

Activity name: Foul Fields Afoot

Did you ever stop to think that it might be hazardous to your health simply to write down what you are seeing as you make observations? It can happen. Although one strategy in a Phase I environmental assessment of a property involves researching government records to learn about the property's history and its uses over time, another strategy is to make observations at the property itself. If the research phase indicates the possibility of chemical contamination at the site, then what does that tell you about your procedures when you go to the site to record your observations? As you perform the following activity, pretend that the site presents enough potential danger that your observations must be from outside its boundaries.

This activity is meant to provide a real-world application of the math, science, technical, and critical thinking knowledge and skill concepts identified by ATEEC Fellows as necessary preparation for environmental technology occupations.

Appropriate for which course(s)?): High school and college Lab Sciences.

Concept/skill learned (i.e. from K/S Tables) : Diagnose problems from a set of data and observations; identify solutions; identify, assimilate, integrate, and evaluate information from diverse sources.

Approximate time to complete activity: 3 hour on-site field trip plus 2 class periods for follow-up reports

Source of idea or activity (for published source, please include author, title, publisher, date): Unknown

Materials/resources needed (equipment, print media, electronic media, videos, supplies, etc.):

Notebook, Writing instrument, Still camera, Video camera, Film, Blank videotape

SCANS skills addressed:: Apply basic communication skills, make decisions, acquire and evaluate information, interpret and communicate information, participate as a member of a team, apply technology to a task.

Learning objectives - Students will be able to:

The students should be able to:

- Describe the physical appearance of the site (exterior and interior, if possible).
- Determine the past uses for the site.
- Interview two neighbors to obtain additional information about the site.

- Determine potential obstacles to future use of the site.
- Determine potential positive assets of the site.
- Given the history of past uses for the site, hypothesize what potential contaminants might exist on the site.
- Describe the site's location in, and relationship to, the surrounding area.
- Prepare a recommendation for future use of the site, detailing how identified obstacles are to be overcome.

Description of Activity:

The class participates in a field trip to a brownfield site (e.g., abandoned warehouse, gas station, factory, agricultural property*). Students gain valuable first-hand experience that should add a sense of relevance to future activities. The students write their observations and support their observations with still and video cameras. (Make sure to obtain permission prior to entering private property.)

After the site visit, the students prepare a clearly written report. They also prepare to share their report with the class and participate in a class discussion. (Extension: Have the students write their report from the perspective of a stakeholder in the community; e.g., a government official, a concerned citizen, an environmentalist).

Evaluation of the students' performance will be based on their ability to:

- Write a clear, concise, and objective report, including the 8 points listed above in description of activity.
- Provide photographic evidence that demonstrates the points.
- Use appropriate scientific terms.
- Describe the application of all related scientific principles.
- Demonstrate a good understanding of the situation.
- Participate in the class discussion.

Activity submitted by Dennis Robeson

Return to <http://www.ateec.org/> > Learning Resources > Instructors > Environmental Tech Activities