



News Release

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ECBC opens doors to STEM careers for girls

BEL AIR, Md. – Aiming to excite local seventh-grade girls about science, technology, engineering and mathematics, subject matter experts from the U.S. Army Edgewood Chemical Biological Center recently supported Project DREAM Work's Girls STEM Discovery Day at Harford Community College.

ECBC collaborated with Project DREAM Work, a middle school initiative of Harford Community College, and the Women in Defense, Mid Atlantic Chapter, to engage 30 female Edgewood Middle School students in hands-on STEM experiences.

“As the nation's principal research and development resource for non-medical chemical and biological defense, it is ECBC's mission to protect our warfighters and the nation against potential CB threats,” said Suzanne Milchling, director of program integration at ECBC. “But, it is also our responsibility to help prepare today's students for the jobs of tomorrow to ensure we have access to a pool of STEM professionals who are able to tackle complex problems through cutting-edge solutions.”

She continues to explain that “with men still outnumbering women in most STEM career fields, it is critical that we encourage the girls in our community to consider future STEM career pathways. Therefore, our community and educational outreach program focuses on developing a diverse and highly skilled STEM talent pool in our community.”

Scientists and engineers, who work at ECBC to keep our warfighters and the nation safe against CB threats, participated in this initiative to spark girls' interest in pursuing a STEM career pathway. Funded by the National Defense Education Program, they conducted two interactive workshops that reinforced the real-world application of STEM concepts.

ECBC Research Biologists Jody and Mark Gostomski revealed their subject matter expertise during a workshop lesson coined ‘Fascination DNA.’ In a laboratory setting, female seventh-graders had the opportunity to perform agarose gel electrophoresis, a common forensic technique used in DNA fingerprinting.

‘Lemon Power’ was another compelling hands-on workshop that ECBC Supervisory Chemist Mary McNally and Chemical Engineer Mark Ciampaglio provided to relay the relevance of electrical engineering in the real world. Students were challenged to design,

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build and test a circuit while using lemons, potatoes and limes as batteries.

Two additional STEM workshops included 'Soil Forensics' presented by Morgan Minyard, Ph.D. from the Defense Threat Reduction Agency's Joint Science and Technology Office and 'A Berry Full of DNA' by Lauren McNew from the Program Executive Office for Command, Control and Communications-Tactical (PEO C3T).

After the workshop sessions, Gostomski, McNally, McNew and Milchling served as lunch panelists to inform the young female audience about STEM careers in the defense community.

"Project DREAM Work's Girls STEM Discovery Day aims to prepare female students for future STEM career pathways in their backyard," said Project DREAM Work Program Director Mindy Costanzo-Romero.

"Our partnership with ECBC and WID enabled us to bring in Army scientists and engineers, who shared the rewarding nature of their careers with the girls and gave them an understanding of various skill sets required to succeed as a STEM professional."

For more information about ECBC, visit <http://www.ecbc.army.mil/>.

ECBC is the Army's principal research and development center for chemical and biological defense technology, engineering and field operations. ECBC has achieved major technological advances for the warfighter and for our national defense, with a long and distinguished history of providing the Armed Forces with quality systems and outstanding customer service. ECBC is a U.S. Army Research, Development and Engineering Command laboratory located at the Edgewood Area of Aberdeen Proving Ground, Maryland. For more information about the Edgewood Chemical Biological Center, please visit our website at <http://www.ecbc.army.mil> or call (410) 436-7118.

30

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