



March 2021

STEM NEWSLETTER

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SPRING SPORTS OPEN

Elizabeth Barker

Spring sports sign ups coming soon! Competitive sports currently offered at South River High School include Boys Lacrosse, Girls Lacrosse, Baseball, Softball, Track & Field, Tennis, and Unified Bocce. Sign ups for spring sports start Monday, March 29th, and close on April 15th at 8pm. Make sure to register through South River Family ID. Documents required for spring sport registration are available on the South River High School website.



8:30 START TIME ON WEDNESDAYS

Tina Shi

Starting in the third week of March, the school start time on Wednesday has been moved back to 8:30 am. Flex time is now between 9:00-11:00 am. Students should continue to attend teachers' flex time for any questions, help, or concerns about their grades.

COLLEGE WORKSHOPS FOR 10TH AND 11TH GRADERS

Tina Shi

The STEM Advisory Board hosted two college advising workshops for STEM sophomores and juniors. The first college workshop was on March 12th, and the Advisory Board members provided an overview of the college application process. The second workshop was on March 19th, and an overview of the common app was provided. In addition, the Advisory Board members spoke about their experiences applying to college and students were able to ask questions. Students can now get a head start before it's time to apply!

UPCOMING AP EXAMS

Lilly Fisher

For students signed up to take the AP exams, they are fast approaching! AACPS has shared the exam schedule with students, as found here: [AP-Family/Student Letter](#).

While some exams are available only in pencil-paper format, others will have digital exams optional. Students can watch AP Daily learning videos, on-demand in the College Board's AP Classroom, for every topic and skill for their AP course to review before the exam. Students with extenuating circumstances who would like to take an exam in person using the pencil-paper test format will need to contact Virginia Fernández Milosvich, AACPS' AP

Specialist, to obtain the application.

Date	7:30am Local	11:30am Local	11:30am EDT	3:30pm EDT
Thursday 6-May		Comp. Sci A		
Monday 17-May	Comp Sci Principles			
Tuesday 18-May			English Literature	
Wednesday 19-May			European Hist	Art History
			US History	Macroeconomics
Thursday 20-May			US Gov/Pol	Psychology
			World History	
Friday 21-May	Spanish Lang/Cult*	Chinese Lang/Cult* French Lang/Cult* German Lang/Cult* Music Theory* Spanish Lit/Cult*		
Monday 24-May	Calculus AB/BC	Physics 1 Physics C: Mechanics		
Tuesday 25-May	Chemistry Physics C: Elec&Mag	Physics 2 Statistics		
Wednesday 26-May			English Language	Seminar
Thursday 27-May			Biology	Environmental Science
Friday 28-May			Comp Gov/Pol Human	Microeconomics

STEM IN HYBRID

Neel Garg

If there's one thing we can all agree on, it's that last year was rough. We had to adjust to a whole new normal and a whole new type of education. But luckily, things are finally starting to look up for us. Starting this month, hybrid learning began and we are all so excited to begin welcoming students back into the building. While we don't know everything yet, we do know that hybrid learning is going to be a fun journey that we are all embarking on together. As a friendly reminder to students in hybrid, please remember to wear your masks properly, covering your nose and mouth, and please remember to social distance. Let's start this new journey, together.



NEW JOB SHADOW OPPORTUNITIES

Natalie McDonald

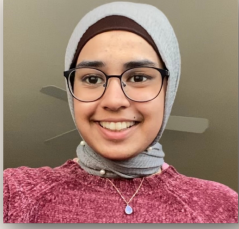
Job Shadowing is a requirement for all STEM students and as the third quarter comes to an end more job shadow opportunities will become available. Some of the latest job shadow opportunities are Student Action with the Chesapeake Bay Foundation, The CyberMaryland Conference, and the Million Girls Moonshot Young Women in STEM leadership panels. All required job shadows should be completed before the end of the quarter, so be sure to check the website and fill out the Google Form to receive credit for any job shadow you attend.



GET TO KNOW THE EDITORIAL TEAM



Arusa



Hey hey STEM Family. My name is Arusa Malik. I am a Junior in the Green Technologies pathway. Earlier in the school year, I was elected as a STEM Family Committee Co-Chair. (specifically running the newsletter). I absolutely love working with the editorial team and learning about what our STEM community does every month. I am so glad that we have this newsletter. It serves as a way to connect students, teachers, and parents, something that is especially important right now.

Lilly



Hello! My name is Lilly Fisher, and I am a 10th grader in the Earth and Space and Computer Science pathways. I joined the STEM newsletter in order to get to know more about the happenings of the STEM, and I love working with all of the editors and writers on the team!

Elizabeth



Hi! My name is Elizabeth Barker, and I'm currently a STEM junior in the Green Tech and Computer Science pathway. Ever since I was a toddler, I've always loved writing and helping the community. I am absolutely delighted to do the two things I love through the STEM Newsletter!

Neel



Hey everyone! My name is Neel, and I'm a sophomore in the Green Tech pathway. I joined the editorial team because I enjoy writing and wanted a way to contribute and get more involved in STEM. So, joining the editorial team seemed like the perfect option. I enjoy being able to collaborate with a team to create a beautiful end product every month, and I enjoy being more aware and involved in what happens within STEM!

Jaylene



Hello, my name is Jaylene Miranda and I am a sophomore in the nanotechnology pathway. I joined the editorial team because it gave me the opportunity to meet other people in the STEM program, along with allowing me to write about fun topics such as sports and holidays. Not only did the editorial team provide me with these things but it gave me something to look forward to during the week.

Tina



My name is Tina Shi and I'm a STEM Junior in the Nanotechnology and Computer Science pathways. I joined the editorial team because I wanted to try something new. Writing newsletters is something I haven't tried before and I am definitely enjoying it. I enjoy working with the STEM Newsletter team and learning about aspects of STEM that I am unaware of to become better connected to the STEM community.

Megha



Hey! I'm Megha Thomas and I'm a junior in the Green Technologies pathway. I joined the editorial team because I thought it would be a great way to help other STEM students be informed about what's going on in our program.

Eman



Hey! My name is Eman Zia, and I'm a ninth grader here at SRHS. As a freshman, I'm not in a pathway right now, but I'll be going into the Green Technologies and Earth and Space Systems pathways next year. One thing I enjoy about being on the editorial team is the opportunity to sum up a whole month with a recap of the events that have occurred—it's like concluding one part of the year and getting ready for the next.

Autumn



Hi! My name is Autumn Rose Strawbridge and I'm a sophomore in the Nanotechnology and Green Technology pathways. Joining STEM newsletter has been a great way for me to get involved in the STEM community and work with my peers to produce an awesome newsletter each month that shows what students have been up to.

Ke



My name is Ke Shi, I am a STEM sophomore in the Green Technology pathway. I joined the editorial team because it allows me to be better connected with the STEM communities. Joining the editorial team gives me the opportunity to interact with STEM students from different grade levels. Each month we update our newsletter and I enjoy sharing what is happening in our STEM communities.

Kira



Hi, my name is Kira McGuire. I'm a junior in the Nanotech and PLTW pathways. I joined the STEM Newsletter editorial team because I've always loved to write and I wanted to be more involved with the STEM Family Committee. Every month I get the opportunity to write about interesting projects and activities happening in the STEM world and keep people informed.

Anthony



Hi, my name's Anthony Morgan and I'm a junior in the Nanotech and Engineering pathways. I help to make the final edits and polish everything up before the newsletter gets published and sent to everyone. As I read through all the stories, I enjoy hearing about projects that I remember doing as a freshman and sophomore. Some of those projects I really liked, and some ... not so much, but it's nice to know that we can all have shared experiences, even if we do graduate at different times.

Natalie



My name is Natalie McDonald, I am a sophomore in the Project Lead The Way pathway. I joined the editorial team because I was looking for a creative way to be involved in the STEM community. I really enjoy this club because it allows me to collaborate with others and it allows me to write about the important things going on in the STEM community.

- 9TH GRADE BULLETIN -

SCIENCE FAIR

Eman Zia

The 2021 Science Fair has started for all STEM 9th graders in Systems Science A! The project will carry on into the summer, and eventually, to Systems Science B with Ms. Chen. As of right now, everyone should have their project topics chosen and should start working on/be done with their literature reviews, which can take up a good chunk of time, so if you're a procrastinator, get started!

ECYBERMISSIONS

Eman Zia

While March wasn't a very hectic month for 9th graders in STEM (besides everyday assignments), students did get one sizable new project in PBL: eCybermissions. We've been hearing about it for a couple weeks now, but we were just recently told more of the details. Students have already been placed into groups of 4-5 people, and as of right now, they should be preparing for the research project by picking an issue to focus on. This can be any kind of issue – social or economic, local or global, etc. Students will later investigate the problem in more detail and eventually develop a creative solution that addresses the problem.



- 10TH GRADE BULLETIN -

GLOW LAB PROJECT

Ke Shi

Students have picked up their Glow Lab STEM kit and are currently working on their Glow Lab Project. Students work in groups of three to four members to complete this team challenge project. They will make a claim as to how chemical reactions make light without heat and will each do an experiment at home to collect data on fluorescence, phosphorescence, and chemiluminescence to learn about photochemistry. They will then discuss the results together to put a presentation together that includes background information, an abstract, and a paragraph that supports their claim. The written communication (lab write-up) portion will be graded in their System Science B class and the oral communication (video presentation) portion will be graded in their Project Based Learning class.

ADCAP PROJECT

Ke Shi

In System Science B, students have been working on their Q3 Project. Students will come up with a unique and innovative plan to help create a meaningful change and healthier school communities. They will pitch their ideas using the AdCap innovative Project Designer and by this point, they should have already registered for it. "Your Move, Zoom!" and "Build a Better Breakfast" are the two different options to choose from. As of right now, students will only need to submit a plan to compete for funding to implement their project ideas. However, even if students don't get a grant, this project will still move forward to Q4 as part of their service learning hours.

AdCap[®]
AdVenture Capital

SUMMER OF SERVICE MEETING

Autumn Rose Strawbridge

All STEM sophomores had a mandatory Summer of Service Orientation on Monday, March 22nd at 3:00 pm. This meeting went over everything students needed to know about how to choose, participate, and record their service project for this upcoming summer. If you were unable to attend, the make-up session is Wednesday April 7th at 8:00am. The Meet link can be found on the Class of 2023 Google Classroom. Email mpschrader@aacps.org with any questions. .



TIMELINE IN PBL

Ke Shi

In their Project Based Learning Class, students have been creating a timeline for themselves that will help them now and in the future.

Students' timelines includes the important milestones that they want to accomplish prior to their high school graduation. The timeline also includes the estimated dates of the events. In addition, the timeline prepares the students for college, an important step in their life. Therefore, it is very important for students to know and write down any important events that they hope to accomplish.

FAHRENHEIT 451

Lilly Fisher

Students in STEM English 10 recently started their unit on the dystopian novel Fahrenheit 451, using it to analyze the effect of censorship on society, why people conform to societal standards, and how authors use diction to develop a theme. Each class, they are assigned a portion of the novel to read, and for each of the three sections in the novel, students select quotes and explain their contemporary relevance using synthesis questions. Students also participate in class discussions about the novel using questions they have developed. In addition to this, students worked in groups to analyze the effect of figurative language and characterization on the theme of the novel, culminating in a group paragraph that was submitted for a grade. All of these assignments will contribute to a deeper understanding of the novel and how censorship affects society.



COLLEGE APPLICATION ESSAY

Lilly Fisher

Continuing their college preparation unit in Project Based Learning (PBL), students wrote a rough draft and final copy of a sample college application essay. They had the opportunity to choose a question from the Common Application, an application used by over 900 colleges, or from the University of Maryland, College Park's application. After writing a rough draft, students got feedback from their peers in order to improve upon their ideas. They will receive feedback on their final copy from the PBL instructor, Mr. Carroll. This essay provides students with the opportunity to become accustomed to the college essay writing process, as well as gives them a potential essay to use when the time comes to apply.

- 11TH GRADE BULLETIN -

SCHOOL DAY SAT

Arusa Malik

On March 24th, all SRHS Juniors had the opportunity to take the SAT during the school day. Several students came to school at 8:00 AM, ready to take this important exam. Before test administration, students were given snacks from the AACPS Nutrition Services. The tests were approximately three hours long. Each classroom has about 7-10 students, all maintaining six foot distance. There was also a teacher proctor in each room. After the test was over, students were given a dinner to take home. Congratulations to all the students who completed this important stepping stone in their high school career! Results will be shared early to mid April.

Please email Mr. Moore, our school testing coordinator, with any concerns: jrmoore@aacps.org.

INTERNSHIP PORTAL

Tina Shi

The internship portal was introduced to STEM Juniors on March 3rd. Students should have their resume already uploaded to their profile and start applying to internships that interest them. Students should apply to the internships as soon as possible since it is very competitive. They should also check the portal frequently for any new internships. New internships will be added throughout the months. It is very important for students to stay updated on their internship process. Please email Ms. Catan for inquiries: hcatan@aacps.org.



NANOTECHNOLOGY PATHWAY

Tina Shi

Students from the Nanotechnology pathway have been assigned to work on the Hand-Crank Flashlight as their Quarter 3 project. This is the STEM Kit provided by the school. The Hand-Crank Flashlight project allows students to learn about different electronic components. In addition, students are going to work through the building process and create a video of their tinkering. The video will include a discussion of the functions and the quality of the materials. The project takes place from March to April.



ECAP INFORMATION SESSIONS

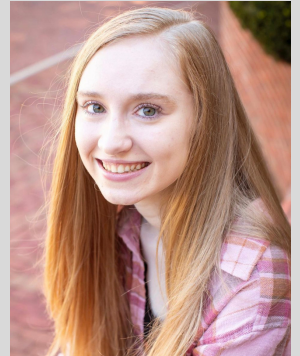
Elizabeth Barker

South River High School will be hosting the ECAP Personal Registration Day Prep virtually this year for all South River juniors. If you are currently in 11th grade and want to take AACC courses next year, you should sign up for this session. The ECAP informational session will be on April 22, 2021 from 10:45 - 11:45am. To sign up, you should contact Ms. Phibbons at mphibbons@aacps.org. AACC registration begins May 4th, 2021. For more specific questions or concerns relating to ECAP, contact dbennett@aacc.edu.

- 12TH GRADE BULLETIN -

AP + PLTW STUDENT ACHIEVEMENT

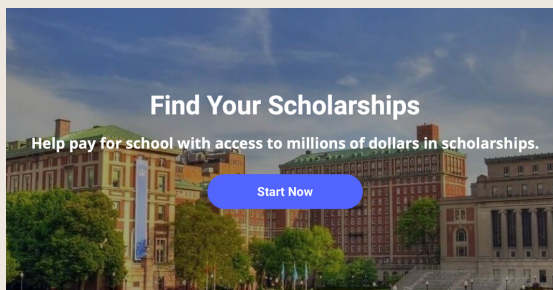
STEM would like to recognize one of our own seniors, Lucy Kopin, for earning the AP + PLTW Student Achievement in Engineering. This award highlights students who have gone above and beyond when it comes to engineering knowledge and application. This is the final year that PLTW will award the AP + PLTW achievement, and Lucy is one of only 14,500 students to receive recognition since 2016. We are proud of her ambition, perseverance, and the skill sets she has acquired to continue unlocking her potential to thrive in life beyond the classroom. Lucy will be attending Duke University next year! We wish her all the best on her college journey. Way to represent STEM at South River!



SCHOLARSHIP RESOURCES

Some scholarships for college are merit-based. You can earn them by meeting or exceeding certain standards set by the scholarship-giver. Merit scholarships might be awarded based on academic achievement or based on a combination of academics and a special talent, trait, or interest. Other scholarships are based on financial need. Many scholarships are geared toward particular groups of people; for instance, there are scholarships for women or graduate students. And some are available because of where you or your parents work, or because you come from a certain background (for instance, there are scholarships for military families). A scholarship might cover the entire cost of your tuition, or it might be a one-time award of a few hundred dollars. Either way, it's worth applying for because it'll help reduce the cost of your education. Here are some helpful websites:

Fastweb.com
Moolahspot.com
SallieMae.com
Cappex.com
Petersons.com





MARCH STEM TEACHER SPOTLIGHT MR. CARROLL



WHAT IS YOUR PROFESSIONAL BACKGROUND?

This is my 22nd year teaching, all in Anne Arundel County Public Schools. I started as an English teacher at Glen Burnie High School before coming to South River in August of 2006. At South River, I have taught AVID, English, Physical Education, and STEM classes. Currently I teach STEM English 9 and tenth grade Project Based Learning. I am also the head cross country coach, assistant track coach, and the advisor for the Wounded Warrior club. I graduated from Boston College and completed my student teaching at North Quincy High School – I was 21 years old teaching 18 year old seniors, which was an interesting experience. I also participate in several programs sponsored by the Maryland State Department of Education that promote teacher training and retention.

WHAT MOTIVATES YOU?

I was extremely lucky to have coaches that motivated me to be better in high school and their guidance allowed me to create and achieve goals that I would not have otherwise. My goal as a teacher and a coach is to provide that same motivation to the students I teach. Watching students overcome challenges and commit themselves to being the best version of themselves motivates me to be a better teacher, coach and person.

WHAT IS THE BEST THING ABOUT STEM AT SOUTH RIVER?

Opportunities – STEM affords students and families so many opportunities to find themselves, explore, learn new things, and make lifelong connections. Each year, I am amazed by opportunities that our students have, and in turn, that I have. Even in the virtual environment, we are finding new ways to reach our students through online programs and experiences.

WHAT IS YOUR FAVORITE IN-SCHOOL MEMORY?

When seniors share their college acceptance letters – it's validation of the time we have spent together and the work they have put into their goals. College acceptance letters are oftentimes family accomplishments and can be life changing for the student and their family.

WHAT IS YOUR MOST LISTENED TO COMMUTING TO SCHOOL SONG THIS YEAR?

I've been playing the Killers a lot recently, I downloaded a whole bunch of their albums and have been listening while working most days



SPECIAL MARCH HOLIDAYS

INTERNATIONAL WOMEN'S DAY

Lilly Fisher

International Women's Day, which is celebrated annually on March 8th, is a global holiday celebrating the social, economic, cultural, and political achievements of women. The day also marks a call to action for accelerating gender parity. Significant activity is witnessed worldwide as groups come together to celebrate women's achievements or rally for women's equality. International Women's Day (IWD) is one of the most important days of the year to celebrate women's achievements, raise awareness about women's equality, lobby for accelerated gender parity, and fundraise for female-focused charities. The campaign theme for International Women's Day 2021 is 'Choose To Challenge'. Find out more here: <https://www.internationalwomensday.com/>



ST. PATRICK'S DAY

Jaylene Miranda



This past month we celebrated St. Patrick's day which is also known as the Feast of Saint Patrick, Lá Fhéile Pádraig, and many other names.

This holiday is represented by the shamrock and celebrates the commemoration of the arrival of Christianity in Ireland. The origin of the name St. Patrick traces back to the fifth century. Saint Patrick was the patron saint of Ireland and its national apostle. St. Patrick was born in Roman Britain, but he was forcefully brought to Ireland as a slave at the age of 16. He later escaped, but returned to Ireland and was credited with bringing Christianity to its people. He established many monasteries, churches, and schools. We now celebrate this religious holiday on March 17th each year which is the anniversary of St. Patrick's death.

PI DAY

Kira McGuire

This month we celebrated PI Day! PI Day is the annual celebration of the mathematical constant "PI". It is celebrated every year of March 14th since 3,1, and 4 are the first few digits of PI. But what exactly is PI? It is defined as the ratio of a circle's circumference to its diameter, but it's an irrational number meaning that the exact value of PI is unknown. The next time you use PI in class remember its special place in the math world.



OPPORTUNITIES

CLUB SPOTLIGHT: Femengineers was founded in September 2020 with the goals of increasing female representation in Engineering, fostering leadership through outreach, providing opportunities for members, and increasing knowledge about engineering. They have had multiple guest speakers and interactive activities in meetings, and continue to look for new projects in the virtual world. Femengineers holds general meetings once a month, where members work together to provide opportunities for girls in STEM. All new members are welcome.

Femengineers meets Tuesdays in the club block.

Google Classroom Code: 2bwigsg

COLLEGE BOARD'S BIG FUTURE PROGRAM:

CollegeBoard is hosting a Big Future College Event Series, where students can explore their options for their future across various regions of the United States. The series is broken down into three main regions, with colleges in the west and southwest regions being presented on March 30th, Midwest colleges on April 18th, and Southeast on April 29th. This is a great opportunity for sophomores and juniors to learn more about a specific college and get connected with admissions officers and students. Register online at cb.org/bigfuturedays to learn more and reserve your spot.

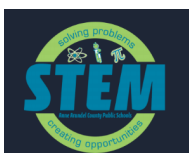


STEM After Hours: It's a fact that online school can be stressful. If you find yourself falling behind in class, feeling overwhelmed, or simply having no motivation, then STEM After Hours may be the place for you. You'll find several upperclassmen and teachers who can help provide the resources you need to get that one geometry assignment completed or verify that Systems Science grade. Want to sign up? Join the google classroom with code xtvjsbj. Meetings are Mondays through Thursdays from 4 to 5 pm.

NOTE FROM THE CHAIR

Hello everyone! We hope everyone is energized and excited for spring. Many new opportunities and events become available around this time so say tuned for important dates and information in the coming months. We hope you enjoyed reading the March 2021 edition of the STEM newsletter. We can't wait to share the next one with you! Stay safe, wash your hands, and wear a mask STEM family.

Respectfully, Arusa Malik



ADDITIONAL RESOURCES

Free hot lunch pick up:

<https://www.aacps.org/mealpickup>

Find a school counselor:

<https://www.aacps.org/site/Default.aspx?PageID=862>

COVID-19 Information:

<https://www.aacps.org/coronavirus>

Incident report form:

<https://secure.aacps.org/webapps/SEFP/OSOS>

Anne Arundel County Crisis Response System
Warmline 410-768-5522

The Maryland Youth Hotline 1-800-422-0009

Student Safety Hotline 1-877-676-9854

COMMUNITY WARMLINE

Crisis Response System

410-768-5522
24 HOURS A DAY,
7 DAYS A WEEK

For Anne Arundel County Residents
in crisis. Get assistance and
resources within the community.

**Reminder to all: You are
not alone in your
hardships! Please reach
out if you need it.**

CRISIS TEXT LINE |

Text HELLO to 741741
Free, 24/7, Confidential



A suicide prevention network of
161 crisis centers that provides a
24/7, toll-free hotline available to
anyone in suicidal crisis or
emotional distress.