

Delran Township Schools is hosting the First Annual Delran STEM Fair to showcase STEM Activities that have taken place throughout the school district in the 2016-2017 school year, and to highlight the Science, Technology, Engineering and Math activities that occur everyday in many different careers and businesses right here in our community.

The Delran STEM Ecosystem Alliance is a network of diverse organizations, including K-12 schools, higher education, community organizations, and businesses, working in concert to increase and improve STEM learning opportunities. The Delran STEM Ecosystem Alliance seeks to assist students to graduate with STEM knowledge, skills and applied learning capabilities necessary for success in STEM college education and careers. Aligned with the mission of the New Jersey Department of Education, the Alliance serves over 3,000 students in Delran, Burlington County by preparing them to achieve proficiency in STEM fields while supporting educators who teach STEM subjects to ensure they have access to the resources they need.

Delran was one of only four communities selected by the New Jersey STEM Pathways Network to participate in a statewide campaign to reimagine STEM learning and prepare New Jersey's future workforce for STEM fields. This initiative was modeled after *The STEM Funders Network STEM Learning Ecosystems Initiative* (http://stemecosystems.org), which is designed to promote the cultivation of STEM Learning Ecosystems in communities throughout the country.

If your business or organization might be interested in becoming a Partner with the Delran STEM Ecosystem Alliance, and contributing to this vitally important work, please contact Kari McGann, Director of Curriculum, for more information.

Thank you for attending tonight, and thank you for supporting STEM learning!

Sincerely,

Mary Jo Hutchinson & Erica DeMichele

2017 Delran STEM Fair Coordinators

Delran STEM Ecosystem Alliance Contact Information:

Dr. Brian Brotschul Superintendent bbrotschul@delranschools.org

Mary Jo Hutchinson K-12 Supervisor of Math, Business, Robotics mhutchinson@delranschools.org Kari McGann Director of Curriculum kmcgann@delranschools.org

Erica DeMichele K-12 Supervisor of Science, Engineering, Food & Consumer Science, Sustainability edemichele@delranschools.org



Science, Technology, Engineering, & Math in the Schools and Community

Monday, May 8 5:30-7:00 pm Delran Middle School 905 S. Chester Avenue, Delran



Delran Schools Student Organizations

<u>Millbridge RoboCubs</u>—Lego "habitats," two Robots, and posters highlight our students' work on the First Lego League, Jr. Creature Craze Challenge <u>*DIS Robotics</u>—Several robots will be on display with programming manuals available. Come by to learn how to program an EV3 robot and see it in action. You'll also see a completed mission in the LEGO Space Challenge program.

DMS Robotics—See our Robot complete challenges on our First Lego League Animal Allies track.

<u>*DHS Bionic Bears Robotics</u>—Watch our 18"x18" VEX Robot complete challenges on a 6'x12' playing field, including throwing game pieces over a fence and climbing a fence post!

Millbridge Green Team — display highlighting activities from this year, including the UNLESS Energy Challenge, Terracycle, and Giving Green <u>DIS Green Team</u>—presentation featuring participation in the UNLESS Contest for Energy Conservation awareness with the Philadelphia Zoo <u>DMS Green Team</u>—Solar: Is It Worth It For My Home? interactive display, Energy Sage and a special guest from Delran Green Team, Al Carp, with information about the Emerald Ash Borer. Our first 200 visitors will receive a sapling of a tree native to Burlington County!

<u>DHS Green Team</u>—Farm to Fork Event, and displays showing events from this year and innovative project details

 **DMS Rocket Club</u>—model rockets from our entry in the Rowan Blast Off Competition. Interactive—construct & launch your own paper rocket!
*DMS Water Bottle Rocket Engineering Challenge—stop by to see the engineering work taking place in 8th grade science classes!
DMS Mary B. Chiaccio Science Fair—displays of science fair projects
DHS Science Fair—displays of science fair projects

<u>STEAM Camp Registration</u>—Register in person at the STEAM Camp table during the STEM Fair for a special discount of \$20 off your first week! STEAM Camp Teachers will be around to answer questions!

*DIS Robotics, DHS Bionic Bears Robotics, and the DMS Water Bottle Rocket Engineering Challenge were all funded, in part or in whole, with generous grants from the Delran Education Foundation!



**DMS Rocket Club was funded by the Delran Middle & High School PTA.



<u>Barlow Chevrolet</u>—2017 Chevrolet Bolt All Electric Vehicle on display <u>Barnes & Noble Moorestown</u>—Interactive displays of Utopia 360 Virtual Reality 3D Headset, Sphero SPRK, and littleBits electronic building blocks

<u>DHS Tech Staff Dave Taylor</u> - 2016 Chevrolet Volt (electric car) on display

Delran Backyard Chicken Pilot/Camden County Chickens—two hens, including a therapy hen, and information on the Delran Backyard Chicken Pilot program

Delran Fire Department—Demonstration of new SCBA (self-contained breathing apparatus) units and Thermal Imaging cameras

<u>Delran Police Department</u>—demonstration of STEM Technology in patrol cars that police officers use on the job every day

<u>Delran Township Green Team</u>—Anti-idling with a Tesla electric car: the health effects of idling and showcasing cars of the future which don't idle

Delran Township Public Works —One-man leaf picker truck on display Kona Ice Truck</u>—Buy yourself a sweet treat & support STEM programs for kids! Proceeds benefit Delran's STEAM Summer Camp. Lockheed Martin—STEM interactive challenges representative of Lockheed Martin's products & capabilities, including Aluminum Boats (navy ships), Flying Hoops (Army/Navy/Air Force/Marine Corps

planes), Radar Electronics, and Electrical Engineering

NJ Department of Environmental Protection & AmeriCorps-

Macroinvertebrates (live & preserved) on display—how to identify various species and what they tell us about our water quality <u>Schneider Electric</u>—Game (with prizes!) showing how energy is used in Delran Schools & how people can save energy at home

<u>Simon & Schuster</u>—demonstration of STEM technology used in order fulfillment and warehouse/inventory management

<u>US ARMY</u>—Enter the ARMY's STEM Vehicle and combine your problem-solving abilities with ARMY technology to complete a simulated humanitarian mission