

Northeast District & The Office of Environmental Education



SEMESTER@DEP Portfolio

Irene Roundtree

As a participant in the SEMESTER@DEP program the participant was asked to complete the attached portfolio pertaining to the program. The portfolio was due on the last day of employment with DEP.

SEMESTER@DEP participant information:

Name ***Irene C. Roundtree***
School ***Lake Shore Middle School***
Grade ***7th Grade***
Subject ***Comprehensive Science***
Years working as a teacher ***10***
Location of SEMESTER@DEP experience ***Northeast District***
Supervisor's Name ***Patrick O'Connor and Jodi Conway***

The Office of Environmental Education funded a SEMESTER@DEP program as part of the L.I.F.E program. The program exposes science teachers to field experiences. Working side by side with Department Scientists, these teachers gain valuable real world field experience that will expand their repertoire of teaching tools.

The SEMESTER@DEP employee should, use a narrative approach to describe their experience in this program by responding to the following questions. Please attach photos where possible.

Before internship:

QUESTION: What do you hope to gain from the DEP experience?



I hope to gain from the experience with DEP more knowledge. I have never met real scientists before this experience. Meeting these people and having the opportunity to interact out in the field and in the lab are educational to me. I will use what I have learned at DEP in the classroom to direct my students. This opportunity to interact with scientists, environmental engineers and other environmental specialists will enable me to find ways in which to encourage students to nurture or hone science skills.

During the effort -

QUESTION: How did the hands on approach to learning science differ from book learning?

The hands on approach to learning is different from book learning because only reading from the textbook and answering questions can never take the place of using your senses to finding solutions to a problem.

QUESTION: What lessons can you take back to the classroom?

The lessons that I will be able to take back to the classroom will include how wastewater is treated and how our drinking water treatment differs from our wastewater treatment.



A view of a Wastewater Treatment Plant from the outside

QUESTION: Describe a field experience you enjoyed this week.

The week of June 6th through June 10th I enjoyed going to two separate wastewater treatment facilities and seeing how they operate.

The first plant serviced a small community; the Royal Court South trailer park and the other serviced the huge Atlantic Beach community.

On each site, I observed a group of environmental specialists to include Patrick O'Connor -Environmental Supervisor, Kathleen Gerard – Environmental Engineer, and Chet McGhee – Environmental Specialist 3, Brett Starling – Florida Department of Law Enforcement, and John Fontnot – Florida Rural Waters evaluate the inner workings of the facilities. The state of Florida requires that these facilities meet the operation standards.

The DEP employees all focused on their particular jobs. Brett staked out the woods so as to determine if anything illegal was being done. John inserted a line into a pipe that has a camera attached to determine if indeed there was residue left on it. The presence of residue would indicate that sewage had been released in the nearby neighborhood. I observed Kathleen explain to the managers of the facilities how to assure that the standards are met. Patrick explained to me that there had been some violations cited by the trailer park facility and that they were to do a follow up inspection to assure that the violations were corrected and that no further violations were found.

QUESTION: What did you learn from your SEMESTER@DEP experience?

I learned that although a facility may not have the same eye appeal as a more sophisticated or updated facility that does not determine if it actually got the job done! As the old adage says, “looks can be deceiving.”

In the smaller facility that serviced the trailer park, the wastewater treatment facility seemed antiquated. It looked like a clip from a horror movie. However, after discussing it with Kathleen, she explained that it still met the requirements. She expressed that other than the fallen leaves and branches from nearby trees, the facility was okay. There was however, a foul smell around the facility, which made me wonder how the residents could live as close as they do.

I also learned that the Atlantic Beach Waste Water Treatment Facility is one of the best-operated facilities in the Northeast Florida district. There were homes nearby. There wasn't a foul smell as we approached the facility. This is an indication that things are being done properly. The

grounds were kept in a clean and well-organized manner. It had good eye appeal. The operators seemed to be comfortable with us being on the grounds. The operators seemed knowledgeable of the operations and they enjoyed sharing their work with us.

I actually got to see the wastewater going through the treatment process. It was disgusting! A Mr. Spencer - Operator of the Atlantic Waste Water Treatment facility explained to me how much they depend on the microorganisms (bacterium/scavengers) in the treatment process. I also learned that the Atlantic Beach facility has a pond that has fish (Tilapia to be exact) in it. This pond contains the end product (clean water) of the wastewater treatment process.



Wastewater during part of the treatment process

Question: Describe a field experience that taught you something about yourself.

I joined Sharon Evans, a biologist, and Amanda Sigman, an Environmental Scientist, on a water sampling trip. We took the DEP boat. I was afraid of the water but the two made me feel safe and comfortable.

They took samples of water quality and I got to use a YSI to help them measure the temperature, level of dissolved oxygen, pH and conductivity. The conductivity helps to tell you how much salt water is in the area.

Not only did I face my fear of the water, but I learned a lot about the St. Johns River.

Upon completion of the program:



QUESTION: Overall, what did you think of your involvement in SEMESTER@DEP?

I thoroughly enjoyed the time spent at DEP. The employees were very hospitable and eager to assist. They made the time that I spent at DEP a pleasant experience.

QUESTION: Will you be able to use your experience to enrich your student's learning experience, if so, how?

Yes, this opportunity to interact with scientists, environmental engineers and other environmental specialists will enable me to find ways in which to encourage students to nurture or hone science skills.