

# The STEM Pulse @SanfordMS

JANUARY 2025 • ISSUE 1  
ADMINISTRATION

## Principal's Message

Dear Warrior Community,

Welcome to our first edition of STEM Pulse, the quarterly newsletter that brings you closer to the heart of Sanford Middle School Magnet, where science, technology, engineering, and math fuel our journey toward a brighter future! As a community deeply committed to fostering inquiry, innovation, and meaningful connections, our school is proud to lead the way in shaping creative, critical thinkers equipped for the demands of the 21st century.

Our focus on STEM is more than just a commitment to academic excellence; it's a pathway that allows our students to explore, question, and innovate. At Sanford, inquiry isn't just a method—it's a mindset. We encourage students to ask bold questions and seek creative solutions, transforming challenges into opportunities for growth. Through STEM-focused exploration, our students discover that their curiosity has the power to drive change and inspire progress.

But our journey doesn't stop there. We believe in the importance of building strong connections within our school and the greater community. Collaboration among students, teachers, parents, and community partners enriches our shared experience, allowing every individual to contribute to a collective vision of success.

In each issue of STEM Pulse, you'll find stories of our students' accomplishments, updates on upcoming events, and insights into the initiatives that make us a place where learning transcends the classroom. We invite you to stay engaged, be inspired, and join us in celebrating the accomplishments and potential of our future STEM leaders.

Together, we will continue to lead with passion, curiosity, and a shared vision for excellence. Stay tuned each quarter for inspiring stories and exciting updates! We look forward to sharing our innovative journey with you.

#WeAreWarriors #WeAreSanford

Committed to STEM Excellence,

Dr. Coleman  
Principal

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# THE IB LEARNER PROFILE



## MYP – The Middle Year’s Program

We are excited to share that Sanford Middle School is currently in the candidacy phase to become an official International Baccalaureate (IB) Middle Years Programme (MYP) school! This step marks our commitment to enhancing our curriculum and enriching the educational experience for all of our students.

### Benefits of Becoming an MYP School

The MYP framework is designed to help students develop critical thinking, engage in inquiry-based learning, and become global citizens who are well-prepared for the challenges of high school and beyond. An MYP education focuses on holistic learning, encouraging students to make connections between their studies and the real world. It fosters lifelong learning by nurturing curiosity, promoting intellectual and emotional growth, and strengthening academic performance across various subjects.

### The Power of the IB Learner Profile

Central to the MYP philosophy is the IB Learner Profile, which emphasizes the development of key attributes in students, such as being inquirers, thinkers, communicators, and risk-takers, as

well as being knowledgeable, principled, open-minded, caring, balanced, and reflective. These attributes help students not only excel academically but also grow into compassionate and responsible members of the community.

### Engaging with the Learner Profile in Warrior Block

This year, during our Warrior Block sessions, students have been engaging in lessons that connect directly to the IB Learner Profile attributes. These activities encourage self-reflection and active participation, allowing students to see the value in embodying these qualities in their everyday interactions and studies. By focusing on these attributes, we’re helping students develop the skills and mindset that are vital for their success inside and outside the classroom.

We are thrilled about the journey ahead and will continue to keep our community informed as we progress. Thank you for your support as we strive to make Sanford Middle School a place where students are not just learners but well-rounded individuals ready to take on the world!

## Magnet

### Attention 8th Grade Warriors!

We are excited to inform you that the registration window for Seminole County magnet programs is currently open. If your student is interested in applying to one of these unique and specialized programs, now is the time! The application period runs from **October 1st until December 1st**. On October 28th, representatives from various magnet programs gave a presentation to all 8th grade social studies classes, helping students explore the different options available for high school.

### Magnet Programs in Seminole County:

- Crooms Academy of Information Technology**  
Focus on technology and digital skills for future careers.
- Academy of Engineering at Lyman High School**  
A specialized program for students interested in engineering and innovation.
- Academy of Health Careers at Seminole High School**  
Prepares students for careers in the healthcare field through hands-on experiences and in-depth study.
- International Baccalaureate (IB) Diploma Program**  
Available at either Seminole High School or Winter Springs High School, this program provides a challenging academic environment with a global focus, preparing students for college and beyond.

For more details or assistance with the application process, please visit the Student Assignment and Program Access Department at [www.scps.k12.fl.us/district/departments/assignment-access](http://www.scps.k12.fl.us/district/departments/assignment-access).

Encourage your student to explore these opportunities and make the most of their high school experience!

## Guidance

When selecting a high school magnet program, parents should consider these key factors:

- Interests and Strengths of the Child:** The program should align with the student's interests, skills, and future goals, whether in STEM, arts, humanities, or another field. A good fit can enhance engagement and performance.
- Academic Rigor and Curriculum:** Understanding the academic expectations and how the program's rigor aligns with the child's current abilities and future goals is essential. Parents should assess if the curriculum will challenge and motivate their children without causing undue stress.
- Learning Environment and Support:** It's important to evaluate the program's culture, teaching style, and available support systems. Some students thrive in competitive environments, while others benefit from more collaborative or supportive settings.
- College and Career Readiness:** Programs with a strong focus on college preparation, internships, and career-specific skills can be advantageous, especially for students with clear career goals.
- Location and Logistics:** Consider the daily commute and schedule, as it can impact the child's routine and overall well-being. Accessibility and convenience can make a significant difference in a student's daily life.
- Success Rates and Outcomes:** Researching past student outcomes, including graduation rates, college placements, and scholarships, can give insight into the program's quality and potential long-term benefits.

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## English Language Arts

Our Sanford Middle School ELA classes hit the ground running this year! From initial assessments like the first WriteScore and FAST PM 1, to building classroom communities rooted in the MYP Learner Profile Traits, it's been a busy and productive start. Teachers focused on connecting with students, setting up supportive environments, and introducing MLA basics to build essential writing skills.

### 6th Grade Warriors: Embracing Challenges and New Beginnings

Sixth graders began their middle school journey pondering the question, "What do we do when life gets hard?" They explored this theme through powerful pieces like Sandra Cisneros's "Eleven" and "Red Scarf Girl" by Ji-Li Jiang, and they tackled survival themes with an excerpt from *Hatchet* by Gary Paulsen. Their literary adventure continued with works like Lewis Carroll's poem "Jabberwocky" and Lou Gehrig's farewell speech. In the second quarter, students moved on to explore "How do relationships shape us?" by diving into Edwin Arlington Robinson's "The House on the Hill" and "Eulogy of the Dog" by George G. Vest. They then faced their final question of the quarter, "How do you know what to do when there are no instructions?" — pairing an excerpt from Rick Riordan's *The Lightning Thief* with an excerpt about Perseus from *Heroes Every Child Should Know* for an exciting look at myths and legends.

### 7th Grade Warriors: Examining Differences and Connections

Our seventh graders started the year by asking, "When do differences become conflicts?" and exploring stories that brought this theme to life. They delved into Yoshiko Uchida's "The Wise Old Woman," Naomi Shihab Nye's poem "Mad," and Langston Hughes's "Thank You, Ma'am," as well as Susan B. Anthony's bold speech on women's rights. In the second

quarter, they transitioned to "What do we learn from love and loss?". With this question in mind, students read Edgar Allan Poe's haunting "Annabel Lee" and "Tell-Tale Heart," along with classic poems like Dylan Thomas's "Do Not Go Gentle into that

Good Night," Shakespeare's Sonnet 18, and Alfred Noyes's "The Highwayman." Wrapping up the quarter, they focused on informational texts, including an excerpt from *Flesh and Blood So Cheap* about the Triangle Factory Fire and Lyndon B. Johnson's historic address to Congress after the assassination of JFK.

### 8th Grade Warriors: Exploring Identity and the Mysterious

Eighth graders kicked off the year by examining "What makes you, you?" They investigated identity through Sandra Cisneros's *House on Mango Street* and Robert Frost's classic poem "The Road

Not Taken", then explored speeches by Franklin Roosevelt and George W. Bush, analyzing the power of rhetoric. In the second quarter, students embraced the question, "What attracts us to the mysterious?". They read suspenseful classics like Shirley Jackson's "The Lottery" and W.W. Jacobs's "The Monkey's Paw," and later delved into Poe's famous poem "The Raven." Their journey continued with fascinating real-life stories about Phineas Gage, Nellie Bly, and Alfred Hitchcock.

What a fantastic start to the year for our ELA students at Sanford Middle! From exploring thought-provoking essential questions to engaging with classic and contemporary literature, each grade has tackled new ideas and deepened their analytical and writing skills. Through stories of resilience, identity, and the human experience, our students have built strong foundations in both literary analysis and personal expression. As they look ahead to new units and texts in the coming months, we're excited to see them continue to grow as readers, writers, and thinkers.



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## Reading

Everyday our students come into class, we greet them and hold them to high expectations! Our reading mantra is as follows:

"I will **Believe** in myself"

"I will be **Respectful** to myself and others"

"I will **Achieve** my goals"

"I will be **Successful**"

Students have been working diligently towards making gains on their iReady Reading Path. Many students demonstrated growth on their Quarter 1 FAST Assessment. We are so proud of our students who continue to show up everyday and work hard to achieve their goals!

During Quarter 1, we focused on the Reading Strategy - Reciprocal Teaching (Fab 4) - predict, clarify, question, & summarize. Students can apply this strategy to any text and in all content areas.

Finally, shout out to Ms. Nieves, our ESOL Reading Teacher!!! We are PROUD to announce that Ms. Nieves was awarded SCPS Spark Award for Connections. Ms. Nieves embodies what it means to be a true Sanford Middle School Teacher by creating a learning environment full of empathy and strong structured teaching, all the while helping students of other languages and cultures acclimate to their new environment and make learning gains.

## Social Studies

This week, students had the unique opportunity to participate in a mock presidential election. We learned about all the different political parties running and some of the issues being debated. The students are eagerly awaiting the results to be announced next week. Students exhibited the IB learner traits of open-mindedness and knowledgeable as they thought about the differing perspectives along the political spectrum.

Civics students are beginning to learn about the Constitution. They have learned how we got to that point (covering early influences on government, historical events, and our first attempt at government). They are now going to learn the structure of our government, how and why it works. We are also very excited to do a mock election leading up to the actual presidential election so they can start to get a feel for the political process.

Eighth grade US history students traveled the classroom in small groups to learn about the many actions of the British government that led to the Revolutionary War. They analyzed the various forms of colonial protest to determine their effectiveness. Some classes acted out the Boston Massacre and Boston Tea Party, complete with throwing paper "snowballs". As an opportunity to act as Sons of Liberty, students created and filmed Public Service Announcements for various British Acts, encouraging "Patriots" to join the protests against Britain.

Advanced 8th grade students are busy working on their National History Day projects. They are researching the Rights and Responsibilities exhibited through various historical events and figures and preparing projects in the form of exhibits, websites, documentaries or performances. Students need to keep up with the checkpoints this quarter and will turn in the finished project soon after Winter Break.

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## Science

### 6th Grade Classes

Forces are all around us, shaping the world we live in and impacting our everyday lives in ways we may not even realize. In the science department, students are currently diving into the fascinating world of forces, exploring how they work and how they are used in our daily lives. This unit is not just about memorizing facts and figures, but about understanding how forces play a role in everything we do. One of the key aspects of this unit is **reflection**. Students are encouraged to look back on their own experiences and think about how they have used forces in their everyday lives. For example, as they walk to school, they are exerting a force on the ground with each step they take. This simple action demonstrates the concept of



force in a practical and relatable way, making it easier for students to grasp the concept and apply it to other situations.

### 7th Grade Classes

For 7th grade students, learning about electromagnetic waves can be a daunting task. These invisible waves, which include light, radio waves, and microwaves, play a crucial role in our daily lives, yet they are often difficult to understand.

However, with an **open mind**, students can approach the topic of electromagnetic waves with curiosity and a willingness to learn. By being open-minded, students can push past their preconceived notions and explore the world of electromagnetic waves with a sense of wonder and excitement. Additionally, 7th grade students can practice open-mindedness by engaging in discussions and debates with their peers. By listening to different perspectives and considering new ideas, students can expand their understanding of electromagnetic waves and develop critical thinking skills that will serve them well in the future.

### 8th Grade Classes

Atoms and elements are foundational concepts in the field of chemistry, and eighth grade students are beginning to explore these concepts in depth as they study the periodic table. As young **inquirers**, they are eager to learn more about the building blocks of matter and how they combine to form the world around us. As students delve into the world of atoms and elements, they are introduced to fundamental concepts such as atomic structure, chemical bonding, and the organization of the periodic table. They learn about the significance of the periodic table, which not only categorizes elements based on their properties but also predicts the behavior of elements and their compounds. Through hands-on activities, experiments,

and research, eighth grade students are able to deepen their understanding of atoms and elements. They are encouraged to ask questions, make observations, and draw conclusions based on evidence. This process of inquiry helps them develop critical thinking skills and a scientific mindset, enabling them to approach new challenges with confidence and curiosity.

Overall, students are constantly encouraged to strive for balance in our lives. Whether it's balancing our academics with extracurricular activities, our social lives with our responsibilities, or our physical health with our mental well-being, finding and maintaining balance is crucial to our overall success and happiness. One area where this need for **balance** is particularly evident is in the context of science fairs. Working on a science fair project often involves hours of research, experimentation, and analysis. It requires students to think critically, problem-solve, and persevere in the face of challenges. These tasks may be daunting and uncomfortable for some students, as they may be unfamiliar with the scientific process or feel intimidated by the prospect of presenting their work to their peers, teachers, and judges. However, it is through this discomfort and challenge that students have the opportunity to grow and develop valuable skills that will serve them well in their academic and professional lives.

By working on a science fair project, students learn how to manage their time effectively, set goals, collaborate with others, and communicate their ideas clearly and confidently. They also develop their critical thinking and analytical skills, as they learn to evaluate and interpret data, draw conclusions, and defend their findings. These skills are not only essential for success in science fair competitions but also in various aspects of life, such as academic pursuits, career advancement, and personal relationships. All science students should currently be modifying and testing their science fair experiments at home; don't forget to complete multiple trials. Teachers are so excited to see what students discover from their testing!



# Electives

We have a lot to celebrate in our electives department! First, Congratulations to the SMS Girls Volleyball team on winning the County Championship! Cross Country meets are set for November 6th and 13th, while cheerleading prepares for their first competition at Lake Mary HS on November 23rd. In PE, students are currently engaged in football, basketball, soccer, badminton, and tumbling routines.



The Band and Chorus Winter Concert will be on December 9th at Seminole High's KWC Auditorium. Chorus performs at 5:45pm and Band performs at 7pm. Symphonic Band will be marching in the Sanford Parade of Lights on December 14th. Jazz Band and select Chorus students will be visiting a few local elementary schools to perform a Holiday Sing-A-Long in December.

LEAP Learning Pathways students recently completed their Public Service Announcements on Internet Safety, presenting creative projects in various formats. Students were divided into groups of 3-5 students and tasked with making a PSA about Internet Safety. Groups were able to decide on the format (video, audio, or print) of their choice for their ' enjoyed seeing the creative presentations of their peers. Meanwhile, Advancing Pathways students are diving into coding with Code.Org, exploring sprites and randomizing actions in their programs, while also completing their first round of testing for certifications with Ucertify.

In eSports, students are building foundational knowledge of the competitive gaming industry by exploring sportsmanship and safe online practices. They recently designed their own gaming computers and are developing video game content to enhance their broadcasting skills. As they form teams to foster collaboration and prepare for end-of-semester tournaments, students will apply their esports fundamentals in friendly competitions for a championship title.



Finally, Marine Biology, Pre-Vet, and Engineering and Design classes are excited for their STEM Day field trip to SeaWorld on November 8th. Students will participate in engaging stations, including a behind-the-scenes look at SeaWorld's Rescue Center, learning about animal tracking technology, exploring roller coaster engineering, and discovering cetacean adaptations and echolocation. It promises to be a fun and educational experience!



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## Math

The Math Department is continuously infusing the IB Learner profile in our classrooms daily!

- Math students are OPEN MINDED to multiple ways and approaches to solve problems.
- Math students are KNOWLEDGEABLE by justifying answers to problems by showing their work.
- Math students are REFLECTIVE when making corrections on quizzes and tests and while tracking their knowledge on learning scales.
- Math students are THINKERS and COMMUNICATORS when working with their partners in the classroom.
- Math students are RISK TAKERS by explaining to the class multiple ways to solve problems.
- Students are INQUIRERS when discovering the “why” behind the formulas and mathematical rules.

Mu Alpha Theta Practices have begun. The practices are Thursday morning at 8:20 am. Please contact [marie\\_causey@SCPS.K12.FL.US](mailto:marie_causey@SCPS.K12.FL.US) with questions.

## ESE

We're thrilled to share how our ESE department is fostering collaboration while focusing on the 4 Pillars of Social Emotional Learning:

- 1. Self-Awareness**
- 2. Self-Management**
- 3. Social Awareness**
- 4. Relationship Skills**

It's been inspiring to witness the dedication and teamwork our students bring to the classroom each day as we build a strong, supportive learning community.

