

Title: Herring Gut Learning Center's Aquaponics Course

Cover Letter: I am requesting \$2500, to improve the Classification and Seed Plant Units currently taught at Brunswick Junior High School, to our 6th grade students. The money requested would cover the cost for the two, 6th grade teachers to attend the Aquaponics Course taught at the Herring Gut Learning Center, in Port Clyde, Maine, and for the materials to construct the necessary additional kits for our Science classes. The current Classification and Seed Plant Units, though effective, are mostly, research (Internet-based, books, magazines, and Encyclopedias) and worksheet based units with the occasional lab. The anticipated course will allow the 2 teachers to offer future 6th graders an engaging, hands-on approach to learning. The course will help us to develop instruction and curriculum that will spark creativity and meaningful connections to students' daily lives. The course promises to train teachers in engaging, hands-on instruction that increases student interest and comprehension in science, math, social studies and English language arts. Aquaponics is the cultivation of plants and aquatic species in a re-circulating environment. A combination of aquaculture and hydroponics, aquaponics pairs fish and plants in one integrated system. Aquaponics would take 2 (of the 6) segregated units taught in 6th grade, at BJHS into 1, integrated, powerful, project-based unit of understanding.

Total Budget for this project: Tuition, housing, and materials for the 2.5 day course is \$785/teacher.

Cost for additional materials to construct additional aquaponics kits including tank, filter, pumps, and planting materials for all 8, Science classes in 6th grade at Brunswick Junior High is \$465/teacher.

Total cost for 2 teachers (Jayme Seheult and Joel Higgins) from Brunswick Junior High for this project is
 $\$2500.00 = (785 \times 2) + (465 \times 2)$

Amount requested from BCEF: The total budget for this project cost of \$2500.00, please.

Would you consider partial funding? Yes, partial funding for the proposal would be considered, though it would be most helpful if Joel and I could attend this course together as we coordinate our curriculum, lessons, projects, assessments, and labs regularly throughout the school year. This course would allow us to plan our Classification and Seed Plant Unit together during the summer and create 4 kits for each of our science classes we teach.

We could not purchase the additional materials for additional kits for all classes and just

have one kit for each teacher to be used for his 4 classes. This would subtract \$930 (465 X 2) from the \$2500, requested for a new total of \$1570, please.

Do you have other funding sources? No other funding sources have been requested at this time, but I could ask the Brunswick Junior High School, Science Department (Suzi Ring, Department Head) for possible funding.

Number of students who will benefit from this project:

The total number of 6th graders year after year enrolled at Brunswick Junior High School and 2 teachers.

Grade levels that will benefit: Grade 6

Proposed start and end dates for this proposal:

The proposed start and end date for this proposal is the timeframe of the course dates of July 7,8, and 9, 2015, in Port Clyde, Maine, at the Herring Gut Learning Center.

1-3 page Project Narrative (no more than 1200 words): 1. Project Description:

I am requesting this grant, to improve the Classification and Seed Plant Units currently taught at Brunswick Junior High School, to our 6th grade students. The money requested would cover the cost for the two, 6th grade teachers to attend the Aquaponics Course taught at the Herring Gut Learning Center, in Port Clyde, Maine, and for the materials to construct the necessary additional kits for our Science classes. The current Classification and Seed Plant Units, though effective, are mostly, research (Internet-based, books, magazines, and Encyclopedias) and worksheet based units with the occasional lab. The anticipated course will allow the 2 teachers to offer future 6th graders an engaging, hands-on approach to learning. The course will help us to develop instruction and curriculum that will spark creativity and meaningful connections to students' daily lives. The course promises to train teachers in engaging, hands-on instruction that increases student interest and comprehension in science, math, social studies and English language arts. Herring Gut will provide teachers with the lessons, materials, and tools needed to successfully apply and adapt the projects to fit the teachers' own instructional needs. I believe teachers need more opportunities for hands-on teaching experiences that will in turn spark their creativity (and thus, the creativity of their students) and increase their content knowledge to improve student achievement in core academic subjects. This grant will allow for that, because Herring Gut Learning Center offers that- a standards-based Aquaponics curriculum. Aquaponics is the cultivation of plants and aquatic species in a re-circulating environment. A combination of aquaculture and hydroponics, Aquaponics pairs fish and plants in one integrated system. Aquaponics would take 2 (of the 6) segregated units- Classification

and Seed Plants- taught in 6th grade in the fall, at BJHS into 1, integrated, powerful, project-based unit of understanding. The new course offering to our 6th graders would also teach conservation and sustainable practices in a practical, meaningful way that would connect to students' daily lives and coastal surroundings. Students would become responsible not only for their learning, but for the survival of aquatic life and of plants grown using the Aquaponics system. This opportunity ensures students' interest in a hands-on learning style and in their success and the curiosity and motivation to pursue a future in the sciences.

2. Budget:

The total budget request for this project, to benefit all future 6th graders of Brunswick Junior High School and the 2, 6th grade teachers is \$2500.00, please. The expenses are broken up in the following way:

Tuition, housing, and materials (including standards-based aquaponics curriculum, lesson plans, content knowledge, and tools) for the 2.5 day course is \$785/teacher, equaling \$1570.00.

Cost for additional materials to construct additional aquaponics kits including tank, filter, pumps, and planting materials for all 8, Science classes in 6th grade at Brunswick Junior High School is \$465/teacher, equaling \$930.00.

We are not seeking travel reimbursement to the course.

Partial funding for the proposal would be considered, though it would be most helpful if the two teachers could attend this course together as they coordinate curriculum, lessons, projects, assessments, and labs regularly throughout the school year. This course would allow the teachers to plan the Classification and Seed Plant Unit together during the summer and create 4 kits for each of the science classes taught.

No other funding sources have been requested at this time.

3. Evaluation:

Impact of this grant will be measured by student engagement, activity, achievement, and success (using the Aquaponics kits) with the newly combined Classification and Seed Plants Units, using the study of Aquaponics and the project-based, hands-on, scientific, learning approach; What Science should be. This grant will allow us to move beyond the traditional pencil and paper tests and assessments, research projects and worksheets, and even beyond digital, viral learning. An evaluation will be completed upon completion of the course and upon completion of the Aquaponics unit presented to the students in the fall semester of 2015. The evaluation will include a summary of the details of the experience, training, and coursework received at Herring Gut Learning Center and of the success of the students in the fall with Aquaponics.

4. Optional:

Have I mentioned this grant would allow us to present content in an engaging, hands-on approach that would not only inspire and motivate our 6th grade students to learn, but would naturally increase student interest and comprehension in science, math, history and the arts at Brunswick Junior High School?