What are you AVID about?

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 15 – 18 & July 22 – 25
SESSION LOCATION: Glen Burnie High School
Do you have a research topic that you’re really itching to investigate? Join us for an independent study based session that will allow you to dig in to your personal interests while developing organization, collaboration, inquiry, reading, and writing strategies that will lead you to success in high school. We’ll start at the beginning using inquiry strategies to drill down into your interests and what you want to know. We’ll do research, group and independent investigations, and design a way to find and present the answers you’re looking for while prepare you to take some of the most rigorous course-work that AACPS has to offer.

INSTRUCTOR: Gillian Hersh INSTRUCTOR EMAIL: ghersh@aacps.org

Throwing Your First STEM Pitch – Session B

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 15 – 18 & July 22 – 25
SESSION LOCATION: South River High School
Join us for an exciting and engaging introduction to teamwork, professionalism and presentation skills. This program asks students to work collaboratively to develop a new and improved design on a product of their choice to then pitch to a mock panel of potential investors. Leading up to pitch day, students will discover the importance of team dynamics from agreeing on a common goal to delegating tasks based on the strengths of each team member by applying models used by some of the area’s most successful tech companies. Additionally, students will build confidence executing characteristics of a strong presentation such as storytelling and connecting with an audience through role play and an improv workshop. This program is ideal for students ready to step into the spotlight and get a taste of what it takes to turn their STEM dreams into a reality.

INSTRUCTOR: Jessica White INSTRUCTOR EMAIL: jcwhite2@aacps.org

Crime Busters

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 22 -25 & July 29 – Aug 1
SESSION LOCATION: Glen Burnie High School
Interested in shows like CSI or the First 48? Join us in CRIME BUSTERS this summer and become a forensics scientist! You will spend your time diving into the world of forensics sciences! You will also look into infamous serial killers and find out why they were caught. Students will have the opportunity to learn about and complete many different forensics tests. As a class, you will apply all you’ve learned to solve a cold case and participate in a Mock Trial.
Caution: A lot of fun to be had.

INSTRUCTOR: Danielle Crosby INSTRUCTOR EMAIL: dccrosby@aacps.org
Catch of the Day

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 22 -25 & July 29 – Aug 1
SESSION LOCATION: North County High School
Students will experience fishing at various local spots. In addition to fishing, students will learn about a variety of species of fish found in this region as well as techniques used to catch them. Students will also discover their role in conserving and protecting our public natural resources. All fishing gear will be provided. No experience necessary.
INSTRUCTOR: Michael O'Donnell INSTRUCTOR EMAIL: modonnell@aacps.org

Kickin' Character Collage

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 22 -25 & July 29 – Aug 1
SESSION LOCATION: South River High School
Kickin' Character Collage will blend martial arts, fine arts and character development. First, student will be introduced to the martial art "Tang Soo Do". Additionally, students will explore how origami, kirigami and Sumi (Chinese brush painting) relate to martial arts and character development. Finally, students will experience how the martial arts and fine arts support the six pillars or character- trustworthiness, respect, responsibility, respect, fair, caring and citizenship.
INSTRUCTOR: Kathleen Orr INSTRUCTOR EMAIL: korr@aacps.org

What Lies Beneath - Session B

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 22 -25 & July 29 – Aug 1
SESSION LOCATION: South River High School
In this adventure into the deep recesses of the Chesapeake Bay Watershed, students will explore what lies beneath the surface. Time will be spent in the classroom lab and real lab (the Chesapeake Bay Watershed) using fully equipped research vessels and flat water canoes to conduct biological sampling, track invasive species, test water quality, and dredge for oysters. Additionally, students will work with field educators and scientists to investigate environmental issues and trends within the context of urban ecology setting.
INSTRUCTOR: Eleonor Nulud INSTRUCTOR EMAIL: enulud@aacps.org
Do Science or Do not Science; Is Science Fiction for real?

**SESSION DATES:** HS - Grade 9 STEP UP TO STEM - July 29 – Aug 1 & Aug 5 - Aug 8  
**SESSION LOCATION:** North County High School  
Is it Science in Science Fiction? We will be exploring different sci-fi movies and tv shows to determine the actual scientific concepts behind them. Students will be able to pull in prior knowledge and expand their thinking on real facts not just psuedo-sciences (as much as the mainstream media portrays).  
**INSTRUCTOR:** Laurin B Holmes  **INSTRUCTOR EMAIL:** lbholmes@aacps.org

**STEM: Especially For HER**

**SESSION DATES:** HS - Grade 9 STEP UP TO STEM - July 29 – Aug 1 & Aug 5 - Aug 8  
**SESSION LOCATION:** North County High School  
This course is focused on engaging and supporting females in STEM. The purpose of this course is to enhance the students research skills, interest, and self-expression through films, literature, and music. We will research STEM careers, up to date statistics, fun facts, notable women’s achievements and participation in STEM areas. We will also discuss the interest of those who are enrolled in the course in order to create our final project, a vision board!  
**INSTRUCTOR:** Leah Banks  **INSTRUCTOR EMAIL:** lbanks@aacps.org

**3D Printing & Beyond**

**SESSION DATES:** HS - Grade 9 STEP UP TO STEM - July 29 – Aug 1 & Aug 5 - Aug 8  
**SESSION LOCATION:** North County High School  
3D Printing & Beyond explores the ins and outs of 3D printing, 3D scanning, and 3D modeling. Students will work together to design and print a variety of objects, structures, and solutions for design and engineering problems, all while discovering how this amazing technology is transforming the manufacturing, healthcare, and engineering industries. Not only will students learn exactly what and how to approach 3D modeling, scanning, and printing, they will walk away with real world experience solving problems with 21st century tools and techniques. In addition to traditional approaches to 3D printing, this session will expose students to experimental rapid prototyping, including a visit to view Baltimore’s largest 3D printer.  
**INSTRUCTOR:** Jessica Ann  **INSTRUCTOR EMAIL:** jann@aacps.org
Create a game

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 8 – 11 & July 15 – 18
SESSION LOCATION: Glen Burnie High School

In this session you will work with a small group to develop a game. The game can be athletic and physical or an academic game. The groups will be required to create each aspect of the game from the set up to the rules. The groups will also need to create a smaller modified version of the game as in intro for the students to begin learning how to play. The students will then present their game to the class to play.

INSTRUCTOR: Ricky Deitchman INSTRUCTOR EMAIL: rdeitchman@aacps.org

Science in Science Fiction

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 8 – 11 & July 15 – 18
SESSION LOCATION: North County High School

Students will engage in researching real world science concepts in movies and tv shows. Debate on debunking psuedo-science and how these "facts" have had an impact on society. End project will be a choice of stop-motion or recorded drama skit emphasizing their favorite science concepts.

INSTRUCTOR: Ms. LB Holmes INSTRUCTOR EMAIL: lbholmes@aacps.org

STEM: Especially For HER

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 8 – 11 & July 15 – 18
SESSION LOCATION: North County High School

This course is focused on engaging and supporting females in STEM. The purpose of this course is to enhance the students research skills, interest, and self-expression through films, literature, and music. We will research STEM careers, up to date statistics, fun facts, notable women’s achievements and participation in STEM areas. We will also discuss the interest of those who are enrolled in the course in order to create our final project, a vision board!

INSTRUCTOR: Leah Banks INSTRUCTOR EMAIL: lbanks@aacps.org
What Lies Beneath - Session A

**SESSION DATES:** HS - Grade 9 STEP UP TO STEM - July 8 – 11 & July 15 – 18

**SESSION LOCATION:** South River High School

In this adventure into the deep recesses of the Chesapeake Bay Watershed, students will explore what lies beneath the surface. Time will be spent in the classroom lab and real lab (the Chesapeake Bay Watershed) using fully equipped research vessels and flat water canoes to conduct biological sampling, track invasive species, test water quality, and dredge for oysters. Additionally, students will work with field educators and scientists to investigate environmental issues and trends within the context of urban ecology setting.

**INSTRUCTOR:** Eleonor Nulud **INSTRUCTOR EMAIL:** enulud@aacps.org

Ethics and You- Just Academic Integrity?

**SESSION DATES:** HS - Grade 9 STEP UP TO STEM - July 8 – 11 & July 15 – 18

**SESSION LOCATION:** South River High School

If you think that ethics are just about what you hand in, you'd be wrong! What about sharing all your information? Learn how to navigate the tough questions throughout your STEM career and what to do when faced with the tough situations.

**INSTRUCTOR:** Sara McWilliams-York **INSTRUCTOR EMAIL:** smcwilliams-yor@aacps.org

Throwing Your First STEM Pitch - Session A

**SESSION DATES:** HS - Grade 9 STEP UP TO STEM - June 18 – 21 & June 24-27

**SESSION LOCATION:** Glen Burnie High School

Join us for an exciting and engaging introduction to teamwork, professionalism and presentation skills. This program asks students to work collaboratively to develop a new and improved design on a product of their choice to then pitch to a mock panel of potential investors. Leading up to pitch day, students will discover the importance of team dynamics from agreeing on a common goal to delegating tasks based on the strengths of each team member by applying models used by some of the area’s most successful tech companies. Additionally, students will build confidence executing characteristics of a strong presentation such as storytelling and connecting with an audience through role play and an improv workshop. This program is ideal for students ready to step into the spotlight and get a taste of what it takes to turn their STEM dreams into a reality.

**INSTRUCTOR:** Jenna Platte **INSTRUCTOR EMAIL:** Jplatte@aacps.org
Exploring Healthcare Opportunities

SESSION DATES: HS - Grade 9 STEP UP TO STEM - June 18 – 21 & June 24-27
SESSION LOCATION: Glen Burnie High School
This course will offer the opportunity for having fun, enjoying a little fitness, and exploring the healthcare field in a number of different ways. Participants will be able to observe one or more medical/training facilities, observing state of the art technology and equipment being utilized. Opportunities will be available to both listen to and speak with healthcare professionals as they discuss what’s happening now in the field and what’s in store for the future. A portion of most days will be spent engaged in fitness and/or sports activities, increasing awareness of how to become more physically fit and eating for the “Health” of it.
INSTRUCTOR: Melissa Schultz INSTRUCTOR EMAIL: Maschultz@aacps.org

Innovation Motivation!

SESSION DATES: HS - Grade 9 STEP UP TO STEM - June 18 – 21 & June 24-27
SESSION LOCATION: Glen Burnie High School
We will all journey to Solution Land. I believe that we all have something extraordinary in us. I want each of us to hone in on their gifted areas and come up with ideas to conceptualize into an innovation or revolution. Follow your passion!
INSTRUCTOR: Pamela Dotson INSTRUCTOR EMAIL: pdotson@aacps.org

Board Game Design and Production Lab

SESSION DATES: HS - Grade 9 STEP UP TO STEM - June 18 – 21 & June 24-27
SESSION LOCATION: North County High School
How would you like to design and build your own themed strategy board game? Come to this STEP UP TO STEM Session and learn about how to take a personal interest to the next level. You will select a subject that you are interested in learning more about and then come up with a mechanism to teach other students about that topic by creating a board game that will promote working friendly competition or working together as a team to win. Once you build your prototypes, you will play-test them to gather feedback and make necessary changes/modifications before publishing a final version.
INSTRUCTOR: Michelle Hymowitz INSTRUCTOR EMAIL: mhymowitz@aacps.org
The Physics of Music

SESSION DATES: HS - Grade 9 STEP UP TO STEM - June 18 – 21 & June 24-27
SESSION LOCATION: South River High School
Why do some things sound good and others just don't? Science has answers! We will discuss how different sounds are created, and how those sounds are made of different waves. We will also look at how those waves interact with each other and how those interactions can produce beautiful music, horrible noises, and a host of real-world applications based on sound technology.
INSTRUCTOR: David Hamrum INSTRUCTOR EMAIL: dhamrum@aacps.org

Throwing Your First STEM Pitch

SESSION DATES: HS - Grade 9 STEP UP TO STEM - June 18 – 21 & June 24-27
SESSION LOCATION: South River High School
“Throwing Your First STEM Pitch” is an exciting and engaging introduction to teamwork, professionalism and presentation skills. This program asks students to work collaboratively to develop a new and improved design on a product of their choice to then pitch to a mock panel of potential investors. Leading up to pitch day, students will practice their presentation and storytelling skills and discover the importance of team dynamics in turning their STEM dreams into a reality.
INSTRUCTOR: Kate Hamrum INSTRUCTOR EMAIL: khamrum@aacps.org

Be your own Bestie!

SESSION DATES: HS - Grade 9 STEP UP TO STEM - June 18 – 21 & June 24-27
SESSION LOCATION: South River High School
During this session we will focus on Empathy and Mindfulness. Learning to be resilient and learn from other people, while also learning to be your own best friend. STEM is a stressful program at times, learning skills to understand how you can be the amazing you, you are -are needed!
INSTRUCTOR: Sara McWilliams-York INSTRUCTOR EMAIL: smcwilliams-yor@aacps.org
The Great Escape

SESSION DATES: HS - Grade 9 STEP UP TO STEM - June 18 – 21 & June 24-27
SESSION LOCATION: Glen Burnie High School
The world is in danger. Something new, unusual, and scary is running rampant, devouring all in its path. What could it be? Who will be its next victim? You and your team will work to eradicate the threat and free the world. Along the way, you will discover the many paths you can take as a public health official as well as begin to learn how to Step-up to STEM: working collaboratively, critically-thinking and problem-solving, practicing professionalism and mindfulness, using play to learn and so much more! Join The Great Escape for a Great Experience.
INSTRUCTOR: Renee Beasley INSTRUCTOR EMAIL: cbeasley@aacps.org

STEM Summer Sailing

SESSION DATES: HS - Grade 9 STEP UP TO STEM - July 29 – Aug 1 & Aug 5 - Aug 8
SESSION LOCATION: Annapolis City Dock
Summer, wind, water and you... if you have never sailed and would like to learn, spend two weeks with the National Sailing Hall of Fame at City Dock in downtown Annapolis. Why can boats sail into the wind? How do you plan a course that takes you where you want to go (and back!)? Put your math and physics knowledge to the test while teaming to sail the waterways of the Severn River, Spa Creek and the Chesapeake Bay. Please note that this course is for NEW sailors only! If you have ever taken the tiller on a sailboat more than a few occasions, this is NOT the program for you.

INSTRUCTOR: Melissa Troust INSTRUCTOR EMAIL: