

Science  
Technology  
Engineering  
Mathematics

Central Middle School

# What is STEM



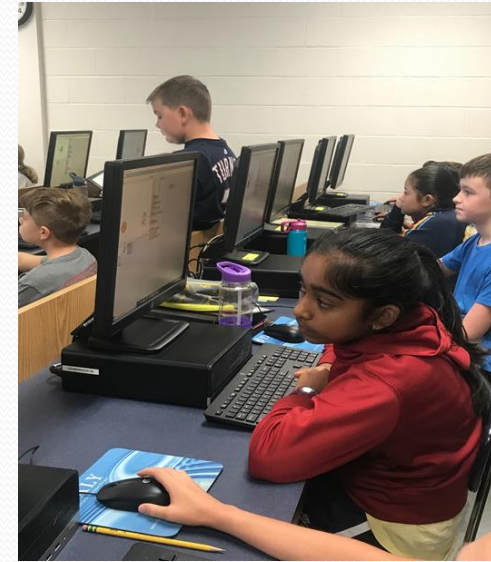
**STEM is a means of immersing the learner in the world around them in the following ways:**

- PBL- infused authentic learning
- Extended field experiences & inquiry
- Time for students to deeply **explore**, **collaborate** and **innovate**
- Tools and technology infused lessons
- Transdisciplinary experiences -Cohort
- Collaboration & Dialogue





# STEM Opportunities



## STEM Experiences

- In the Field Guest Speakers
- Purposeful Field Experiences
- Engineering – Design Challenges
- Science Systems Thinking
- Webinars in STEM Careers
- Clubs & Community Involvement
- Competitions & Contests

science • technology • engineering • mathematics

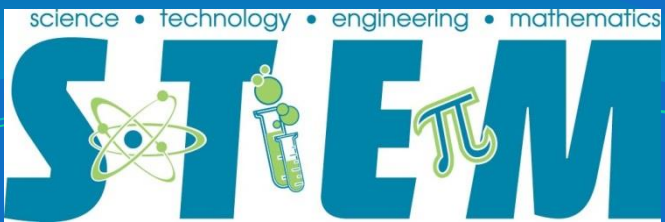


# STEM Highlights 6<sup>th</sup> 7<sup>th</sup> 8<sup>th</sup> Grades

- 6<sup>th</sup> Grade – Amphibian Adventures
- 7<sup>th</sup> Grade – Physics & Eng
- 8<sup>th</sup> Grade – Changemaker Projects







STEM Saturday Exploration

# 6<sup>th</sup> grade Schedule



Exp	Trm	Crs-Sec	Course Name
1(A-B)	19-20	C06034-9	Science 6
2(A)	S1	G06010-6	True Colors 6 S1
2(A)	S2	M06033-1	Gateway to Tech 6 S2
2(B)	19-20	L06030-4	Physical Education 6 Y
2(B)	Q1	L26040-13	Health 6 Q
3(A-B)	19-20	B06034-6	Social Studies 6
4(A-B)	19-20	D06034-3	Mathematics 6/7
5(A)	S1	D46010-3	Box Score 6 S1
5(A)	S2	X90020-1	STEM Toolkit S2
5(B)	S1	H06010-3	Healthy Life 6 S1
5(B)	S2	R26020-4	STEM Comp & Autom 1 SX
6(A-B)	19-20	A06034-4	English/Lang Arts 6(Y)
7(A-B)	19-20	X51030-3	Student Advisory

October: Jug Bay-  
Environ. Science

November: Adaptations &  
Biomimicry

January/Feb: Analytics &  
March Madness

March: Earth & Material  
Science



# Virtual STEM Program

## STEM 6 & 7

### STEM 6:

- Jug Bay Hike & BioCube
- Chemistry in the Kitchen
- HEY - Hands on Electronics for Youth

### STEM 7:

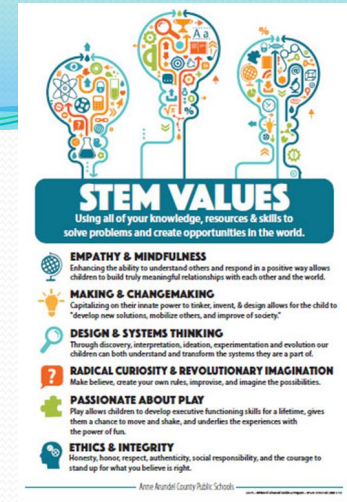
- Physics of Remote Controlled Cars
- Engineering of Physics
- Body Systems Guest Speaker

## STEM 8

- Changemaker Projects
- Computer Science Guest Speaker



# STEM Commitment



- **STEM Middle School Commitment Letter**
- **In order to participate in an Anne Arundel County School Magnet School Program, students and their parents or guardians must understand and agree to the following:**
- **General information for all Magnet Programs:**
- AACPS Magnet Programs are rigorous programs of study. To remain in the program, the student must meet high standards of academic achievement.
- The student is expected to remain in the program for the entire academic year. Students will be asked annually to recommit to their chosen magnet program.
- If a student withdraws from the program, or is not successful in the program, he/she will return to their home school.
- Bus stops will be consolidated community bus stops, based on the student population. Bus stops may not be located within ordinary walking distances and may have to be supported by private resources. Usually, the consolidated bus stops are located at a nearby library, middle or elementary school in each community.
- The support and involvement of parents/guardians are required
- All programs are contingent on fiscal approval of the annual budget.



Programs of Choice



# STEM Requirements

Clubs

- Summer Bridge (June or July)
- STEM Saturday Explorations (4)
- STEM Family Events – Deliciously Nutritious 2020
- STEM Clubs & Competitions – TSA & Science Olympiad





# Clubs – Requirement Participation for 1 Semester

## CHOICES!!!

- Drama Club (audition)
- Intramurals (seasonal)
- STEM club
- Vex (try out)
- Sea Perch (try out)
- Math Club
- TSA – Engineering
- TSA – Bio Medical Tech
- Agri STEAM Club
- Diversity Club

## CHOICES!!!

- NJArtHS (apply)
- NJHS (apply)
- Student Government
- Yearbook
- Spanish Club
- French Club (8<sup>th</sup> gr)
- Dance Company (Audition)
- Broadcast Club
- History Club
- Environmental Green Club

# Requirements for Applying

## IB, PVA, and STEM/BMAH Applicants

		Middle School Magnets		High School Magnets		
		Fall of Grade 5 (all)	Fall of Grade 6 (PVA only)	Fall of Grade 8 (all)	Fall of Grade 9 (PVA only)	Fall of Grade 10 (IB DP, only)
IB, PVA, and STEM/BMAH	When to apply					
	Final Grade Average <sup>1,2</sup> (To determine your grade average, see the back cover.)	2.5 GPA in Grade 4 No D or E in Grade 4 <sup>3</sup>	2.5 GPA in Grade 5 No D or E in Grade 5 <sup>2</sup>	2.5 GPA in Grade 7 No D or E in Grade 7 <sup>2</sup>	2.5 GPA in Grade 8 No D or E in Grade 8 <sup>2</sup>	3.0 GPA (weighted) in Grades 9 and 10 <sup>2</sup> No D or E in Grades 9 or 10 <sup>2</sup>
No more than 2 Cs* for final course grades <sup>2</sup> <b>*If you have more than 2 Cs, you must score...</b> 3 or above on the state standardized test, or 2 or above on WIDA (ESOL students, only)						
	World Language <sup>3,4</sup>	—		C or above in Level 1 or higher		
PVA only	Audition Score	6 or above		7 or above		

1. Students must maintain this average (with no D or E and no more than 2 Cs) in Grade 5 for all middle school magnet applicants, Grade 6 for PVA applicants, Grade 8 for all high school magnet applicants, Grade 9 for PVA applicants and Grade 9 and 10 applicants to high school IB DP.

2. All grade requirements need to be met through the entire year students are applying to a magnet program to remain eligible.

3. Not all world languages are offered at all magnet schools. Check with the magnet school to which you are applying (or the magnet website) to note which world languages are offered. Level 1 must be in a world language which is also offered in the magnet high school (see note #4).

4. PVA students who attend Bates Middle School will take Italian. Bates PVA students who apply to a high school IB or STEM program may be required to take a different world language in high school.



### STEM VALUES

Using all of your knowledge, resources & skills to solve problems and create opportunities in the world.



#### EMPATHY & MINDFULNESS

Enhancing the ability to understand others and respond in a positive way allows children to build truly meaningful relationships with each other and the world.



#### MAKING & CHANGEMAKING

Capitalizing on their innate power to tinker, invent, & design allows for the child to "develop new solutions, mobilize others, and improve of society."



#### DESIGN & SYSTEMS THINKING

Through discovery, interpretation, ideation, experimentation and evolution our children can both understand and transform the systems they are a part of.



#### RADICAL CURIOSITY & REVOLUTIONARY IMAGINATION

Make believe, create your own rules, improvise, and imagine the possibilities.



#### PASSIONATE ABOUT PLAY

Play allows children to develop executive functioning skills for a lifetime, gives them a chance to move and shake, and underlies the experiences with the power of fun.



#### ETHICS & INTEGRITY

Honesty, honor, respect, authenticity, social responsibility, and the courage to stand up for what you believe is right.

# Apply

- Applications open  
October-November  
<https://www.aacps.org/stem>
- Unweighted Lottery

→ aacps.org/magnet

STUDENTS ACADEMICS SERVICES SCHOOLS FAMILIES BOARD STAFF PARTNERS ABOUT US

## MAGNET PROGRAMS

- Magnets
  - About Us
  - International Baccalaureate
  - Performing and Visual Arts
  - STEM/BMAH
  - Magnet Lottery
- Transportation
- Application Timeline
- Charter School Information
- Frequently Asked Questions

**HIGHLIGHTS AND NEWS**

### IB at Old Mill High School

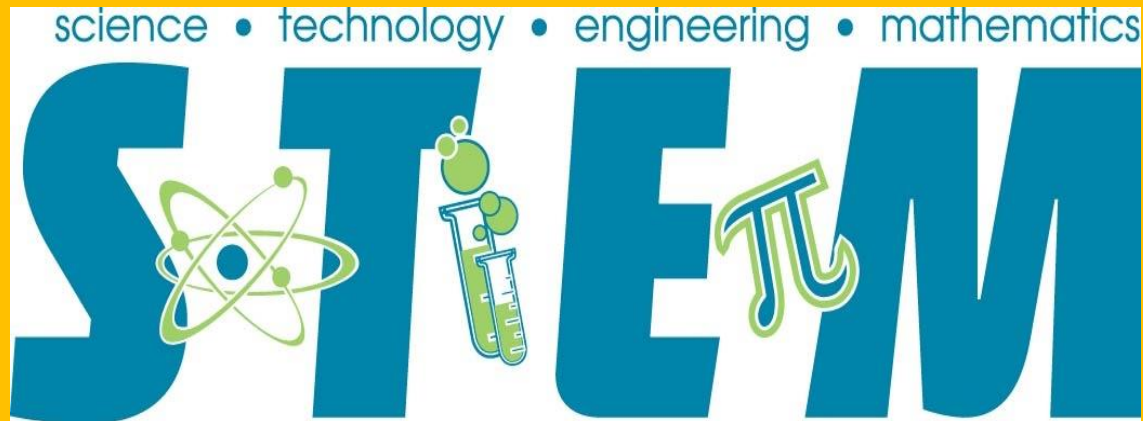
Old Mill HS Master Class with Megaron Chamber Choir from Slovenia! [Read More...](#)

**FALL 2019 INFORMATION SESSIONS:** Plan to attend one of the school-based events to learn more about Magnet programs and the CAT Centers. For more information, please refer to the following information fliers: [English](#) version [Spanish](#) version

CAT Centers accept on-time applications through March 15, 2020. Late applications will be processed after all on-time applications have been evaluated and in the order which they were received. Please go to [www.catnorth.org](http://www.catnorth.org) or [www.catsouth.org](http://www.catsouth.org) for additional details.

**APPLY NOW!!**

APPLICATIONS ARE OPEN FROM NOON ON OCTOBER 14  
UNTIL NOON ON NOVEMBER 26!





Questions  
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**STEM Middle School Information:** [www.aacps.org/magnets](http://www.aacps.org/magnets)

Central Middle School

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