

Delaware STEM Academy -  
An Engineering and Environmental Sciences Charter School



*Engineering \* Energy \* Environment = Excellence in Education*

Department of Education Public Hearing  
**December 2013**

# Mission and Goals

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**Mission:** The STEM Academy provides a STEM-based educational curriculum to students grades 9 through 12 using engineering, environmental and energy industry concepts as a context for learning.



**Goals:**

To prepare students for college and workforce opportunities in engineering, environmental science and energy industry jobs.

To establish a living laboratory for students to understand STEM.

Create an ethically-based forum focused responsible citizenship and environment stewardship.

# Grade Configuration

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- Co-ed student population, emphasizing diversity of population
- Size: 625-650 students
  - 9<sup>th</sup> Grade (opening September 2015)- 175 students
  - 10 Grade (opening September 2015) – 150 students
  - 11<sup>th</sup> Grade (opening September 2016) – 150 students
  - 12<sup>th</sup> Grade (opening September 2017) – 150 students
- Career tracks
  - Environmental Sciences (emphasizing life sciences and energy technology)
  - Engineering (emphasizing math, engineering and technology)
  - Vocational technology and environmental sciences (emphasizing laboratory skills, mechanical engineering and operations logistics)

# What Makes Us Different?

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- Program emphasizes an underrepresented aspect of STEM - Engineering
- Project-based Learning Platform – New Tech Network
- Corporate and trades relationships provide experiential learning opportunities
- Using nationally recognized curricula, including Next Generation Science Standards
- Students will be immersed in a value system emphasizing environmental sustainability and protection of the planet



# Standards

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- **Adhere to Common Core Standards – required by the Delaware Department of Education**
  - English Language Arts
  - Math
  - Content Areas (Science, Social Studies, World Language, Fine Arts)
  - Career and Tech Ed
- **STEM Based Curriculum**
  - Recommendations STEM Council and Delaware Science Coalition
  - Work with New Generation Science Standards as basis for curriculum
  - Work with the New Tech Network as platform
- **Academic Performance Framework**
  - New charter school requirements
    - Monitors student progress over time
    - Student Achievement will be the focus
    - State and Federal Accountability
    - Post-Secondary and Workforce Readiness
- **Specialized Programs**
  - Advanced Placement
  - Gifted and Talented
  - Special Education



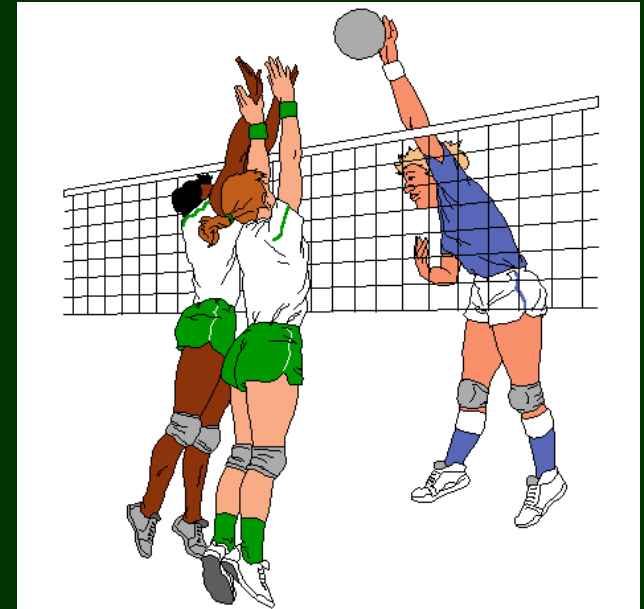
# New Tech Network



# Extracurricular Activities

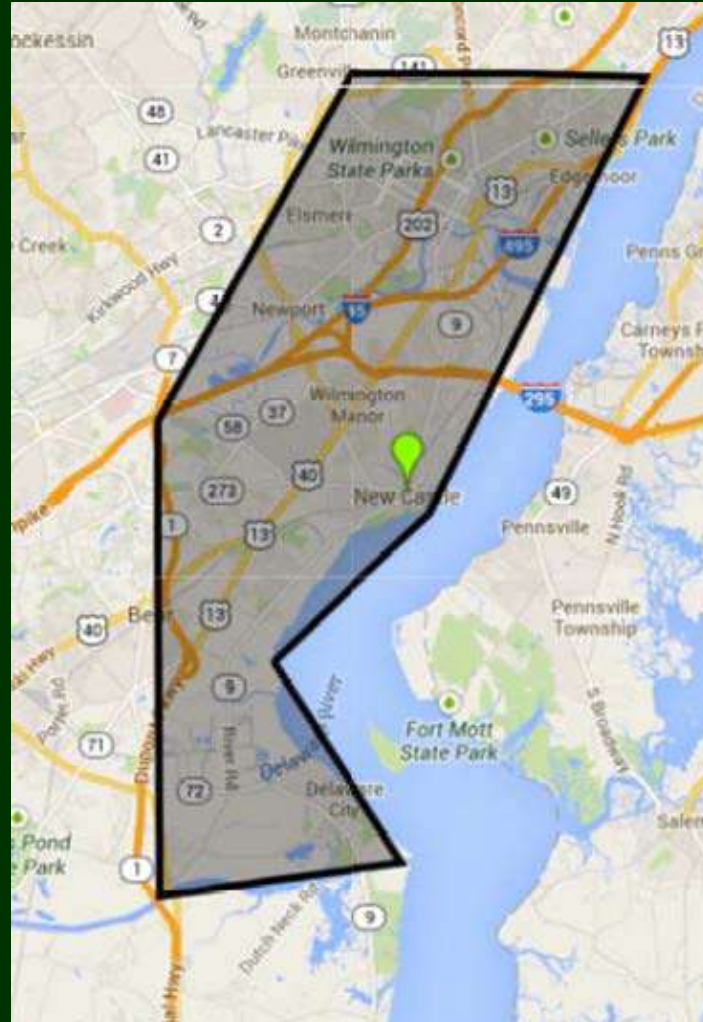
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- STEM-based laboratory, service projects, competitions and showcases
- Arts program (drama, music, visual arts including digital technology)
- Students will be encouraged to participate in clubs and outside service organizations
- Honor societies for industry disciplines
- Athletics will be phased in over five years, starting with sports not requiring a large physical plant (soccer, cross-country, lacrosse, volleyball, basketball)
- Arena space will be rented



# Proposed Locations

- Proposed areas include:
  - The City of Wilmington
  - South along Route 13 and Route 9
  - West toward Route 40
  - Southern portion of Delaware City
- Includes portions of Christina, Colonial, Red Clay and Brandywine School Districts
- Location will be determined by September 2014





# How Can You Help?

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**Letters of Support:** Organizations wish to express support for the school to the Department of Education can submit a letter of support for STEM programs in general and the school itself. Please see Brett Taylor for a sample letter.

**Survey of Parents and Students:** You can show support for STEM programs and the DE STEM Academy by participating in a survey. You can find the survey link at our website: [www.destemacademy.org](http://www.destemacademy.org).

**Pre-enrollment Letter of Interest:** You can let us know if your child is interested in attending the school by submitting the name, current grade level and areas of interest to the Delaware STEM Academy, either through our contact email on our website or emailing directly Brett Taylor [brett.taylor@destemacademy.org](mailto:brett.taylor@destemacademy.org).

# For More Information

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- Contact:

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