"I am haunted by waters"
by Neville Morgan Barry

Title of Unit: "I am haunted by waters" (Norman Maclean)
Name: Neville Morgan Barry
Duration of Unit: 10 weeks
School: Somerset High School
School City and State: Somerset, Massachusetts
Number of Lessons: 1 English, 1 Environmental Biology and 1 History
Subjects: American Literature, Biology and American History
Related Subjects: Economic and Political issues
Grade Level: 9th and 10th grade College Prep and Honors students
Date Submitted: August, 2006

Short Abstract of Curriculum Unit (3-6 sentences):

Water is more precious than gold, and without water life will perish. This uncontrollable thirst has created wars between friends; and since the beginning of mankind, water has become one of the most symbolic concepts in Literature. For instance, this need for liquid gold is constantly portrayed in the Bible, the news, and every day discussions. Thus, the battle for water has reached biblical proportions and the question needs to be asked: If the United States is currently dealing with a 60% drought, what will it take to awaken Americans to the idea that the glass is now empty?

List of Reading Materials:
1. A River Runs Through It, and Other Stories by Norman Maclean
2. Walden and Civil Disobedience by Henry David Thoreau (Introduction and Notes by Jonathan Levin)
5. http://www.fallcity.org/Walking%20Tour.pdf (a walking tour of Fall River, possible field trip?) or http://www.fallcity.org/history.html
9. Students’ History and English books

List of Equipment:
1. Over-head projector
2. TV/DVD
3. Biology Equipment: thermometers, petri dishes, microscopes, etc.
4. Garbage bags
5. Journals, chart paper, markers, crayons, and other writing utensils

Special Notes:
This unit is a work in progress. Unfortunately, I will not be able to provide all the details for the Environmental Biology and Urban Ecology section, because the other teacher and I will not
complete this section until the beginning of the 3rd Quarter (the winter of 2007). We will then revise it during the summer of 2007, since we hope to teach it as an elective for 9th and 10th graders during the 2007-2008 school year. We are also in the process of writing a grant for this unit, and depending on whether we receive it or not, we will not know the full extent of this course until the winter of 2006. Finally, this attempt to combine three subjects: Biology, English, and History depends on our Departments; however, we fully believe that we will receive their full support.

Overall Goals and Objectives:
With each lesson there will be goals and objectives for that day's work.

- Students will learn to appreciate the power of water (such as water used for generating electricity for mills and water acting in cell functioning).
- Students will learn about the history of the Taunton and Queqechan River.
- Students will learn that a river can divide and connect a community. For instance, until the 1940's Somerset and Fall River were united; however, as Fall River became less economically influential, the river now separates the rich from the poor.
- Students will learn how to observe the River and their community. To do this, Thoreau's writings will be discussed before students make their observational notes of the River and the Somerset community.
- Students will read A River Runs Through It and learn how a river can connect a family and how the river/Nature can enhance a person's life.
- Students will become more aware of their environment and hopefully steward their "place", with the overall goal that they will maintain their community through volunteer activities.

Grading:
At this time, I am unable to provide the grading system for the Biology section. For the 2006-2007 year, we will have separate grading policies, because the students will be in two different classes. However, for the 2007-2008, if this class becomes a 9th and 10th grade elective, we will become team teachers, and the grading will be combined. As for my class, students are graded as following:

- 25% for essays—these are tests. All tests are written essays.
- 25% for quizzes
- 25% for homework
- 25% for class discussion. This includes coming to class prepared and ready to learn.

Depending on the level of the students, I will modify this grading policy. If I discover a topic that interests my less motivated students, I will allow them to be more creative (e.g., drawing the river and adding personal daily poems—instead of daily quizzes).
Lesson Plan 1 - English (“Solitude”)

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Lesson 1 - English

"Solitude"

3 class periods: 54 minutes each

Abstract:
Solitude is needed to regenerate one's thoughts and to digest and contemplate daily events and discussions. Today's students do not have this tranquility. Thus, they shall practice quietness, patience, and then reflect about what their inner-voice has stated to them.

Goals and Objectives:
• Students will read "Solitude" chapter from Walden to understand how Thoreau used solitude as a method to observe his surroundings.
• Students will then use their 5 senses and observe their environment. To do this, students will pick a place along the river and sit/walk in the environment and simply listen and observe their area. (However, they will mostly likely discover that to be quiet is almost extinct).
• Students will create a journal of their solitude experiment. They may draw, create a collage, or simply write. However, they will be required to write approximately 3 pages.

Lesson: Please note: this observations will take 3 weeks, 1 hour per week, but the discussion of Thoreau's "Solitude" will take two to three class periods.

With the onslaught of technology, students have less and less time to experience solitude. To encourage quietness and tranquility, students will be required to spend a minimum of 3 hours along the river bank. If they are unable to find a safe location along the river, they may simply sit/walk their backyard, parks, etc. Along with observations, they must use their other senses and describe what they feel, touch, and hear. They must then record this information in their journals. As part of their English grade, they will also incorporate a Biology lesson. This section will be taught by the other teacher and might include sketches of plants, categorizing certain trees and plants and other activities.

Before they begin their 'solitude' activities, students will be assigned "Solitude" chapter from Walden. They will enter the class with their reading and homework completed and then a discussion will be followed. For homework, the honor students will answer 10 open-response questions. These questions will be worth 3 points each and will be graded as 2 homework grades. (All answers must have a quote). For the college prep students, the assignment will be modified. Instead of 10 questions, they might have only 7.

After students have completed this assignment, the reading, and observation, we will then discuss how solitude affected their daily lives. For instance, "did the calm of having to do nothing except walk and sit make you feel less jittery?" or "was there no silence because you always heard noises in the background?" With these questions, I hope students will gain an appreciation for simply listening to their own inner-voices without external stresses.
Lesson Plan 2 - History
(The History of Somerset and Fall River and current issues that affect them both)

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Lesson 1 - History
The History of Somerset and Fall River and current issues that affect them both
2-3 class periods (54 minutes each)

Abstract:
What is a river to a student that does not see it, although he/she drives over it almost daily? With this question presented to the students, they will then discover that they have been passing a world that will no longer be in the darkness to them.

Goals and Objectives:
• Students will discover the rich historical past of what it took to create Fall River. They will focus on the Queqechan River, a Wampanoag name believed to mean "Falling River," after the falls that were once visible on the Taunton River.
• They will discover how Somerset and Fall Rivers were once a nexus of economic development.
• Students will understand the social and economic problems that face both Somerset and Fall Rivers, and that without the combined strength and resources of the town and city, some issues might not be corrected. For example the LNG (liquid nitrogen gas) project that could destroy Fall River and Somerset due to leaks.
• Students will learn the important thematic issues in A River Runs Through It.

Please note: Before the lessons will occur, students will be given Internet packets about Fall River and Somerset. The students will be required to read the packets at home. Class discussion (for approximately two class periods) and quizzes on the readings will follow.

Lesson: As 4th Q progresses, students will be reading A River Runs Through It. By the time this lesson has begun, students will have completed this short story, and it will be incorporated into the lesson(s) about how the Taunton River does or does not divide the communities of Somerset and Fall River. This will take approximately 3-4 class periods. For the short story: The theme about how a river can divide and/or connect families and communities will be discussed by using the issues that occur in the short story. Once this discussion has occurred, then a discussion about how the Taunton River separates a rich community (Somerset) from a poor community (Fall River) will occur. The actual Lesson will be divided into three parts: First, students, many of whom have family in both Somerset and Fall River, must create 10 questions about what it is like to grow-up in each area. Once they have created these questions, they must interview a family member (or an adult) from each town/city. Along with these questions, they need to ask the family/friend, why is that many people leave Fall River to live in Somerset? Second, students will write a 1-2 page essay that focuses on the reasons why they ignore that Taunton River. For instance, some students might state that the river is too polluted to swim in, so who cares about it? Third, students need to give a 5-10 minute presentation on parts one and two, and they must include a discussion of how the short story is either similar and/or different from the issues that face the Taunton River, their community, and their own lives.
Lesson Plan 3 - Environmental/Urban Biology

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Lesson 3 - Environmental/Urban Biology
The environmental issues that affect Somerset and Fall River
3 class periods (54 minutes each)

Abstract: The Biology teacher will take the students on walking field trips of the Taunton River. As they "saunter," students will perform basic experiments and discussions about urban ecology. Before students participate in this field, they will read "Spring" chapter of Walden (in my class). This reading will provide information on how Thoreau recorded data about the pond. This same type of careful data recording will be used during the students' field trip. (Students will also conduct their research throughout the 4th Quarter: April-June).

Goals and Objectives:
• Once students have completed "Spring," they will realize the importance of accurate data.
• Students will observe the ecological destruction along the river bank, such as pollution and erosion.
• Students will observe the basic wildlife in and along the river. (Handouts about animal, bird, insect, and fish wildlife will be given).
• Students will perform basic soil and pH tests to determine how "healthy" the river is.
• Students will use petri dishes to determine what type of bacteria, etc. grows in the river.
• Students will write a final research paper.

Please note: This lesson is the accumulation of roughly 10 weeks, and the final project will include a portfolio. This portfolio will include all their work from both the Biology and Literature classes.

Lesson: The Biology teacher will take the students to the Taunton River for a final time, and they will collect their last samples, etc. The teacher will discuss the final steps on how to do a research paper. This will include how to do the conclusion and discussion sections. To do this, the teacher will have the students organize their portfolios into three sections: "what they observed," "what they tested," and "what they learned." He will then take them through the steps of how to write the conclusion and discussion. Their final paper will be roughly 5-8 pages long and will include any drawings (of birds, plants, and animals), and they will also have a section about what they did or did not like about this 10 week portfolio project.