

ASPIRE PUBLIC SCHOOLS

CODE ASPIRE

CONNECTING STUDENTS TO STEM THROUGH CODING AND TECHNOLOGY

“In order for us to prepare all students to get to and through college, we must take a greater responsibility to ensure that they can use technology in increasingly sophisticated ways to access information; communicate and collaborate; problem-solve; innovate; and learn technology concepts, systems, and operation.”

LIZ ARNEY, ASPIRE PUBLIC SCHOOLS

KEY FEATURES:

- ✓ New School
- ✓ Station Rotation Blended Model
- ✓ STEM and Computer Science

AT A GLANCE:

Start Date: Fall 2013
Grades Served: K-8
Location: Memphis, TN
Operator: Aspire Public Schools
Operator Type: Charter
Setting: Urban
Students at Start: 331
Students at Capacity: 564

MODEL TOOLBOX:

Student Information System & Gradebook: PowerSchool

Assessment Tools and Approaches: MAP, i-Ready ELA Diagnostic, Mastery Connect

Digital Content Providers: i-Ready (ELA), eScience 3000, Aha! Science, EasyTech, DreamBox, myON

Hardware: Google Nexus Tablets, Dell 3330 Laptops, Dell ChromeBooks

Aspire Public Schools is bringing 13 years of experience operating high-performing public charter schools in California to Memphis, Tennessee. By combining its proven College for Certain model with a focus on computer coding, Aspire Public Schools plans to work in the Achievement School District in Memphis to open 10 schools in five years and to transform Tennessee's bottom 5 percent schools into schools that perform in the top 25 percent. CODE Aspire is Aspire's first K-8 blended learning school in Memphis. Beginning as a K-5 school and scaling up to K-8 by year four, CODE Aspire offers a rich STEM-focused education, individualized technology, rich learning opportunities, and explicit instruction in computer coding skills.

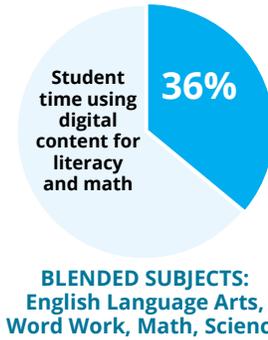
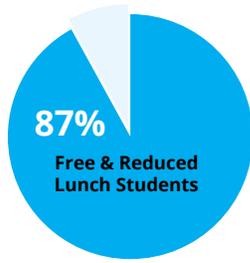
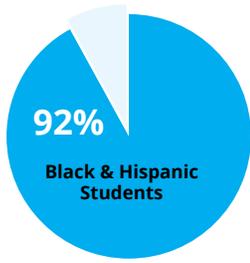
CODE Aspire is committed to teaching all kids strong computer coding skills so that they will be able to better understand the digital world around them, think logically, express themselves creatively, learn to troubleshoot their own problems, and feel empowered. CODE Aspire believes that coding:

- Teaches problem-solving skills
- Provides students with practical application opportunities
- Mirrors learning a foreign language
- Stimulates creativity
- Fosters authentic learning
- Teaches students how technology works
- Promotes collaboration
- Thrives as a discipline
- Can spark student interest in STEM majors and careers

CODE Aspire puts the students at the center of their own learning and focuses on meeting each student's academic needs by creating individualized learning plans for each student. These personalized learning plans (PLPs) provide teachers, parents, and students with a common understanding of the student's learning style, progress and objectives.

The blended school offers classroom rotations in K-5 during which students spend 25% of the instruction time using adaptive learning software. These K-5 classrooms are built almost exclusively on a small-

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BY THE NUMBERS:

Year 1 public revenue per pupil:
\$8,603

Year 1 expenses per pupil:
\$9,482

Year 4 revenue per pupil:
\$9,105

Year 4 expenses per pupil:
\$8,982

Years to sustainability: 2

group model, during which students can receive differentiated instruction from teachers and via online learning stations.

The instructional model in middle school (grades 6–8) is STEM-focused and moves from a rotation environment to a one-to-one, project-based environment. Students continue to benefit from data-driven customized learning plans that allow them to pursue educational opportunities that transcend grade level. For example, teachers’ use of structured data and multiple software programs allow students with different math pro-

iciency levels to receive instruction simultaneously in a single classroom.

Because CODE Aspire is a STEM-focused school, science instruction drives scheduling. Aspire aims for all of its students to be proficient in algebra and all students take two years of Java by the end of grade 8. Teachers engage students in authentic studies of science through online inquiry units, digital simulations, STEM gaming, and virtual labs to move the study of science from the textbook to a hands-on, inquiry-based approach.

Students will be fully prepared to succeed in a variety of college prepa-

ratory high school options, including fully online high schools, blended learning high schools, and online college courses offered in conjunction with high school.

CODE Aspire aims to advance digital age learning through the use of adaptive learning programs, coding instruction, technology-driven and common core-aligned projects, and explicit instruction in information fluency and digital citizenship.

CODING ACROSS THE CURRICULUM

Grade	% of Time Online	Classroom Rotations and PBL	Coding Applications Expectations	Coding Language Expectations
6th	30	Science simulations and virtual labs in a project-based setting. ELA and math classroom rotations using adaptive software, and a Google Docs-rich environment.	Students learn Scratch to create apps that do something	Students learn HTML to build websites that use text
7th	30	Science simulations and virtual labs in a project-based setting. ELA and math classroom rotations using adaptive software and a Google Docs-rich environment.	Students learn Java to create apps that do something and take input from someone	Students learn PHP or Python to build websites that use texts and graphics
8th	50	Science simulations and virtual labs in a project-based setting. ELA and/or math classroom rotations, depending on student achievement data and interest. Google Docs-rich environment.	Students learn Java to create apps that do something, take input from someone, and then take a database and persists. This might also include using coding to operate robots.	Students learn PHP or Python to build websites that use text and graphics and manipulate things (like robots)

FOR MORE INFORMATION:

School URL: <http://aspirepublicschools.org/schools/regions/tennessee-schools/>

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