

Headwaters: The Next Stage in High School Integrated Programming

By Mike Elrick

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In 2006, the grade 12 program “Headwaters”¹ was initiated and offered the following four courses: Environment and Resource Management, Canadian Literature, Outdoor Activities and Interdisciplinary Studies. In 2007 the credit of grade 12 university English replaced the Canadian Literature credit but it is still offered to those students who wish to take it. Headwaters runs concurrently with CELP and both programs take place at the same off-site campus, 15 minutes from town. One teacher is designated for the three credits in CELP, one teacher is designated for the three credits in Headwaters, and one teacher is designated for the two credits for the English courses of both programs. By the end of March 2005 the first Headwaters program was launched.

Some Program Specifics

I have always described our program as simply “school.” We teach curriculum courses outlined by the Ministry of Education. We are certified teachers hired by the public school system, and we support students to continue to play sports or music with their home schools. Our integrated programs are not intended to exist in isolation, but rather to support and enhance the educational

possibilities for those in our community. The skills and lessons we impart are meant to be “taken back” and used in each student’s home school, university or college.

The overall theme of the Headwaters program is *A Journey to the Source*. We attempt, metaphorically, to journey farther upstream, to the source of environmental and community problems, and to the source of solutions for a sustainable future.

Food is a topic that is explored in depth and used as a vehicle to accomplish much of the curriculum for several courses. Every Friday the students are responsible for designing a meal for the entire class using the principles of locavores.² Using a local online delivery service that specializes in locally grown and organic foods, the students order their ingredients on Monday, delivery takes place Thursday, and lunch is made for Friday. The delivery company lists beside each of its ingredients whether the product is organic and/or locally grown, and where the product comes from. My assignment allows them to order only locally grown products (mostly from Southern Ontario) and asks them to calculate their food mileage for each meal. This is calculated as a basic estimate by



averaging the food mileage of each item, excluding spices. (There are more complex formulas available for doing this that account for the type of transportation used to deliver the food item for sale.) Our first meal in February, for example, was maple parsnip soup and sweet potato quesadillas. This assignment also encourages students to start their own connections locally. For example, one student knows an egg farmer; another knows a beekeeper who produces honey. The main purpose is to reduce one's ecological footprint by lowering food mileage and to make the connections to healthy agricultural lands, local farmers and good tasting food!

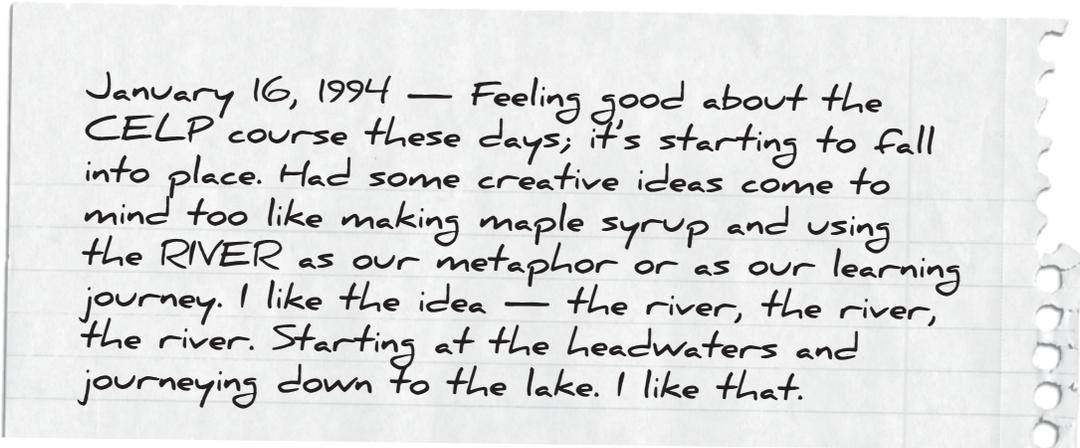
In March we make maple syrup with a small 50-bucket operation. It is the first "harvest" from the land with our own hands. In conjunction with this we are piloting this year a grade one education program called "MapleKeys," which will be taught by the grade 12 students and will meet four main objectives of the grade one Science and Technology curriculum.

At the end of March we start, in a small, makeshift greenhouse, seeding a vegetable garden where we will grow our food to use weekly, and to share with our parents at a closing celebration meal in late June. As well, fall crops will be sown in order that the following year's class can utilize the bounty for their locavore meals in the winter and spring. This involves digging, double digging, planting, weeding, fertilizing and

harvesting. In mid-May we transfer the plants from the greenhouse to the garden and also help some plants along with cold frames. This year we hope to have a few chickens to obtain eggs from, and more importantly, to demonstrate the soil cycle by making compost from their manure. We have some perennial rhubarb plants and often our first tastes of spring come in the form of rhubarb pie sweetened by maple syrup. Soon there is salad and spring squash. Living locally is an overriding principle of the Headwaters program and food is our entry point to the curriculum objectives.

Endnotes

1. The name "Headwaters" is widely known in the outdoor field as the business name for Hugh Stewart's canoe manufacturing business in Quebec. The name Headwaters was first suggested by the CELP English teacher Janet Dalziel. Michael Elrick felt it was necessary to gain permission from Hugh Stewart to use this name, thus, a letter of permission was sent. Hugh Stewart responded that he has no legal authority over the use of the name, though he was grateful for being asked and sanctioned its use for our program.
2. According to the website www.locavores.com, locavores' principles are as follows:
 1. If not locally produced, then organic.
 2. If not organic then family farm.
 3. If not family farm then local business.
 4. If not local business then Terroir (foods known from the region).



January 16, 1994 — Feeling good about the CELP course these days; it's starting to fall into place. Had some creative ideas come to mind too like making maple syrup and using the RIVER as our metaphor or as our learning journey. I like the idea — the river, the river, the river. Starting at the headwaters and journeying down to the lake. I like that.