

American Proteins Teacher Exchange Program

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July 21 – 25, 2008

Activities Observed:

Lab Activities :

Sample collection for analysis.

Data collection and analysis involving the following:

- titration, oxygen probe, pH probe, use of a fume hood, cleaning and organizing lab equipment, cooperative learning/training, measuring, pipetting, microscope observation, TSS, COD, nitrate and nitrite analysis, and the use of multiple types of lab equipment.

Simple math calculations.

Use of Excel spreadsheet.

Handling maintenance issues and problem solving.

Random acts of kindness and a sincere concern for others.

Skills I teach that I observed in the workplace:

Many lab activities and operations used at American Proteins Inc. are taught in our biology lab settings. Safety and organization is a primary concern in the labs I observed as well as the biology lab at the high school level. The use of pipettes, metric measurements, the centrifuge, and probe ware are some common lab activities I observed. Knowledge of the nitrogen cycle involving nitrogen fixation is taught in the biology curriculum and used in the waste water treatment facility.

What I learned about the world of work outside the education arena:

The degree of job satisfaction I observed surprised me. The workers at American Proteins are very satisfied with the workplace and the job they perform. They may not be at the highest rank but they see the importance of the job they perform and some prefer not to be promoted to a higher level because of the increased stress, responsibility and worry associated with a promotion. Several of the workers expressed satisfaction with their supervisors because they were straight forward with them, they appreciated being "told like it is". Each one I observed had a good work ethic, they were treated as valuable employees and were concerned with being productive and an asset to the company.

How will this experience help me in the classroom?

When I first started teaching I would encourage all of my students to take the highest level of each class they could and work toward college degrees. After teaching several years and my experience at American Proteins, I realize there are many roles in the workplace that do not require a college degree. Also, many workers are satisfied with the jobs they have if they feel valued as an employee and are treated fairly. After participating in this program, I can encourage my students who are not college material to consider many other options available to them. They will also be able to see practical applications of the topics and skills taught in biology class even if they aren't preparing to go to college.

How will my students benefit?

Many times students ask why they need to know certain things, they may ask "Why am I learning this, I'm not going to college?". My experience at American Proteins has helped me to see that many skills we use in the classroom are used in the workplace by all workers, even those who have had no education after high school. Not only do they need to know basic math skills, data analysis, graph interpretation, etc., they also need to be able to cooperate with others and share responsibilities to accomplish goals. These are important lessons that are used in the workplace and can be taught in the classroom.

What would I change about the program?

I understand this program has been shortened this year from two weeks to one. I believe this was a good idea. The five days I have spent at American Proteins has been enough for me to gain an understanding of the plants' operations and employees responsibilities.

I would suggest each teacher research the company before attending for the week. This background knowledge can be very helpful in fulfilling expectations.

Would I recommend this program to others?

Yes, this experience has been very positive and educational. It has cleared up many misconceptions I've had about the workforce outside of education. It is a great way to link the classroom to the workplace and expose practical applications of the skills taught in school.