



A Circadence Success Story



Milam Elementary: Embracing Immersive Cyber Learning with Project Ares

The Situation

Laura Sheffield, Media Specialist, teaches a Media Center class to sixth grade students at [Milam Elementary](#). Located in Tupelo, Mississippi, Milam Elementary is a part of the Tupelo Public School District serving 6th grade students. Sheffield sought to elevate her class curriculum with a Community Career Connections unit to help students understand how school subjects apply to real world experiences. Part of that initiative included introducing students to the

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“From an employer’s standpoint, the need for students interested in computer science is dire,” said Sheffield.

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With approximately 30,000 computer science graduates entering the workforce per year, Sheffield realized students needed more education about IT and cybersecurity as a career option to make a small yet impactful mark on today's astounding industry challenges.

- Students at Milam needed to explore career options beyond the confines of their homes and neighborhoods to find careers beyond the limitations of their geographic area.

The Solution

- 1** To kickstart this new career learning initiative in December 2019, Laura collaborated with school parent and Circadence's Executive Vice President of Government Relations and Development, Brad Prewitt, to cultivate the school's first Cyber Day presentation.
 - a. More than 500 students participated in the Cyber Day and learned about three pillars of technology: software, hardware, and networking. Prewitt and volunteers from Circadence (Jay Weaver, Le'Quala Parker) and the Mississippi National Guard (Chief Kevin Caryle) met with students and discussed the need for computer science careers that covered areas of ingenuity, invention, maintenance, and cybersecurity.
 - b. Circadence's Project Ares, a gamified cyber learning platform, was demoed at Cyber Day and students got to see what learning lessons the platform had to offer, including Port Flow, a cyber learning game that connects ports to protocols.

- 2** In January 2020, Milam students had additional opportunity to extend their learnings from Cyber Day by partaking in the newly founded Cyber Ninja club, sponsored by Circadence.
 - a. The club seeks to cultivate student's interest in computer science by offering hands-on opportunities in computer programming, networking, and cybersecurity.
 - b. Under the direction of Jay Weaver, Quality Assurance Engineer Team Lead at Circadence, students log into Project Ares to play problem-solving games that challenge them to learn about networking and protecting servers from attacks.



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“Our Cyber Day had a qualitative impact on student learning as it provided students real-world examples of the use of math and science applied toward a future profession in our community or in the military. It also served as an opportunity to introduce students to the idea that they could be producers of technology not just consumers,” said Sheffield.

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The Benefits

Cyber Day at Milam Elementary inspired many students to ask, “What can we do now?” Project Ares provided a space for students to get their hands onto the keyboard and practice real cyber skills, making learning relevant and more engaging. The gamification element in the exercises lowered the barrier of intimidation and made learning fun.

For many students who are just beginning to think about the concept of ‘jobs’ and ‘careers’, Project Ares opened new doors for them to think about skills and future opportunities. Thanks to Cyber Day, computer science and cyber security are more concrete concepts for many Milam students.

The future of cyber learning at Milam looks bright too. They hope to incorporate more hands-on learning in its seventh grade Information Computer Technology class—and they have been a model to Tupelo Public School District, which is seeking to implement a “hackathon” cyber competition at the high school level for students to extend learning and further peak interest in the field and profession.

Little did Laura know how critical her lessons in computer technology and cyber security are, even at the elementary school level. With a staggering cyber skills gap growing in the marketplace and projections of [4 million professionals needed to fill the workforce shortage](#), Laura’s class may well have set a few of her students on strong career paths.

About Milam Elementary

Milam Elementary School is based in Tupelo, Mississippi. It provides a quality education where students are learning, achieving, and succeeding. Milam is the largest sixth grade school in Mississippi where all of Tupelo Public School District's students come together. For more information, visit <https://www.tupeloschools.com/milam>.



Milam Elementary Fast Facts



Industry:
Middle School,
6TH Grade Education



Number of students:
529



Students using Project Ares:
500



Students using Project Ares
in Cyber Ninja Club:
24

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“I am thankful for the partnership with the employees at Circadence who have volunteered time and skills to invest in the future of our students and our community,” said Sheffield.

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Project Ares is an award-winning, gamified cyber security learning platform that helps students and professionals build and keep skills sharp against evolving cyber threats. Practice and progress in the hands-on platform with foundational, intermediate and advanced cyber learning content. Its patented cyber range-as-a-service technology delivers authentic virtual machine-based exercises so cyber preparation is as true-to-life as it gets.

Visit www.circadence.com to learn more.

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Circadence Corporation is a market leader in cyber security readiness. Powered by a culture of innovation and the demands of an evolving cyber landscape, Circadence delivers award-winning cyber learning solutions featuring gamification as a tool to create engaging, immersive learning that sticks. The company has developed product portfolio that addresses cyber learning needs from security awareness to complex cyber team interaction to address critical security challenges for enterprise, government and academic institutions. Circadence's solutions deliver persistent, immersive and true-to-life experiences that match and adapt to contemporary threat environments.

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