



THE HUB

Volume 23 May 2026

The Alabama Supercomputer Authority
Newsletter

MEMBER SPOTLIGHT: MARENGO COUNTY SCHOOLS



Advancing Education Through Technology: Marengo County Schools and the Power of Strategic Partnerships

In today's rapidly evolving educational landscape, school systems must leverage technology not only to enhance instruction but also to expand opportunities for students in rural communities. Marengo County Schools has embraced this challenge by implementing forward-thinking technology initiatives designed to improve classroom learning, strengthen career readiness, and ensure students have access to the digital tools required for success in college and the workforce. Central to this progress has been the district's growing partnership with the Alabama Supercomputer Authority, which provides the infrastructure and technical support necessary to power a modern, connected learning environment.

Building a Technology-Driven Learning Environment

Marengo County Schools has made technology integration a cornerstone of its educational strategy. Across the district, digital tools and instructional technologies are increasingly embedded into everyday classroom practice. Teachers utilize interactive platforms, digital resources, and online learning systems to provide engaging, personalized instruction that prepares students for the digital demands of the 21st century.

This commitment extends beyond traditional instruction. Through innovative programming and strategic investments, the district continues expanding opportunities in career and technical education (CTE) and STEM-related fields. Technology-enabled career programs allow students to explore professional pathways through immersive learning experiences such as virtual simulations. These platforms allow students to practice skills related to healthcare, manufacturing, logistics, and workplace safety in a safe and controlled environment. Experiences like these help students build practical skills while gaining early exposure to potential career paths.

(continued on page 2)

In addition, Marengo County Schools is working to re-establish a partnership and instructional relationship with the University of West Alabama in order to continue and expand a district robotics program. Through robotics initiatives and collaborations with higher education institutions, students gain valuable opportunities to develop computational thinking, engineering design skills, and collaborative problem-solving abilities—competencies that are increasingly valued in today’s technology-driven industries. By integrating these hands-on STEM experiences into the curriculum, Marengo County Schools is helping ensure that students are not simply consumers of technology, but also creators, innovators, and critical thinkers prepared for future academic and career opportunities.



The Role of the Alabama Supercomputer Authority

A key driver behind the district’s technological capabilities is its partnership with the Alabama Supercomputer Authority. Established by the Alabama Legislature, ASA provides advanced computing resources, cybersecurity services, and high-speed network connectivity to educational institutions across the state.

Through ASA’s statewide infrastructure, schools gain access to the Alabama Research and Education Network (AREN), a high-capacity broadband backbone connecting educational institutions throughout Alabama. This robust infrastructure allows Marengo County Schools to maintain reliable connectivity for digital learning platforms, online testing, cloud-based applications, and collaborative instructional tools used daily by students and teachers.

For rural districts, this level of connectivity is transformative. High-speed internet allows Marengo County Schools to support distance learning opportunities, digital assessments, and instructional platforms that extend learning beyond the traditional classroom. These tools enable students to collaborate, research, and engage with resources that prepare them for the expectations of higher education and the modern workforce.

(continued on page 3)

In addition to network connectivity, ASA supports education through cybersecurity services, application development, and access to high-performance computing resources. These services strengthen the district's technology infrastructure while ensuring that data security and system reliability remain a top priority. On multiple occasions, ASA's network monitoring team has proactively alerted Marengo County Schools to infected IP addresses detected within our network environment, allowing district technology staff to quickly investigate and remediate potential threats. This level of partnership and oversight provides an additional layer of protection, helping the district maintain a secure and stable digital learning environment for both students and staff.

Expanding Opportunities for Rural Students

The impact of these combined efforts is particularly significant for a rural district like Marengo County. Technology has become a powerful equalizer—bridging geographic barriers and providing students with opportunities that might otherwise be unavailable in smaller communities.

Distance-learning technologies allow specialized courses to be shared across multiple schools, expanding academic offerings and maximizing instructional resources. Students can access advanced coursework, digital resources, and collaborative learning experiences that prepare them for college and career pathways that extend far beyond the boundaries of their local community.

Looking Toward the Future

Marengo County Schools continues to build on its technology foundation by expanding digital learning initiatives, strengthening strategic partnerships, and investing in emerging educational technologies. By aligning instructional innovation with robust infrastructure—supported by the Alabama Supercomputer Authority and future partnerships with higher education institutions—the district is positioning its students for long-term success in a technology-driven world.

The district's vision is clear: technology is not simply an add-on to education; it is a catalyst for opportunity. Through thoughtful planning, targeted investments, and strong partnerships, Marengo County Schools is demonstrating how rural districts can leverage technology to deliver high-quality, forward-looking education that prepares every student for the future.



Article written by:
Dr. Kevin Culpepper



Message from the CEO - Debra Wallace

Project Elevate Achieves Major Milestone

The Alabama Supercomputer Authority (ASA) recently reached a significant milestone in Project Elevate as implementation continues for more than 500 member sites transitioning internet access services through 11 telecommunications vendors. The full transition is scheduled for completion by July 1.

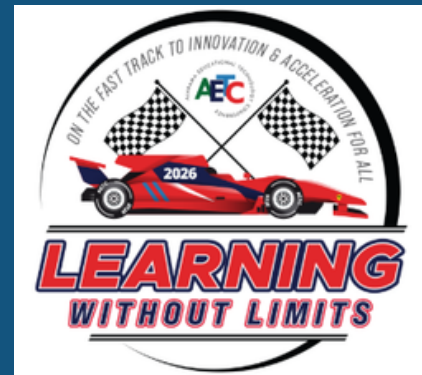
The first site connected to the upgraded AREN2 backbone was the Chilton-Clanton Public Library, marking the beginning of a new phase in ASA's effort to modernize and strengthen broadband connectivity across Alabama.

Project Elevate represents ASA's commitment to insourcing network operations while providing reliable and sustainable connectivity for schools and libraries across the state. This milestone reflects the hard work and collaboration of our team, members, and vendor partners. We are excited to continue expanding the AREN2 network and delivering enhanced services across Alabama.



June 17-18, 2026

Huntsville, AL



Exciting times ahead at AETC as ASA will provide tours of our Center in Huntsville! Please complete your registration and join us for an informative tour of our SOC, NOC and Datacenter. Refreshments and ASA limited edition giveaways will be provided!