

**GREENWICH PUBLIC SCHOOLS**  
**Greenwich, CT**

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For Immediate Release

**GHS Students Selected For National Science and Engineering “Breakthrough Awards”**

Greenwich, CT - Wednesday, October 8, 2014 – Two Greenwich High School students have been featured as part of Popular Mechanics Magazine’s “2014 Breakthrough Awards.” According to the national magazine, the Breakthrough Awards “honor the innovators, engineers, and ornithologists most responsible for changing our world.” Published in their November 2014 issue, the magazine features the "Breakthrough Awards" annually, given to the most innovative devices, and those scientists and engineers that have dramatically changed our world for the better. The feature includes "The Next Generation: 9 Future Breakthrough Award Winners," given to only nine students nationally, selected by Popular Mechanics as the most significant breakthrough discoveries by young adults. The two Greenwich High School students are:

**Andrew Ma**, GHS junior, for his project entitled, "A Simple Method for Simultaneous Wastewater Treatment and Chemical Recovery Using Temperature and Pressure Changes." Andrew devised an innovative, two-chamber wastewater treatment reactor that would reverse the natural equilibrium of the Haber Bosch process and remove nearly 100% of ammonia and volatile contaminants, at (inexpensively) low temperature and reduced pressure. <http://www.popularmechanics.com/technology/engineering/news/the-next-generation-9-future-breakthrough-award-winners#slide-5>.

**Ethan Novek**, GHS freshman, for his project entitled, "The Creation of Tidal Power from Ocean Water Infiltrating Coastal Ground via an Innovative Tidal Barrage System." Ethan created an energy generation system to be installed below the ground and along the shoreline, to generate useable power from the rise and fall of tidal water beneath the surface of the sand. <http://www.popularmechanics.com/technology/engineering/news/the-next-generation-9-future-breakthrough-award-winners#slide-7>.

Andrew Ma and Ethan Novek are students in GHS teacher Andrew Bramante’s Science Research Seminar. Mr. Bramante said, “Like many of my research students, both Andrew and Ethan are incredibly creative and imaginative students that are able to look at society’s problems with a fresh and unreserved outlook. Both were able to take skills that they have learned, and combine them with a natural inventiveness to create these amazing innovations.”

Offering over 400 courses, Greenwich High School is committed to providing academic experiences that span the varied and multiple interests and talents of the 2,600 students. The high school’s Science program offers close to 40 courses ranging from Biology, Physics and Chemistry to Forensics, Environmental Science, and Astronomy. The Science Research Seminar provides the opportunity for students to Interact with practicing scientists; select, develop and conduct an independent research project; and develop the skills of reporting and presenting research.

Greenwich High School Headmaster Chris Winters said, “GHS is proud of the accomplishments of Andrew and Ethan. These two students, along with hundreds of others, benefit from a science research program that allows them to pursue their passions and curiosities under the expert tutelage of their teacher, Andy Bramante. We believe strongly in providing opportunities for excellence for our students. Students like Andrew and Ethan demonstrate that GHS is a school that challenges students at the highest levels.”

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