

Uniondale High School / Cradle of Aviation Museum Sustainability & Renewable Energy Project

Uniondale High School Students to design Renewable Energy Showcase at the Cradle of Aviation Museum

Uniondale High School is implementing a Project-Based-Learning initiative with the Cradle of Aviation Museum. This is a new frontier in education that Dr. Florence Simmons, principal of Uniondale High School is determined to explore. She said, "Working directly with our community leaders our students will gain valuable experience in learning about all the benefits that can be derived from renewable energy".

This sustainability & renewable energy project is designed to aid and equip the students to succeed by developing their S.T.E.M. skills, and preparing them for the jobs of the future.

Approximately one hundred ninth and tenth grade students who attend classes at the Cradle of Aviation Museum as part of a S.T.E.M Magnet Academy will be participating in this project.

This Interdisciplinary/Cross-Curricular Project will include the Sciences, Technology, English-Language Arts, Math, Social Studies, and Business.

The Uniondale High School students are attending the S.T.E.M Magnet Academy at the Cradle of Aviation Museum through funding from Nassau Community College's GEAR UP and STEP Programs. Dr. Marilyn Monroe, the Director of Excellence in Education at Nassau Community College, has totally embraced this project and is looking to expand this type of initiative to other school districts.

The project has two objectives: to educate the students in an exciting new way while introducing them the concept of sustainability and the various renewable energy technologies. Project-Based-Learning is a way for students to develop hands on skills, and exposure to real world situations.

Teams of students will work with local business and community leaders to create a feasible sustainability plan and business model that will include solar panels on the roof, and wind turbines outside the museum.

The Cradle of Aviation Museum has retained Donovan Gordon of D. Gordon Consulting, Inc. and Harold Hamilton of Global Resurrection, LLC as the project managers. Mr. Gordon and Mr. Hamilton were also retained by Uniondale High School to coordinate with the teachers, businesses in the renewable energy industry, and organizations focused on sustainability to implement this project-based-learning initiative, while tying aspects of the project into the student's curriculum.



The students are very excited about being involved in this project. Daniel Clayton, one of the student project managers says "as students, as the next generation, it is OUR personal manifesto to assist in ushering an age where renewable energy is the source of power for the world." This project will help the students learn the processes behind the mechanics of renewable energy technologies, as well as, develop the critical thinking skills involved with Project-Based-Learning Initiatives.

Mentors for the students are being supplied by Uniondale High Schools Industry Advisory Board (IAB), co-chaired by Jeannine Maynard and Catherine Khalifa. The Industry Advisory Board is a group made up of local business and community leaders who are committed to helping the students achieve their highest potential.

The first thing the students did for this initiative was to help create a power point presentation, outlining the project, and then presenting it to school administrators and local elected officials. This was followed by a press conference at the Cradle

of Aviation Museum to which local media outlets were invited.

The students also came up with the concept for the projects logo. Gabrielle Levine, the graphics art teacher, and the lead teacher advocate had each student create a poster with a sustainability theme.

There has been good support from companies, and organizations

Aviation Museum. They will demonstrate their knowledge of sustainability, and showcase their work to teachers, parents, political, business and community leaders. This will include verbal presentations, artwork, and the application of renewable energy sources by powering appliances powered by solar panels and wind turbines that they help install.

Andrew Parton, Executive Director of the Cradle of Aviation Museum, believes the students will gain a tremendous amount of experience through this project that will benefit them for years to come. The project stands as a launching pad into the future of education. Its purpose is to effectively revolutionize classroom learning while aiding the community by bringing a clean source of renewable energy to the Cradle of Aviation Museum.

Dr. William K Lloyd, Superintendent of Uniondale School District is pleased with how this initiative is working, and is now looking to offer sustainability & renewable energy project-based-learning initiatives throughout the Uniondale school district. Other school districts are seeing the benefits of this cutting edge type of project-based-learning, and are showing interest in bringing this type of initiative to their school districts.

Mr. Gordon and Mr. Hamilton definitely believe this type of project-base-learning will benefit the students and prepare them for the jobs of the future. They are excited about the work they are doing with this project, and look forward to offering this



based on long island. We feel that more companies will get involved once they hear about the success of this project, and understand the benefits to their company. LIPA is sponsoring an energy audit of the museum. TRC will conduct the energy audit, and a group of students will shadow the auditors and learn how the museum can save energy and money. EmPower Solar is working with the Cradle of Aviation Museum on the development, and implementation of the solar energy strategy. They will also help educate the students about the benefits solar energy. Vince Capogna, Executive Director of the United States Green Building Council Long Island Chapter (USGBC - LI) has offered assistance for this project thru their schools committee. Salvatore Ferrara, Director of the Electric Training Center of Long Island and a member of Uniondale High School Industry Advisory Board, has also pledged his support for this project.

At the end of this school year, the students will host a press conference and renewable energy showcase at the Cradle of

type of project to other school districts.

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