

# RSU 34

## Service Learning Mini-Grant Form

### 1. Contact Information

Teacher(s): Ed Lindsey

Date: 1/23/2010

School: OTHS

Project Name: Mercury in Watersheds

Grade Level: 11-12

Approximate Number of Students Implementing Project: 14 to 20 per year

Subject(s): Chemistry

Project Dates: 9/2010 and beyond

### 2. Project Description

a. Describe your project in one to three sentences.

Students conduct original research into the behavior of mercury, a toxin, in a local watershed using dragonflies as bioindicators of mercury bioaccumulation.

b. Academic Integrity- Identify the knowledge and skills addressed by the project. Identify relevant state/local standards to be met.

1. Students apply an understanding of systems to explain and analyze man-made and natural phenomena.
2. Students evaluate the effectiveness of a model by comparing its predictions to actual observations from the living environment.
3. Students methodically plan, conduct, analyze data from, and communicate results of in-depth scientific investigations, including experiments guided by a testable hypothesis.

c. Student Ownership- Describe how students will be or were involved in selecting the idea and planning/implementing the project.

Students sign up for the class knowing it is service learning, and knowing what the overarching goals of the research are. They catch the dragonflies. They take watershed measurements. They form teams and develop original, testable hypotheses.

d. Apprentice Citizenship- Describe the community need met by the project. List the community partners who will be involved.

Mercury is global toxin because it travels through the atmosphere. It used to be too expensive to measure it to know much about how it affects localities. With a new technology at the University of Maine, it is affordable to make environmental mercury measurements, and the need now is for citizen scientists to conduct research to learn new things about the behavior of this toxin in the environment.

### 3. Estimated Project Budget

(Maximum total budget funds available=\$300 for one teacher and \$500 for two or more teachers collaborating on the same project) If this mini grant is approved for funding, please send receipts and/or invoices for all approved expenses to Judy Pusey before June 1, 2011.

Category	Description	Amount
General/Miscellaneous		
Equipment	Insect nets, from BioQuip, 7615NA, \$12.95 each, quantity = 20, for a total of \$259 which leaves some for shipping.	\$300
Transportation		
Services (Telephone, Mailing, etc.)		

	(Maximum total budget funds available=\$300 and \$500 for two or more teachers collaborating on the same project)	Total \$300

4. Are you willing to participate in the required Service-Learning Celebrations?  Yes  No  
 (such as the KIDS Student Summit, Hall of Flags Celebration, RSU 34's Celebration)

5. Promoting your Service-Learning work  
 (Please select at least one of the following)

- Willing to speak at a faculty meeting about your project  Yes  No
- Student presentation at a school board meeting  Yes  No
- Write an article for the local papers  Yes  No
- Willing to speak at a civic organization (Rotary, Kiwanis, etc.)  Yes  No
- Willing to display project material in community (library, bank, etc.)  Yes  No
- Public Service Announcement/Commercial for public access channel  Yes  No
- Set up a display at the RSU 34's Service Learning Celebration  Yes  No
- Other:

6. Documenting the Project as You Proceed

a. Approximate Number of volunteers who will be involved in the:

Project 5                      Hours 20                      Mileage 50

b. Are you willing to provide us with the some or all of the following documentation?

- Copies of press releases or newsletters?  Yes  No
- Photographs, digital pictures, or other documentation?  Yes  No
- Examples of classroom materials, such as reflection activities, rubrics, or other types of work created for the project?  Yes  No

c. Are you willing to put your project on your school's website?  Yes  No

## 6. Project Evaluation

- a. Describe the culminating assessment, product, performance, celebration, etc. that will take place and the specific documentation that you will provide to the Service Learning Leadership Team.

**The goal of the project is to present the research to audiences. There will be a public presentation at John Bapst High School in the Spring this year. Other venues for this year might be Maine Department of Inland Fisheries and Wildlife, and to the School Board. The work will also be documented on the website, Acadia Learning, maintained by the SERC Institute of Acadia National Park.**

- b. Describe how you and your students will reflect on and evaluate this project.

**The most important of these opportunities will be during the presentations when people get to ask questions.**

*To be completed by the Service Learning Leadership Team*

The Service Learning Leadership Team approves this Service Learning Project. Yes Date:  
*Comments:*

The Service Learning Leadership Team does not approve this Service Learning Project because:

- The expense is too great.
- It is not student-centered.
- It does not meet a need in the community.
- The connection to the curriculum and the Maine Learning Results is not clear.

*Comments:*