Second Semester Start

by Lilly Fisher

The end of the semester came up quickly! The last day of the first semester was on January 28th, and the second semester will begin on February 1st. Students will receive their report cards in the first few weeks of February. Congratulations everyone!

Snow Hawks

by Autumn Rose Strawbridge

The Polar Bear Plunge is an annual community event in Maryland which works to support the Special Olympics, an organization working to provide opportunities for kids with disabilities. This year’s plunge has been rescheduled for March 24th-26th but donations can be accepted anytime through their website: https://plungemd.com/ The Snow Hawks provide the opportunity for South River students and take the plunge in person or virtually. For more information on how to get involved at school, talk to to Mrs. Kokosko.
Congratulations to the following students for being confirmed as Student Government Freshman Class Officers: Kelly Webber, Annika Fisher, Clara Krebek, Yaani Patel, and Jazlyn Sivak! We are so excited to see you serve your students for the remainder of the year. For more information about SGA please visit our Instagram page @seahawks.sga

Freshman Class Officers
by Arusa Malik

College Readiness Club
by Jaylene Miranda

As of last year roughly 1.5 million students within the US took the SAT at least once, but only roughly 5% scored above a 1400. South River’s College Readiness Club is dedicated to helping our students reach that 95th percentile. College Readiness Club is an official branch of the nonprofit organization, the College Readiness Project, whose mission is to help all high school students tackle the college application process. Here at South River our branch will work with students to prepare and review for the PSAT, SAT, and ACT. The club also holds workshops to help students start or perfect their resumes and cover letters, while also bringing in different admissions officers from colleges such as UMD, UMBC, Virginia Tech, Penn State, and many more. Don’t miss out on this opportunity to advance your academics and join us in A101 on Wednesdays during silver block! DM us on instagram with any questions @crpatsouthriver

Brightspace Resources
by Arusa Malik

Having trouble with BrightSpace?! Check out these resources explaining how to better use BrightSpace, turn on notifications, and organize your online learning: https://www.aacps.org/domain/1788. This February, AACPS families will be able to use a new tool, Brightspace for Parent & Guardian, to help their students succeed. This exciting system will be easy to access, simple to use and provide a more in-depth look into their student’s performance. Features include dynamic dashboards where families can track student progress; teacher communication tools to support school-family connections and easy access to lessons, assignments, and assessed work/grades.
A MOMENT OF REFLECTION...

Here is what STEM students across grade levels had to say about their first semester of this year!

9th Grade

"It was very challenging, but I learned to adapt to the rigorous classes and new school setting. I am glad I chose to do STEM, and I’ve made many friends because of it."

"We were able to learn very interesting concepts, even if there was a surprising amount of work. It was great to be back."

10th Grade

"It went by really fast because of the large workload all the time, but overall it wasn’t as stressful as I first imagined it to be."

"This semester was enjoyable because of the social interactions, but also stressful because of the high workloads."

11th Grade

"It was definitely a new experience, but it was overall a rewarding semester."

"It challenged me in a good way, and it was ultimately a success. I learned a lot and feel proud of what I accomplished."

12th Grade

“Getting the opportunity to interact with teachers has been great! Personalizing and getting feedback is always great.”

“As a STEM Senior, it’s been pretty stressful balancing Capstone and AP Classes while still having time for myself, but it’s been great to interact with friends and faculty.”
English Novels

by Annika Fisher

This winter, the STEM English 9 class started reading their first class novel, *Of Mice and Men*. The students have been working on reading and annotating the novel, looking specifically for literary devices. Their quarterly project was a draft of their essay examining the topic of loneliness throughout the story.

Pathway Night

by Lilly Fisher

Freshmen will have the opportunity to learn about the different pathways the STEM program offers at Pathway night on February 3rd. They will hear from current students and teachers in the various pathways and view demonstrations regarding to the things they will learn. In the spring, they will choose their pathways, which will determine some of the classes they take in their sophomore, junior, and senior years.

Lunar Project

by Annika Fisher

Students in the 9th grade Community Citizenship class worked on their lunar project over the course of this past month. Teams worked on creating a lunar base, making a mission patch, and researching lunar topics. Their final project grade was a presentation of their project, created by all the team members. Students were graded on both their presentation skills and the content of their presentation.
Our eyes are an amazing gift that allow us to take in the world around us. In Systems Science, we got to see just how the eye worked throughout the past 2 weeks.

// Eye Dissection

To start off on a basic understanding of the eye’s anatomy, students were given the opportunity to dissect mammal eyes; Both sheep eyes and cow eyes were available. Students split up into groups of 2-4 classmates and were given a set of tools to freely explore their eye, taking into note the different parts and layers that they cut through.

// An Eye on Optics Project

After some classes of exploring reflection and refraction, and the different purposes of parts of the eye, students were given the task to create their own model of how the eye works. This group endeavor entails making convex and concave lenses out of gelatin, using an optical bench to understand the effect of different lenses on an image’s projection, and eventually, the real model that was presented along with a powerpoint in class (1/27 for B-Days and 1/28 for A-Days). As small as it may be, this unit showed just how intricate the eye can be, and how we come to see the things we do.
Problem-Solutions Project

by Eman Zia

As the recent Resumes/Internships Unit wrapped up, students were introduced to the Problem/Solutions Project in PBL! For this endeavor, students formed their own groups of 2-4, in which they decided on an issue that they believed needed to be addressed. This could range anywhere from excessive packaging for online-ordered products to water pollution in the Chesapeake. As the weeks unfold, students will get to put their ingenuity to the test to come up with creative and meaningful solutions.

Self-Guided Novels

by Eman Zia

This unit in English focused on strengthening writing and formulating arguments. In contrast to the past reading of *Things Fall Apart* by Chinua Achebe, this time students were provided with an assortment of books, out of which they could make their pick. This selection included Suzanne Collin’s infamous *The Hunger Games* and John Green’s *Looking for Alaska*, among titles like *A Separate Peace*, *I, Robot*, and *Anthem*. To add to the “student-led” theme, each book group was given the duty of deciding their own reading distribution, spanned out over about a month.
UPCOMING EVENTS

MISA Testing

As all sophomores have probably heard by now, state-mandated MISA Testing will occur on the first day back from the long weekend—the first of February. The Maryland Integrated Science Assessment (MISA for short) Testing is a requirement for all STEM students, and will count for 20% of their semester grade in Systems Science. This year, the test will only include life sciences principles, completed within 2 increments of time that consume periods 1 and 2.

All students are required to report to the Auditorium on February 1st, 2022, sharply before 7:30. At the stated time, testing will start and entering the Auditorium will be prohibited. The seating chart can be seen outside Ms. Chen’s room; Students are encouraged to take a picture so that everything goes smoothly on Test Day.

For last minute practice, mock-up tests can be found here.

For more information from the county, including a more in-depth explanation of the MISA, click here.

Class Bonding Event

by Megha Thomas

STEM sophomores will get the chance to bond with their classmates, set goals, and get advice from seniors on Friday, February 4th. This event will be held in the auditorium during first period. Be on the lookout for grouping information from Mr. Carroll closer to the date of the event.
Glassblowing  
*by Autumn Rose Strawbridge*

Students in the nanotechnology pathway have been learning about glass blowing after researching the Jamestown Glass House in Virginia. Through experimentation, they used heat and borax to construct glass beads encompassed in copper wiring to develop a brief understanding of the process.

Planetary Cryospheres  
*by Lilly Fisher*

Students in the Earth and Space pathway continued their exploration of planetary science by researching cryospheres in our solar system. They learned about the origins and effects of water, both liquid and frozen, on Earth’s viability for life. They also collected evidence to support the two competing theories as to how water arrived on Earth: it may have come from volcano eruptions, or from collisions of the early Earth with comets and other debris. They used evidence about the traits of Earth to support theories about the possibility of life on other celestial bodies, such as Jupiter’s moons Europa and Ganymede.

DNA Cloning  
*by Autumn Rose Strawbridge*

Green tech students have been working on cloning DNA from bacterial cells. In collaboration with Johns Hopkins, they have researched the cell makeup and genetic properties of certain bacteria. The cells have now been sent to Rutgers University to be analyzed and provided feedback. In addition to experimentation and observation, a major goal of this project was to discuss the possibility of the clones as a possible bio fuel source, a question that students will continue to discuss over the rest of the quarter as they finish the project.
English Language Speeches

by Jaylene Miranda

Over the past month within the AP English Language and Composition classes, students have been diligently working on their argumentative speeches. The students were given a list of topic choices such as: global warming, gun violence, AI art, and much more. The students were also free to propose new topics they were passionate about. Once they had decided on a topic they students conducted thorough research on both their arguments, and the opposing argument. Students were to present their speeches at the end of the month with solely their speech outline. Students were free to use their creativity when presenting; several students did so through the use of props and other visuals. Even with all the past snow days, the classes were successful in hearing and presenting a majority of the speeches.

National History Day

by Natalie McDonald

STEM Juniors taking Honors World History participated in this year’s National History Day competition. This year’s theme was Debate and Diplomacy; Students looked at some of the major disagreements in history and how they impacted the modern world. Students were tasked with choosing their topic and creating a website, trifold presentation, formal paper, documentary, OR personal representation of their topic based on the given criteria.
Scholarship Resources

by Arusa Malik

College students can get access to millions of scholarships at their fingertips. Here are some of the best scholarship websites to assist you in your search:

- Scholarships.com.
- Fastweb.
- Cappex.
- Niche.
- Chegg.
- Peterson’s.
- Unigo.
- Scholly.
- ScholarshipOwl.

Capstone Projects

by Arusa Malik

STEM seniors are currently in the planning and development phase of their engineering or STEM capstone projects! Projects include the development of accessible school doors to the impact of pollution on our turtle population. In STEM Capstone classes with Mr. Schrader, students are assigned roles based on the scrum model.
If you find all the words, send a picture of your completed word search to lillyfish17@gmail.com! The first person to complete it will receive a reward of STEM swag.

Puzzle credits to Arusa Malik
**RESOURCES**

Maryland Safe Schools Tip Line: [https://www.aacps.org/Page/8178](https://www.aacps.org/Page/8178)


COVID-19 Information: [https://www.aacps.org/coronavirus](https://www.aacps.org/coronavirus)


Crisis Resources: [https://www.aacps.org/crisisresources](https://www.aacps.org/crisisresources)

Anne Arundel County Crisis Response System Warmline 1-410-768-5522

The Maryland Youth Hotline 1-800-422-0009

Student Safety Hotline 1-877-676-9854

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

**Note From the Chair**

Hello! Thank you so much for reading this month’s edition of the STEM Newsletter. We greatly appreciate our readers! If you have any suggestions or comments as to how to improve our newsletter, please email me at lillyfish17@gmail.com. In addition, if you are interested in joining STEM Family Committee or the STEM Newsletter Editorial Team, please email me or Mrs. Pautsch (mpautsch@aacps.org). We would love some more writers!

Have a great second semester!

Lilly Fisher