ECOTEK visits BASF Engineering Plastics Compounding Facility

Wyandotte, MI - 15 Students from the Detroit based ECOTEK program made a field trip to BASF Engineering Plastics in Wyandotte on February 15th. The students took a tour of the Engineering Plastics Compounding facility and concluded the day with an overview of the material and application innovations BASF has developed to help reduce weight and costs at the automotive OEMs.

The students that attended the BASF field trip were primarily from Detroit Edison Early College High School (DEPSA), a partner school of the ECOTEK Science Program. These students are actively working on a project to understand how plastics can be made from environmentally friendly feedstocks. They also are examining ways to improve recycling process for plastics. To encourage the learning process, each student was required to make plastic using an organic feedstock and come up with a way to increase the degrading process. As a group, the DEPSA students also presented their work to the DEPSA Early College executive board.

Students that attended the BASF Tour include:

Amber Young
Detroit Edison PSA

Andrew Jackson
Detroit Edison Early College

Briana Young
University Prep Science and Math High

Chandler Harris
Detroit Edison PSA

Jazzmin Ford
Detroit Edison PSA

Evan Morton
Detroit Edison PSA

Emmanuel Jefferson
Detroit Communication and Media Arts High

Felicia Smith
Detroit Edison Early College

Kai Pitts
Detroit Edison Early College

Malik Jarvis
Detroit Edison Early College

Michael Burnette
Detroit Edison Early College

Omari Chapman
Detroit Edison Early College

Marcus Cannon
Detroit Edison Early College

Teyona Dunn
Detroit Edison Early College

Dhareus Franks
Detroit Edison PSA

The SPE Detroit Section has provided funding and mentorship for two ECOTEK projects over the last year......the use of bioplastic in sporting equipment and use of bioplastic in the medical industry. Each project initiated by ECOTEK includes project goals, milestone targets, a project manager or science teacher (Keith Young - ECOTEK), student scientists and SPE Detroit Section project mentors (Jim Keeler - A. Schulman, Sandra McClelland - Chevron Phillips and Tom Miller - BASF). Through hands-on experiments and field trips, ECOTEK student scientists learn about how plastics are used in the market areas centered around their project. At the end of each project, the students prepare a research report, PowerPoint presentation, technical poster and a short video of the project from start to

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finish for presentation to the SPE Detroit Section Board of Directors.

In addition to the above effort, SPE has commissioned a special project with ECOTEK to help students learn how plastics can be used in the biomedical field. The students involved in this project include middle schoolers and high schoolers who have experience and an interest in both life science and material science. The project is ongoing and will conclude in March 2011. It examines the use of biomaterials in a number of areas such as implants and regenerative medicine. To date, the students have gathered basic information on how plastics are used in the biomedical field. They have also had an opportunity to visit medical product manufacturing facilities. The next step is for them to put on their "inventive thinking hats" and come up with a way to demonstrate the application biomaterials technology. *Stay tuned!*