CASE STUDY:
ANDREW LEWIS MIDDLE SCHOOL

Introduction: An Expanding Computer Science Program

Andrew Lewis Middle School, the 6th through 8th grade chapter of Salem City Schools, is located in Salem, Virginia. Two years ago, Assistant Superintendent Curtis Hicks was searching for an AP Computer Science course that could be offered in an online, blended learning environment. When Virginia became the first state to require computer science credit for high school graduation in 2016, incorporation of computer science curriculum became vital. The district reached out to the Edhesive school partnership team, working to incorporate both our AP Computer Science A and Introduction to Computer Science courses.

The administration began to search for a teacher who could work to create and expand the growing K-12 program. With a background both in elementary education and administration, Megan Graybill was chosen to fill the position. “We really just wanted to take these seeds and make them grow,” offered Graybill. “The new computer science standards had just been approved, and we knew that the expansion needed to begin as early as Kindergarten.” For the 2017-18 School Year,
Andrew Lewis Middle School added Edhesive’s Explorations in Coding course to their offerings at the 8th grade level. “It’s very important to integrate computer science as early as possible,” explained Graybill. “By the time students have reached high school, they are already looking into a career path and focusing on specific subject material. They need courses like Explorations in Coding to be offered in middle school. If computer science is offered earlier, students get a chance to experience the wide range of career opportunity in technology. Then, they can be more specific about their interests and elective choices at the high school level.”

Implementation and Success at Andrew Lewis Middle School

When Graybill began to facilitate Explorations in Coding, she was new to the world of computer science. “Edhesive is a great starting point, especially for teachers who don’t have a background in computer science,” she informed. Graybill began to learn the course alongside her students, quickly realizing that hands-on projects can deepen and enrich the student experience. “In addition to the Edhesive curriculum, we’ve added cyber security projects, robotics, hardware experience, and various research projects, such as career research and the history of computer science to middle school program,” she added. “There can be a stigma around computer science in the younger grades. Some students think that it isn’t cool, and don’t want to admit that they actually enjoy programming. When we add a hands-on element, such as visiting the Makerspace lab for a design and thinking project, students can’t help but admit that computer science can be really exciting.”

Graybill also noted that she appreciated the collaborative aspect of the online curriculum, both in Explorations in Coding and the more advanced Introduction to Computer Science and AP Computer Science A courses. “The students are able to work together and help each other as needed. They can learn and apply the language quickly, especially when they can run all of their code within the Edhesive platform.” She also mentioned that the program has been easy to navigate, allowing her to dive into the curriculum quickly. “The student and teacher forums have been very helpful, and, of course, the Edhesive support team has always been timely and informative whenever I’ve had questions,” she reported.
Reflection

Andrew Lewis Middle School is building a robust computer science program that includes not only Explorations in Coding, but many additional technology courses and clubs, such as Computer Solutions, Technology, Introduction to Engineering, Introduction to Computer Science, Girls Who Code and Robotics. “It’s all fun,” Graybill expressed. “We’re even planning to add cyber security and game design courses to our high school offerings next year.” Graybill believes that computer science is a necessary subject of study that will become as standard as reading and math. “It’s a gateway tool that every student needs in order to be successful in any career. The computational thinking and problem solving skills are irreplaceable. We’re really proud of what we’re doing here, and we’re excited to be one of the first schools in Virginia to integrate a computer science program from K-12.”

Outcomes at Andrew Lewis Middle School

- Students at ALMS are being exposed to a wide range of computer science offerings, including Explorations in Coding.

- Salem City Schools has incorporated three Edhesive courses, including EIC, AP CSA, and Intro CS.

- The incorporation of hands-on activities in EIC has gained the interest of students with multiple learning styles.

Highlights for Teachers

- Edhesive courses can easily support teachers without computer science backgrounds.

- The student and teacher forums create a collaborative environment within the Edhesive school community.

- The Edhesive support team is a helpful resource, and always responsive to teacher questions.

Edhesive makes online learning accessible, personal, and meaningful. We combine online instruction from nationally recognized experts with the personal support of local teachers, who offer students face-to-face guidance and support.

Ready to find out what’s possible for your school? Email us at info@edhesive.com today.