**NOTICING**

Sharon S. Harris, NEH Steinbeck Institute 2013

Mother of Mercy High School, Cincinnati OH

**Details**

 Title of text: various passages from *The Grapes Of Wrath*, *Of Mice And Men*,

 *The Log From The Sea Of Cortez*, *Cannery Row*, *East of Eden*, as well as,

“Noticing: How To Take A Walk In The Woods”, Adam Frank, April 12, 2013, National Public Radio

(<http://www.npr.org/blogs/13.7/2013/05/14/178467726/noticing-how-to-take-a-walk-in-the-woods>),

“The Roots Of A Naturalist”, Jane Goodall, Smithsonian, March 2013 (<http://www.smithsonianmag.com/science-nature/Jane-Goodall-Reveals-Her-Lifelong-Fascination-With-Plants-192136911.html>),

“Modern Science And Our Sense Of Wonder”, Marcelo Gleiser, June 12, 2013, National Public Radio (<http://www.npr.org/blogs/13.7/2013/06/11/190655413/modern-science-and-our-sense-of-wonder>)

 Grade Level: 10, 11, 12 Biology, Environmental Science, English, Art

 Title of Lesson: Noticing

 Objectives:

1. Students will recognize they are scientists.
2. Students will use scientific observational tools to describe a given plot of land.
3. Students will compare and contrast their descriptions with those of their fellow classmates.
4. Students will imagine the descriptions of place in the works of John Steinbeck and they will illustrate their interpretation of Steinbeck’s words.
5. Students will analyze the role of place in their lives.

**Overview**

In a National Public Radio broadcast (“Noticing: How To Take A Walk In The Woods” April 23, 2013) the author, in reference to our busy lives, states that people go through life without taking time to stop and smell the roses. The author believes Joseph Campbell says it best. “People say that what we’re all seeking is a meaning for life. I don’t think that’s what we’re really seeking. I think that what we’re seeking is an experience of being alive.” The article recognizes that science is “all about noticing” and suggests that even without that degree in chemistry or biology, “You already are a scientist.” Using this article as a foundation piece, students analyze what Steinbeck ‘noticed’ when describing place in selected pieces of his work. Additionally, students make their own observations throughout the year on a carefully measured plot of land to illustrate the changes that occur with shifting seasons, lunar cycles, and differing weather patterns.

**Procedure**

1. Students read the following:

“Noticing: How To Take A Walk In The Woods”, Adam Frank, April 12, 2013, National Public Radio

(<http://www.npr.org/blogs/13.7/2013/05/14/178467726/noticing-how-to-take-a-walk-in-the-woods>)

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1. Students discuss the role of observation in their everyday lives (watching for pedestrians while driving, enjoying the aroma of the coffee shop, etc.) and in scientific discovery (penicillin, Hale-Bopp Comet, etc.)
2. Students make general, eye-level observations while slowly walking through a plot of land (usually their backyard or a local park). They must use all their senses (Da Vinci’s sapere videre, the metaphorical ‘knowing how to see’). Feel the bark of trees. Listen to the insects and birds. Smell the flowers. They include trees, shrubs, flowers, buildings, larger animals (squirrels, birds), and any other item they ‘notice’. Photos are taken and uploaded to a class-specific site. Maps are drawn. Observations are documented in a composition logbook dedicated to this project.
3. Throughout the year, students take similar walks with purpose. One time they look for tracks in the snow, another time they concentrate on which trees loose their leaves first. On the new buds of the trees or the birds that visit in a given amount of time or the insects they find under rocks and on flowers, shrubs, and on the bark of trees. They sit, with eyes closed, and just listen. These are planned and scheduled in advance (except the snow walk which is a spur-of-the-moment snow-day exercise). All ‘walks’ are documented in their composition logbooks dedicated to this project.
4. Because the larger activity (described in #3 and 4) is a yearlong process, throughout the school year, students are introduced to descriptive paragraphs written by John Steinbeck (someone who, like them, is not considered a scientist but paints a picture of the sights, sounds, and smells of people and places). These selections are introduced during specific content presentation (e.g. a discussion of tide pools would be included in a biology class discussion on communities or an environmental science class discussion on the effects of pollutants on tide pool communities or in an art class on drawing). The following activities are part of these readings (the use of one activity over another is at the discretion of student or teacher). Suggested readings include:

*The Grapes of Wrath* Chapters 1, 3, 11, 21, 25, 29;

*Of Mice And Men* the 1st two paragraphs, page 84 “One end of the…humming and lazy and warm” Penguin edition 1993, page 99 - 100 “The deep green pool…from side to side” Penguin edition 1993;

*The Log From The Sea Of Cortez* Chapter 11 page 77, 100, 165 - 166, 198 – 199 Penguin edition 1995;

*Cannery Row* page 1 – 3, chapter 6 (paragraphs 1 – 3 “Doc was collecting…like a sad and patient bull”), chapter 13 (paragraphs 5 and 6), chapter 15 (page 92 – 94) Penguin edition 1992;

*East of Eden* Chapter 1 [1].

* 1. Read a passage and draw what you think Steinbeck saw, heard, smelled, felt. After, compare to actual photographs of the places.
	2. Read a passage and create a Found Poem. Read to the class.
	3. Discuss in small groups or as an entire class, the role of Steinbeck’s description in setting place (*Cannery Row* introduction). How does this description affect the reader? Do you want to read more? Are you curious about this story? Watch the beginning 5 – 10 minutes of “Clash By Night” (1952, RKO Radio Pictures) and discuss if the film is an accurate visual account of the canneries as described by Steinbeck. (If time allows, read the novel as a class).
	4. Choral Script a passage. Perform for the class or create an iMovie.
	5. Read about the tide pools in *The Log From The Sea Of Cortez*. Students look up the organisms collected or described and make drawings and answer questions.
* Where, in a tide pool, would you find these organisms?
* How do they arrange themselves vertically?
* Compare these organisms to pelagic forms of invertebrates (teacher provides materials)
* How do they differ? How are they similar?
* What environmental pressures affect each group?
* What influences where a particular organism is found in the tide pool or the pelagic zone?

Students then create a Pelagic Postage Stamp to commemorate their favorite pelagic organism and include the following on the back of their design: scientific name of the organism, where it can be found, and at least two interactions with other members of its community. Students may also choose to produce a play or iMovie that includes the organisms discussed in one of the tide pool passages and that illustrates the complex interactions of the community members.

1. Students write a culminating well-crafted essay on the importance of place, describing what they learned about place during their walks and through the given readings.

 **Assessment**

 Each activity is autonomous and is graded separately.