

# ORIGINS

## STEM Origins Foundation

February 2026

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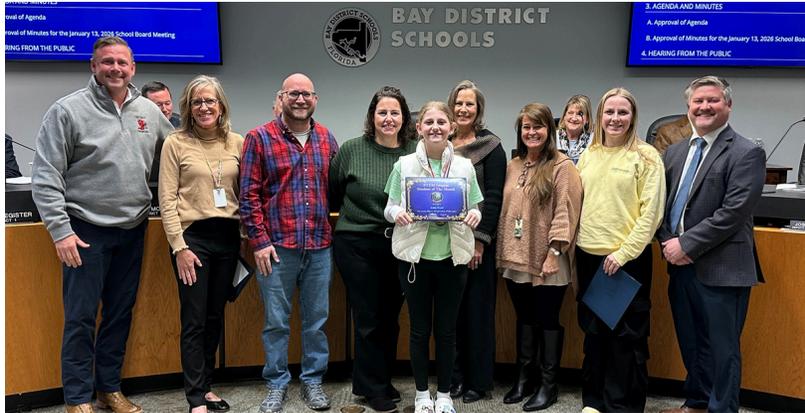
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### Addy Freel: Student of the Month

Every month of the school year, we select a STEM student in recognition of those who most reflect our core values of Passion, Diligence, and Aptitude for STEM, while also demonstrating Collaboration with others. Our January STEM Origins Foundation Student of the Month was **Addy Freel**. Addy is a 5th grade student from Patronis Elementary School who was chosen from many outstanding candidates.

During the school board meeting on January 27, Addy received a STEM Origins medal, an award certificate, and a gift card for the Texas Roadhouse. She was nominated by her STEAM teacher, Kelley Hodges, along with her classroom teacher, Andrea Kellar. These teachers were presented with a copy of Addy's award and also received a Texas Roadhouse

gift card to acknowledge their dedication and enthusiasm for teaching. Addy exemplifies STEM Origins' core values in the following ways:

**Passion:** Addy aspires to use science to make a positive impact on the world. Her love for science shines through in her eagerness to explore, investigate, and create, and she enjoys projects that challenge her problem-solving abilities.

**Diligence:** Addy consistently produces exceptional work, asks insightful questions, explores new ideas, and inspires classmates with her enthusiasm for science.

**Aptitude:** Addy applies logical, critical thinking to new concepts while working through challenges with patience, persistence, and a steady focus.

**Collaboration:** Addy shines brightest when collaborating with her peers. She communicates with respect, frequently stepping into leadership roles while encouraging and valuing others' ideas. Her patience and guidance help younger members develop into responsible stewards of the planet.

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## Meet a Volunteer: Patty Matthews, Civil Engineer

Patricia “Patty” Matthews brings 45 years of experience in civil engineering and environmental consulting to her work—and a genuine passion for inspiring the next generation of engineers.

She discovered engineering by chance in high school, when women engineers from Purdue University spoke to her calculus class. Until then, she’d never considered engineering as a career. That moment changed everything for her.

Over a decades-long career, Patty worked on a wide range of projects—from land development and transportation to water resources and federal initiatives—often

guiding complex projects through environmental review and regulatory approval.

She led multidisciplinary teams, collaborated with agencies and communities, and helped shape projects from concept to completion. Now retired, Patty is paying that early inspiration forward through the STEM Origins Foundation, encouraging students to explore STEM careers.

As she recently told some students at the CTE Career Fair, “Civil engineering can be varied, rewarding, and a lot of fun.” A Purdue University graduate and former licensed professional engineer in Texas, she lives with her husband in Panama City Beach, Florida.

## Guiding Futures at GCSC Expo

On January 27th, Bay District Schools’ Career and Technical Education (CTE) Program hosted a Career Expo at Gulf Coast State College. Because the district emphasizes the integration of technology and STEM concepts into vocational training to align with 2026 industry standards, our STEM Origins volunteer mentors—Steve Pavelitz, Scott Deon, Greg Mertz, Pam McCarthy, Brian Maxwell, Patty Matthews, and Mark Wheeler—were on hand to talk with the students, who were mostly sophomores.

Our mentors highlighted STEM career paths to interested students, offered guidance to

narrow down career possibilities, and even provided moral support as needed with one-to-one conversations where 150 students were in attendance.

We would like to extend a huge thank you to our volunteer mentors for taking time to talk with these students. [WJHG News Channel 7 reported](#) on the event as well.



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## From Chicago's South Side to Tech Pioneer

Kerrie Holley, a 2025 inductee into the National Inventors Hall of Fame, helped change how computers work together. He created a new way to build software called service-oriented architecture, or SOA. This method lets companies break big computer systems into smaller “services” that can be reused. Today, this idea helps power cloud computing and supports banks, hospitals, and even government systems around the world.

But Holley's journey began far from big tech offices.

He grew up on the South Side of Chicago, raised by his grandmother in a neighborhood facing poverty and gang violence. Life was not easy. He learned early how to solve problems and stay focused on his goals.

A big turning point came at an afterschool program called the Sue Duncan Children's Center. There, Holley discovered his love for math. He also became a mentor to younger

students. At 14 years old, he wrote his first computer program. That moment sparked a lifelong passion. Holley went on to earn degrees in math and law. He later became a top engineer and inventor at major companies like IBM and Google.



His story shows the power of mentorship, hard work, and opportunity. With the right support, students can turn challenges into world-changing ideas.

U.S. Patent No. 7,957,994  
Inducted in 2025  
Born September 7, 1954

Attribution: <https://www.invent.org/inductees>

## Upcoming Events

- **19 February:** STEM Night at Hutchison Beach Elementary
- **24 February:** STEM Student of the Month Presentation at Bay District Schools
- **10 March:** STEAM Night at Walsingham Academy
- **11 March:** STEM booth @ Latitude at Watersound Farmers Market
- **25 March:** Bay District Schools Invention Convention at GCSC
- **12 April:** Thunderbirds Air Show STEM Origins will host interactive demos
- **26 April:** Top Golf Spring Fun(d)raiser

## Prune fingers?

Fingers wrinkle in water because of a nervous system response, not because they absorb water. When submerged, nerves tell blood vessels to tighten. This makes the skin pucker into wrinkles.

Those wrinkles help you grip wet objects like tire treads grip the road. Your body is always adapting to help you function better.



## Summary of 2025 STEM Origins Annual Report

The STEM Origins Foundation released its 2025 Annual Report in January, highlighting continued growth in supporting STEM education from kindergarten through college in Bay County and nearby communities.

Our mission remains clear: inspire and equip students and teachers with hands-on experiences, resources, and connections to STEM professionals. We focus on sparking curiosity in K-5, building advanced skills in middle and high school, and creating strong pathways to college success. We also support teachers through grants, professional development, and classroom innovation pilots.

A major highlight was the launch and rapid growth of the Rising Star Scholarship Program in partnership with the Gulf Coast State

College Foundation. Originally planned for three students, strong fundraising allowed us to award \$500 scholarships to 10 fifth-grade students—one from each Bay County elementary school. These scholarships will be available upon high school graduation for STEM studies at GCSC. Plans are underway to expand to 20 students each year.

We also continued providing classroom equipment, expert classroom visits, innovation coaching, and awards for outstanding students and teachers. Grants from local partners, including the St. Joe Community Foundation and Capital City Bank Group Foundation, helped expand our impact.

This progress shows what a community can accomplish when it invests in future innovators.

## Fun(d)raising

**Spring Top Golf Fundraiser:** Mark your calendars now, and purchase your early bird tickets for just \$65 now through March 13th! The 3 hr experience of unique golf games and fun with friends will include a food buffet, soft drinks, and tips. On March 14th, ticket prices will go to our regular rate of \$78, which is still

half the price of what it would be than if you went to Top Golf on your own! (The standard retail rate for 3 hours at Top Golf on a Sunday afternoon is \$156.) Tickets can be purchased at our website: <https://www.zeffy.com/en-US/ticketing/spring-topgolf-event--2025>



**STEM Origins - Top Golf Spring Fundraiser**  
**26 Apr 2026**

**STEM Origins Foundation**

**TOPGOLF**

- **12pm-3pm:** 26 April 2026
- **3hr** Experience, w/ Food Buffet, Soft Drinks & Tips incl.

**2 Price Tiers:**

- Now - **13 Mar:** **Early Bird rate = \$65/ea**
- 14 Mar - **16 April:** **Reg Rate = \$78** (same as our last event)

**For Tickets go to:** [www.stemorigins.org](http://www.stemorigins.org) or <https://www.zeffy.com/en-US/ticketing/spring-topgolf-event--2025>

- **Great Value, Great Fun**
- Reg retail price for Sunday afternoon is \$52/hr = **\$156/3hrs**

• Also Seeking Corporate Sponsors

## Bots Invade Patronis

With a donation from the Stem Origins Foundation made possible by a grant from the St. Joe Community Foundation, students at Patronis Elementary School are utilizing Sphero BOLT Robots in the engineering design process to map a path for monarch butterflies to migrate to Mexico!

This is part of a larger “Planet Steward” project students are engaged in this year, according to STEAM teacher Kelley Hodges. The STEM Origins Foundation is proud to support the educational efforts of these dedicated teachers and their diligent students at Patronis and other schools in Bay County.



## Congratulations!

The STEM Origins Foundation congratulates Rutherford High School's Robotics team, who is heading to the FIRST Tech Challenge Florida State Championship! The Catastrophic RAMifications FTC Robotics team competed on January 24th at the AEROcoast FTC Regionals hosted at the Doolittle Institute, Niceville. The team of 13 students from 8th through 12th grade displayed skill and craft to finish the day with 9 wins from 11 matches, earning them one of just six bids to the state Championship.

The team designed, built, and programmed a robot to collect and launch a whiffle ball into a goal during a high-paced competitive match with 3 other robot teams. This is the first time any team from Bay County will be competing at the Florida State Championships, which this year will include 60 teams from across the state. The event is held at AdventHealth Fieldhouse in Winter Haven the first weekend in March.



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# Simple Ways to Spark STEM

Getting your children and grandchildren excited about STEM doesn't require a lab coat—just some curiosity and quality time! Here are a few ways to explore these concepts as the weather turns warmer:

## Science in the Backyard

- **Is it Alive?** Gather a mix of items like twigs, pebbles, or magazine clippings and have your children sort them into "living" and "non-living" piles.
- **Bubble Lab:** Grab some dish soap and household items like straws or cookie cutters. Predict what shape the bubbles will be before blowing, and experiment with how breath changes the results.
- **Seasonal Detective:** Throughout the year, collect leaves together. Compare their colors and textures to discuss how the cycle of seasons transforms nature.
- **Close-Up Views:** Use a magnifying glass to inspect an everyday object. Discuss what tiny details become visible under the lens that the naked eye misses.

## About Us

Our mission is to support local education in science, technology, engineering, and mathematics (STEM) with projects that inspire students and teachers at every level of the academic ladder from kindergarten through college.

We seek to increase the quantity, quality, and diversity of high school and college STEM graduates. Our approach involves engaging students early (K-5) to foster interest in STEM subjects and maintaining engagement throughout middle school, high school, and college with progressively advanced activities.

Programs include providing hands-on experiences, classroom equipment, and

## Everyday Technology & Engineering

- **Tool Time:** Use pitchers, funnels, and scoops during water or sand play. Talk about how each "tool" serves a specific purpose.
- **Master Builders:** Fill a bin with recyclables, blocks, or cups. Challenge them to see how high a tower can go, build a tunnel for a toy car, or work together on a collaborative project.

## Making Math Fun

- **Nature Sorting:** Collect treasures like seashells, stones, or nuts. Ask them to organize the collection by weight, color, or even how the surface feels.
- **Rhythm & Patterns:** Turn on a favorite song and try to match the beat. Use clapping and foot-stomping to help them identify and repeat the mathematical patterns in music.
- **Money:** Make a plan to save money for buying something the child wants to have.
- **Measurement:** Find a recipe and figure out how to half or double the ingredients.

access to STEM professionals through visits, virtual presentations, and coaching on innovation and long-term goals. We plan to offer scholarships for college STEM fields and STEM camps for all grade levels overtime. Additionally, we support STEM teachers through grants for career development, professional growth, and innovative classroom experiments to enhance student learning experiences.

The STEM Origins Foundation is a 501(c)(3) nonprofit organization in Bay County, Florida. IRS Certification, Articles of Incorporation, and By-Laws are available on our [website](#). Also visit us on [Facebook](#).

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