Project
1st Classroom Work Session

Name of group members: ________________________________

Name of Resource Person: ______________________________

Place a check mark beside each task, once your group has completed it!

TASK 1 - As a group, decide on a specific topic area to focus on. Remember, your information will relate to our theme! Your resource person will help you with this.

Selected Topic: ________________________________

TASK 2 - Brainstorm everything you know about the selected topic.

Use the sheet provided.

TASK 3 - Each student develops 2-3 questions about your topic.

(What do you want to know about this topic? What are you curious to learn? What might others be curious about?)

TASK 4 - Each student shares her/his questions with the group.

As a group, select 3-5 questions to answer (or one for each group member). Remember, we want to limit our info to 3-5 main points!

TASK 5 - Begin researching the answers to the questions, by asking your resource person to share their knowledge (they may have a story to share with you) and by exploring the reference materials available in the classroom. Take notes on the sheet provided.

1-2 students (depending on your group size) should be designated to find or create images, pictures, or graphics related to your focus area. Websites offering photos and graphics for public use, without copyrights, can be found by searching: Creative Commons.

Be sure to record which website you find images so we can ensure we can safely (and legally!) use the material.

Any digital material that is created or selected should be saved!

What I want to Know - Student Question Sheet

What do you want to know more of?

Come up with 2-3 questions about the topic that you would like to know the answers to. Also, think about questions that visitors to Cedar Bay might have about your topic area.

Question 1 ___________ ___________ ___________ ___________

Question 2 ___________ ___________ ___________ ___________

Question 3 ___________ ___________ ___________ ___________

Questions we all Find Interesting...

After everyone has shared their questions with the group, select 3-5 questions to focus on and write them in the space below.

As a group, decide how you’d like to go about answering these questions. You may assign one or two people to each different question or research them together as a group.

However, you choose to do it, remember to make use of all the resources available to you!

First, listen to what your resource person has to say about the topic. He or she likely has some interesting stories to share!

Next, search some of the cool reference materials we’ve brought in for the answers to your questions.
Work Sessions…

• Work sessions facilitated by local “experts” in the areas of plants, forest ecology, fish, reptiles & amphibians, insects, mammals, birds, and cultural history & significance

• Students chose which focus group they wanted to work with

• Students selected specific plant and animal species for the sign content.

• Research was done during guided work sessions and during science or reading blocks.
6 months,
loads of editing,
and several volunteer hours
later...
The DRAFT was ready to send to the sign company...

Reptiles of the Water’s Edge

Imagine surviving a winter outdoors in Northwestern Ontario and not being able to produce your own body heat? That’s the case for these cold-blooded, die-hard reptiles found in the Sioux Lookout area.

Harlequin Beauty, Eastern Painted turtles (Chrysemys picta bellii) are unable to swallow their food on land. Their meals, consisting of leaves, salamanders, tadpoles, frogs, crayfish and snails, must be retrieved and eaten in the water.

Garter snakes get their name from the pattern that some men wore to hold up their scrotum. The pattern is vividly colored, just like the stripes on the snakes. Not all garter snakes have yellow stripes like the ones around here. Some have red, orange, blue or green stripes! A few have no stripes at all.

Eating and sleeping below the surface...

With a tongue that doesn’t move, Western Painted turtles (Chrysemys picta bellii) are unable to swallow their food on land. Their meals, consisting of leaves, salamanders, tadpoles, frogs, crayfish and snails, must be retrieved and eaten in the water.

How old is that fish?

The fish in the water is silent, the animal on the earth is noisy, the bird in the air is singing. But the man has in him the silence of the sea, the noise of the earth and the music of the air. —RABINDRANATH TAGORE

Muskrats reach sexual maturity at 3–5 years, with females maturing later than males. Females grow faster and live longer than males, and thus reach greater lengths and weights. Muskrats in the cooler, northern portion of the range have a slower growth rate than fish located in southern portions.

In optimal living conditions, Muskrats can live up to 30 years and can grow up to and exceed 20 cm (8 inches) in length. —Rabindranath Tagore

Fishing Tip

Fishing in deeper water during the day, and shallower water in the early morning and evening. Also fish in and around dense vegetation during colder months, as these are productive spots to try your skill (or luck) for this popular game fish. Producing lures that are the same color as the fish can increase your chances of catching a fish.

What BUGS you?

Next time you’re standing by a still pond, have a careful look. Chickens are you’ll see a water strider skittering across the water’s surface. Water striders, also known as Gerridae, are fast-moving bugs and vicious predators.

Walking on water...

Water striders’ legs are covered with microscopic hairs called microtact, which help them to walk on the water. Water striders’ feelers carry information to the water’s surface, which helps them maintain balance. The feelers also sense the surface of the water and guide the insect in its movements.

Vicious predators

Water striders are vicious predators. They wait in wait in the shallow waters and attack by piercing the prey’s body and sucking the juices from inside.

Faster than you can see

Water striders travel so quickly — at least 1.5 meters per second — that for a long time it was difficult for scientists to understand exactly how they move on the water. Scientists were able to see that the water strider uses its middle set of legs to push it through the water. The back legs are used for steering.

Nibi at work and at play

Nibi, the Ojibway word for water, is considered sacred to the Anishnabe people who have traditionally used it for travel, fishing, trapping, gathering food plants such as wildrice and cattails, cooking, cleaning, spiritual ceremonies, and recreation.

In the Sioux Lookout area we are fortunate to have such an abundance of freshwater to enjoy. We must respect this valuable resource in order to ensure that future generations of all peoples can enjoy clean waterways for work, play and survival.
Phase 3: Developing a Self-Guided Interpretive Trail

- Interested Gr. 7 students from one school were invited to participate in the final phase of the project
- Students participated in an *Plant Discovery Walk* at Cedar Bay
- In pairs, students were assigned 2-4 trees or plants to learn and study
- Students participated in 2 follow-up visits at the school
- Students researched plants and wrote paragraphs during class time and submitted material by a deadline
Plant Discovery Walk at Cedar Bay
Next…

the high school students became involved…

Students from the Gr. 12 Resource Management class participated in 2 small group projects…

1) **Group 1** - Edited the research from the Gr. 7’s and used it to create an interpretive brochure with photos of plants and trees

2) **Group 2** - Measured, cut, and prepared 10 pressure-treated 4”x 4” posts as numbered markers for viewing plant and tree species. This group also marked each waypoint on a GPS unit and worked with the local MNR to create a trail map using a GIS program.
Currently…

- Final edits are being made to the brochure before 500 copies are printed off.
- The self-guided trail brochures will be available at the Welcome kiosk in the spring.

As for the posts and the 2 interpretive signs…

We’re waiting for the ground to thaw before those can be placed!

A Grand Opening and Community Celebration will take place in June 2009

All students, teachers and other community members who contributed to the project will be honoured at this event!
Final Outcomes of the Cedar Bay Interpretive Trails Project

• Over 80 students from Gr. 7-12 participated in this community project, along with 4 teachers and 15 volunteers!

• Increased accessibility and enhancement to a public natural space

• Expanded awareness and understanding of local flora, fauna, and ecology by project participants and future visitors to Cedar Bay

• A sense of stewardship for the natural environment and for Cedar Bay was fostered amongst the youth

• Students were introduced to a variety of community members with a diverse range of knowledge and expertise
Learn-FIT

Ontario

New VU

"Exploring Vision Without Limits"

ACTIVE2010

Gr. 4 Habitats Program
Learn Fit

...An adventure-based outdoor education program made possible through the Communities in Action Fund of the Ministry of Health Promotion and local supporters.

What are the goals of Learn-FIT?

1) To increase the level of physical activity of school aged children (K-12) during school hours

2) To introduce human powered modes of transportation as an earth friendly form of lifestyle fitness that can be easily introduced and practiced throughout participants’ lives.

3) To provide opportunities for interactive, experiential outdoor learning that meet curriculum expectations for each grade
Introduction to Mountain Biking in 4 periods of Gr. 10 Outdoor Ed.
Seasonal Changes...

A field trip for Grade 1 students
Gr. 11 Leadership Class facilitates the Great Canadian Shoreline Clean-Up in Sioux Lookout
Gr. 4/5 Orienteering
Learning to
Cross Country Ski
Gr. 12 Open LYNX class
Shelter Building for Gr. 7 Structures Unit
Environmental Science for all ages...

Botany Hike with Gr. 11 Biology class

Recycling & Composting with Senior Kindergarten
ACT 2009 Challenge

• A Grand Finale to the first year of Learn-FIT!

• A community fundraising event with the purpose of sustaining Learn-FIT programs for the 2009/10 school year

• An inter-school challenge to travel the furthest accumulated distance using human-powered modes of transportation (during school hours) by June 2009

• A community challenge to reach 2009 km. by June 2009 (including all schools, local organizations and individuals)
Final Outcomes of the Learn-FIT Program

- Over 350 students in K-12 from 5 different schools have been engaged in outdoor experiential education through Learn-FIT programs since September 2008

- Learn-FIT participants have traveled a total accumulated distance of 1000 km using human-powered modes of transportation including: walking, biking, snowshoeing and x-country skiing.
• Awareness raised around the environmental and health benefits of choosing human-powered transportation rather than motorized

• Teachers and students have been exposed to a range of possibilities for outdoor classrooms and activities

• Increased motivation and capacity building for teachers, students and community members to spend active, educational time outdoors
Thank you for your attention

Now, it’s time to share your Success Stories for School Partnerships…
Potential Partners for Environmental Projects

- Conservation Authorities
- Municipal or City Governments / Departments
- Local Non-Profit Organizations
- Local Businesses or corporations
- Colleges or Universities
- National Non-Profit Organizations
- Ontario Ministries
- Other Schools or School Boards