

# The Academy of Science, Research, & Medicine Chronicle



Paulding County High School

November 2015  
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Welcome to Magnet Mania: Program Preview! We here at the Academy of Science, Research, and Medicine want this night to offer insight into the benefits of becoming a part of our program. In this edition of the newsletter, you will find many of the opportunities that Magnet students have been awarded by attending the Academy, as well as awards Magnet students have received, and information on clubs or activities in which Magnet students have played a major role. We hope that the Magnet Mania is an enjoyable and informative experience.



# Medical Symposium

By Jourdan Bourque and Jordyn Carney  
November 2015

From dead bodies on the big screen to handling the clamps and trinkets brought in for some hands---on experience, the medical symposium was an all---around 'magnified' experience! The freshmen this year were stoked, a little nervous, but still very excited. The preparation and diligence with their research and their well---informed questions kept our guests on their toes which played a great part in making this year's symposium such a success.

Of course, the freshmen cannot get all of the credit, this event would not have run nearly as smoothly without the help of our teachers and friendly Magnet sophomores: Shanta Barron, Adrienne Almonte, Madison Thomason, Emma Jones, Kevin Pownall, Terryn Overton, Anny Ni, LeeAnn Fowler. The freshmen would like to thank all of the teachers, 10th grade Magnet volunteers, the guest speakers, and of course, Mr. Wilcox for making this event the best possible experience for them.

While the freshmen enjoyed a tasty lunch from Zaxby's, they had the opportunity to listen to two out of the ten lunch speakers, Vicki Hogue (nurse administrator), Melissa Gorham (nurse), Taryn Hand (physical therapist), Amy Murray (pediatrician), Andrew Tripp (veterinarian), Karen Robinson (EMT), Myrna Pintro (PA), Dr. Sacks (cardiologist), Mike Laur (podiatrist), and Tom Cable (lawyer), who came to converse with them about their career choices while they ate. These speakers were insightful and encouraged the ninth graders to continue pursuing their goals. The symposium was not just about an amazing lunch, the freshman also had the chance to meet and to listen to guest speakers throughout the day.

One of the more popular speakers was Dr. Mark Unger, a psychiatrist. He works with many different people, but mostly those with severe mental disorders and substance abusers. He was very open and honest with the students, answering questions to the best of his abilities. He even had some very intriguing stories to share about personal experiences and the patients who have impacted his career. Overall he gave a very detailed and terrific presentation, sending students home with a different perspective about the once thought of mind---reading scientist.

Another fantastic speaker was Dr. Zack Brock, a general surgeon. As a general surgeon he works mainly on the abdominal area in the emergency room.

He brought many of his surgical tools, including different types of clamps and staplers. Most of the students were intrigued by the topic of surgery and looked forward to his explanations about the "Surgeon's life."

The key note speaker was Mr. Mike Gerhard the medical examiner. For those who may not know what a medical examiner does, they are the people that will do an autopsy when needed after a death. Mr. Gerhard had many very interesting things to talk about, such as what happens to a body when it dies, and how to determine the causes of death and the time of death. But he didn't just tell the freshmen and sophomores, Mr. Gerhard, along with explanations, had some photos (some more gruesome than others) of bloating, rotting, and even stiff deceased bodies.

The students also had the chance to meet Dr. Tonya Shearer (a marine biologist) who talked about the invasive orange cup coral species and her business, Mr. Tom Cable (the lawyer) who taught the students about the different types of criminal and civil lawyers, Dr. Rich Maguire (the orthopedist) who spoke about implants and bones, and Dr. Jenny Segal (the pharmacist) who had fun and entertaining videos for the freshmen along with an informational and educational presentation.

Freshmen had a lot to say about the speakers, but here are a few of the amazing things they had to say about the symposium:

- "It was the most informational, medical, and amazing thing I've been to since my first veggie tales concert." (Jordyn Carney)
- "The medical symposium opened our hearts, minds, and souls to new experiences and gave us opportunities to see what it really takes to succeed in a high stress job." (Sam Burger)
- "It was a memory to be remembered and reflected on." (Dormecia Allen)
- "The fact that we, high schoolers, were able to walk in each of the professionals' shoes for minutes at a time was absolutely eye opening!" (Nicole Frey)
- "The medical symposium was better than opening presents on Christmas morning." (Maeghan McKean)

The Magnet Symposium was an overall experience that was unbelievably fascinating. The speakers were phenomenal and very informational. They exceeded the student's expectation and encouraged the students to pursue their careers and goals whether medical or not.

The freshman would again like to thank every one of our guests who helped this day to become a memorable one.

# Medical Symposium





## Healthcare and HOSA



November 2015

It has been an exciting few months for the healthcare students and the HOSA participants. Mrs. Swena took Nathan Brown to Anaheim, California in June to Compete in the National Leadership Conference for HOSA. Nathan qualified for this honor by scoring in the top 50 out of the 4,000 students who took this knowledge based exam in Athens, Georgia earlier this year at the State Leadership Conference. Nathan was also the only student from any of the Paulding County High Schools who qualified to compete at Nationals.

This year HOSA has become a true student led organization under the strong leadership of two of our seniors, Briana Beniot, President and Kenley Russell, Vice President. Briana and Kenley have made significant contributions to the types of community services that students in the organization are participating in this year. One of the events will be to undergo training in working with Hospice patients. Once this training is complete students will be volunteering through Tapestry Hospice here in Paulding County, which is a great opportunity for our students to give back to our community. Other community based service events that HOSA students will participate in this year include canned food drives, hygiene products for battered women, and books for disadvantaged children. PCHS HOSA is here to make a mark on their community though the positive impact our students will have throughout this school year.



# Math and Science Night

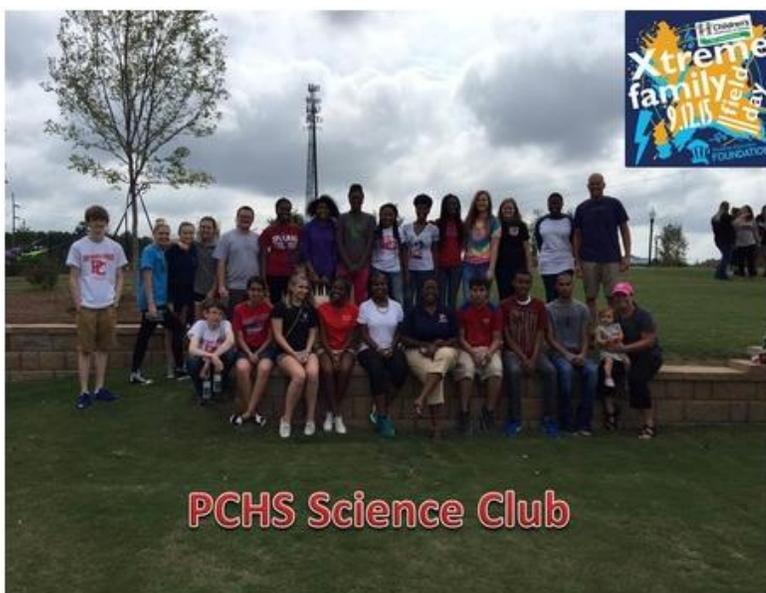
November 2015

Magnet students have been traveling throughout the district visiting elementary schools during their "STEM Science" nights. STEM is an acronym standing for Science, Technology, Engineering, and Mathematics. The Academy of Science, Research, and Medicine is in the process of becoming the first and only STEM certified program in the district. We have already visited Hutchens, Poole, Allgood, Northside and Dallas elementary schools, with many more scheduled over the next several months! In fact, students in the magnet have already collectively volunteered over 450 hours this school year!

The goal of these visits has been to engage and excite students in science and mathematics. Magnet students have conducted numerous chemistry demonstrations and exposed these schools to cutting edge biotechnological techniques, such as gel electrophoresis and genetic engineering. According to Mr. Pedersen, "These are techniques I did not have exposure to until college." We are very proud to be able to give back to our community.



## PCHS Science Club Represents!



**PCHS Science Club**

The PCHS Science Club had over 25 student volunteers to help the Paulding Education Foundation during the second annual Xtreme Family Field Day at Veteran's Park. We were able to represent PCHS and give back over 200 hours of time to our community. Great work Science Club!

## PCHS Science Club Spooky Science Night

Once again, the PCHS Science Club represented our school and gave back to the community. We had more volunteers than any other school. We were thanked for making the night at Hutchens "a great success." Way to go!





# Zoo Field Trip

By Chayton Pabich  
November 2015

This past week has been an exciting one for the magnet students, especially with Monday's animalistic Atlanta Zoo field trip. The trip resulted in a rough estimate of two dozen elephant or red panda selfies, and at least three glaring bongos. This unamused animal was situated immediately next to the regal lions, who were lounging about in the freshly fallen rain.

Further along the path was a dozen scaled critters where, in this amphibious and altogether warm environment, the magnet students found the long sought after hellbender! Surrounding these slimy salamanders were students who were amazed and in awe of the entirety of amphibious life. Despite a few hiccups from the weather, the students thoroughly enjoyed and learned from the experience.

# Governor's Honors Program

By Cindy Gallardo

In the Governor's Honors Program, rising juniors and seniors are nominated for their achievements or creativity in a particular academic or artistic field. The areas of nomination include: Science, Mathematics, Social Studies, Music, Theatre, and Visual Arts. Our nominees must prepare themselves for interviews on the school level, and then if chosen to continue, on the district level.

Congratulations to the following students for being selected to move on to the District Level interviews and who will represent Paulding County High School for the 2015-2016 Governor's Honors Program:

- Lena Allen--- 11
- Alaina Bennett--- 11
- Lily Caglianone--- 11
- Isabella Davis--- 11
- Brianna Duncan---10
- Shaun Eisner--- 10
- David Frey--- 11
- Kimberly Hadaway--- 11
- Duncan Lindsey--- 10
- Brandon Lucas--- 11
- Chayton Pabich--- 11
- Symone Reid--- 11



# FLASHBACK TO 2014

## *The Quest for the Water Bear*

By Andrea Hill  
December

It's that time of year again--- the time where Mr. Pedersen's Honors Biology classes begin the "Microscopic Kingdoms Lab," better known as "the Quest for the Water Bear." "The water bear lab offers an opportunity for students to explore the six kingdoms of life through inquiry," says Mr. Pedersen. In this lab, as many of you remember, students were searching for tardigrades, or water bears, amongst other microscopic organisms. For many of the sophomores and juniors, this was a defining moment in their academic lives. Jordan Fitzgerald, 11, comments that "the water bear lab really was one of the first times that science was more than just a subject that was taught in class. It was actively looking for something and exploring science and the world of microbiology. It was a discovery process, of the water bear, but also as what science can be, as more than just a subject that we study but also as a career and as something that people actually do... And that's where I kind of realized that this has a lot of applications, and I'm not just learning about the applications. Now that I'm in high school, now that I'm in the magnet program, I'm applying it." Aquilah Perry, 10, says, "It was fun competing amongst ourselves using real science. I feel like this shared experience brought us, as a magnet program, closer together." The water bear lab is meaningful to all students in the magnet program, because the water bear is a symbol of our collective academic resilience and strength.

Nathan Boyd, 11, has a different take on the Quest for the Water Bear. "The water bear for me was really the first experience that we were free to discover whatever we wanted to in science. We had the curiosity to find any kind of microorganism, where, in science, before this, we were kind of restricted to do a certain step at a certain time--- and if we can understand the function and the makeup of the small organisms, we can apply that to humans and possibly help humans in the future."

To the ninth graders working on this lab right now--- the water bear lab will carry on its legacy for you. It will be relevant for the rest of your labs in Honors Biology, for, as David Frey, 10, puts it, "provid[ing] a strong foundation for the biotechnology pathway, which hopefully many freshmen will be taking next year," and for, of course, reminiscing about it next year when the new freshmen roll in. The water bear will remain an inside joke of sorts for magnet students, and students will always be able to relate to the resilience of these wonderful creatures. May the quest continue...



By Anny Ni  
March

On Wednesday, the 21st of January, the ninth grade Magnet Honors Biology classes performed a lab known as the "Burning Calories Lab."

"It smells like a kitchen with overcooked food. It smells like burnt eggs!" Britney Moses, a Magnet Freshman, exclaimed excitedly.

The experiment consists of straightening out paperclips and taping them to the center of pie pans to act as poles, which different foods were placed on. The young scientists poured 10 mL of water into test tubes using graduated cylinders. The scientists used candles to light the foods on fire. They then placed the test tubes over the flames. After the fire died down, the scientists were able to figure out how many calories are found in each food, which was based on how much the temperature of the water in each test tube rose. Experimenters were asked, "In your opinion, what was the best part about this lab?" at the conclusion of the experiment. Joshua McIlrath enthusiastically commented, "It's cool 'cause not only are we setting things on fire, but we're also seeing how many calories are in our [food]."

"Who knew nuts could boil water?" Heather Thompson commented.

The best part about the Burning Calories Lab was setting the food on fire, and watching it burn was absolutely amazing.

# Paulding County High School

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## Important Dates

Progress Reports: **November 13**

Thanksgiving Break: **November 23--27**

Two-- Hour Early Release: **December 9**

End of First Semester: **December 18**

Holiday Break: **December 21--January 1**

Student Holiday: **January 4**

Is there anything that you want to see in the newsletter? Do you have any cool photos that you think could inspire a story? Do you have any poetry or short stories that you want to share? Let us know!

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Check out a digital copy of the newsletter on our website:

<https://sites.google.com/site/pchsmagnetacademynews4/>

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