



# HARRISONBURG CITY Public Schools



Science Technology Engineering Mathematics



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HHS

STEM ACADEMY

Science Technology Engineering Mathematics

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**STEM**

Explorations Academy

*Skyline Middle School*

## Planning for STEM Academies

- Mission, Vision, Goals and Beliefs
- Staffing
- Technology
- Curriculum
- Application Process, Recruitment and Timeline
- Facilities
- Partners
  - Advisory Panel
  - Business Partners
  - College Partners
- Questions





# Mission



The HCPS STEM Academy program inspires and educates a **diverse group of students** by engaging them in authentic experiences in mathematics, science, and engineering that enlighten and motivate. **Problem based learning** is at the heart of the program. Students are encouraged to create and engineer in a variety of areas while becoming part of a rich **21st century learning community** that uses technology confidently, works in groups effectively, communicates articulately, and embraces real world problem solving. **Students learn in the classroom and in the field** to develop confidence as they prepare to be researchers, innovators, engineers and leaders.



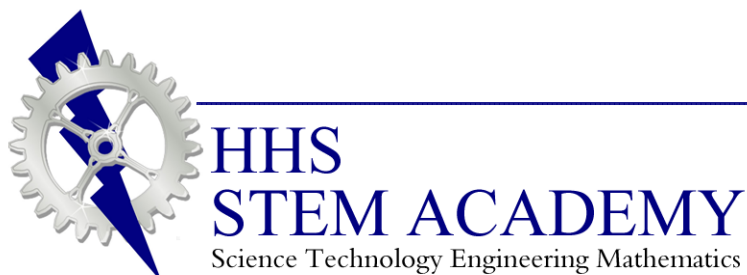
# STEM Academy Staffing

## Technology and Materials



# Curriculum

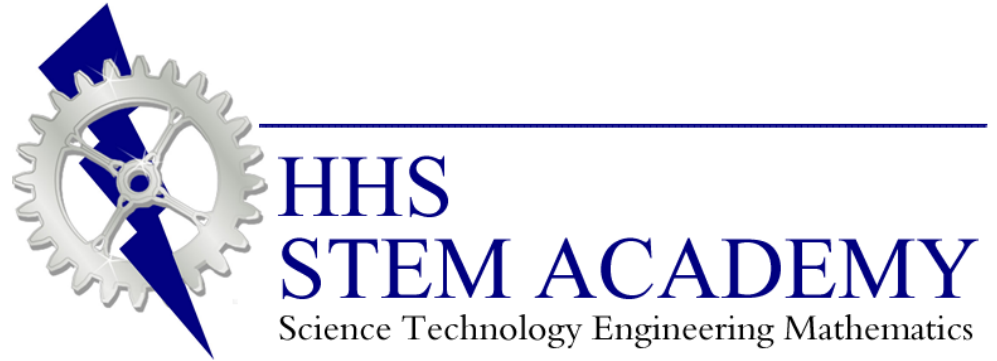




	<i>Freshman</i>	<i>Sophomore</i>	<i>Junior</i>	<i>Senior</i>
1	<b>STEM Academy Honors Algebra II*</b> <b>STEM Academy Honors Physics</b>	<b>STEM Academy Honors Pre-Calculus</b>	<b>AP Calculus</b>	<b>Advanced Calculus</b>
2		<b>STEM Academy Honors Chemistry/Earth Science</b>	<b>STEM Academy Honors Biotechnology</b>	<b>AP Science - Biology, Chemistry or Physics</b>
3	<b>Intro. Engineering I</b>	<b>Engineering II***</b>	<b>Advanced Engineering and dual enrollment GIS</b>	<b>Engineering Capstone Project/Internship</b>
4	<b>STEM Academy English 9</b>	<b>STEM Academy English 10</b>	<b>AP Statistics/AP Computer Science</b>	<b>Dual Enrollment Engineering</b>
5	Elective	Elective	Elective	Elective
6	Elective	Elective	AP English Language**	AP English Literature**
7	World Language**	World Language	World Language	Elective
8	Social Studies**	Social Studies	Social Studies	Social Studies
<i>Co-curricular</i>	<i>Robotics, TSA, TARC, VJAS</i>	<i>Robotics, TSA, TARC, VJAS</i>	<i>Junior Seminar Robotics, TSA, TARC, VJAS</i>	<i>Senior Seminar Robotics, TSA, TARC, VJAS</i>

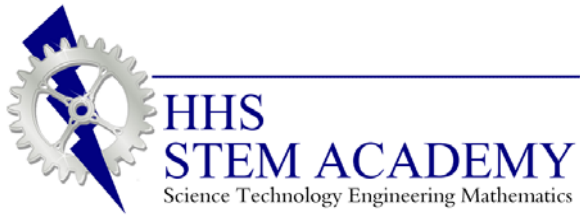


Grade	Course (CTE)
7 <sup>th</sup> grade	Engineering Design Explorations and Physical Science combination A combination of robotics, I-STEM design challenges, Community challenges or competitions
8 <sup>th</sup> grade	Green Technologies and 7 <sup>th</sup> grade Life Science combination



# Recruitment Application Timeline





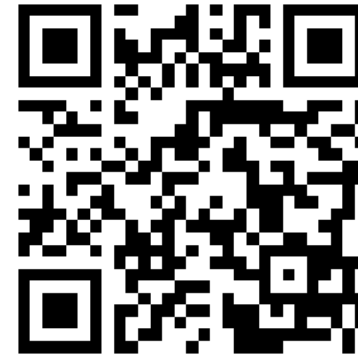
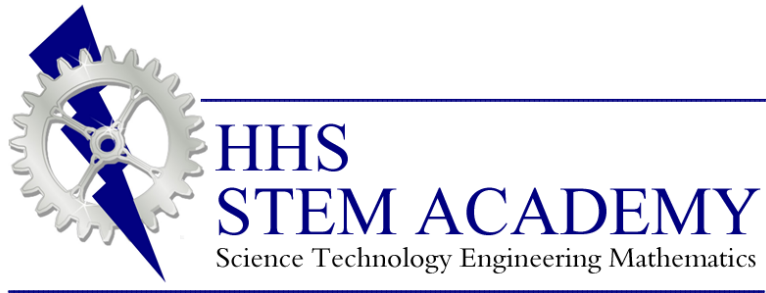
# Facilities



# Partners

- Advisory Panel
- Business Partners
- College Partners






[http://web.harrisonburg.k12.va.us/hhs\\_stem](http://web.harrisonburg.k12.va.us/hhs_stem)



[http://web.harrisonburg.k12.va.us/skms\\_stem](http://web.harrisonburg.k12.va.us/skms_stem)

Sneak Peek  
USA Science and Engineering  
Festival  
Friday April 27

<http://www.usasciencefestival.org/>



**Celebrate Science at the 2<sup>nd</sup>  
USA Science & Engineering Festival**

**Expo and Book Fair: April 28 & April 29, 2012**  
**Walter E. Washington Convention Center, DC**  
**A Free Event**



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# Questions

