
TOOLS THEY USE
ASPIRE PUBLIC SCHOOLS
► Chromebooks
► DreamBox
► ST Math
► i-Ready
► Lexia Learning
► myON
► Newsela
► Schoolzilla
► Think Through Math

EARLY EXPOSURE IS CRITICAL

At a recent STEM Showcase evening at Congress (AZ) Elementary School District #17, Caitlin Hunt’s kindergarten-student meteorologists impressed visitors with their weather reports using VoiceThread. That was just in kindergarten, “Come visit our school and see what the future is doing right now,” says superintendent and principal Dr. Stephanie Miller.

Congress Elementary is a 1:1 district with a full-time IT specialist. A grant from Science Foundation Arizona (SFAz), with funding from the Helios Foundation, enabled the school to use DefinedSTEM to support teachers transitioning to cross-curricular, project-based STEM teaching. Three years later, students often stop Miller in the hallway to share products and career aspirations, and she hears even the youngest students using more focused, academic vocabulary. Throughout the school, the cross-fertilization of re-engagement between students and teachers is infectious. The learning doesn’t stop when the bell rings, either, as extracurricular activities include robotics and a STEM/Drama Club.

Technology Lags

Fifth graders designing complex machines to be used on Mars were disappointed, teacher Cheryl Middleton says, that the online technology wasn’t available for them to create 3D models. Because resources sometimes promise more in terms of usage and content than they deliver, Miller notes that it can pay to use professionally developed tools (e.g., DefinedSTEM, ST Math, VoiceThread).

Real-World Applications

“Engagement and learning are increased when study tools support real-world application,” says Miller. At Congress, for example, Kathy Wood’s sixth-grade class partners with a local business and a STEM expert to practice engineering and design skills, and fifth-grade math students go online to IKEA to investigate the metric system and plan spaces. While state testing scores have increased, it’s perhaps even more exciting to consider the crossover and rigorous and active learning that these kinds of projects model. In the words of one parent at the STEM Showcase, “Wow, these kids really own this!”

Technology Lags
Real-World Applications
TOOLS THEY USE: Congress Elementary School District #17
Code.org
DefinedSTEM
digits
Document cameras
FOSS kits
Lenovo ThinkPad Tablet 2 with Windows 8.1 (grades 5–8)
Lenovo ThinkPad Yoga 11e with Windows 10 (grades 3–4)
Microsoft Office 365
Samsung Galaxy Tab 4 with Google Play for Education (K–2)
SMART Boards
Study Island
Typing Agent
VoiceThread