

Albertville City Schools unveils STEM Bus

- By NICKIE SIMPSON The Reporter
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Albertville Intermediate School Principal Robert Sims (right) shows Alabama Board of Education District Representative Cynthia McCarty (left) the technology featured on the Albertville City School System's STEM Bus.
The Reporter | Nickie Simpson



Albertville Intermediate School on Evans Campus' principal, vice principal and teachers received training on the numerous types of state-of-the-art technology featured on the school system's STEM Bus. Pictured are the teachers as they check out the virtual reality headsets.
The Reporter | Nickie Simpson

The Albertville City Schools (ACS) unveiled its STEM Bus in February.

Albertville Intermediate School on Evans Campus Principal Robert Sims said the school has approximately 930 students and every student would be able to use the STEM Bus twice a month for their entire science class period.

"Just for the students to be able to come out to experience the virtual reality, the lab disks, two 3-D printers and all of the technology — everything in one little spot — I'm glad our students have the opportunity to experience this cutting-edge in education," Sims said. "This is the first one of its kind in the

State of Alabama. We're just excited to have this for our students, and to be able to have training through PowerUp EDU for our teachers is fantastic."

According to Sims, the teachers had extensive training on the STEM Bus in preparation for the students. PowerUp EDU Professional Development Consultant Maggie Phillips said the STEM Bus had class VR (virtual reality) with a teacher portal that would direct all of the headsets to one image. She said this was great for learning because the teachers could create a focal point so that the students' line-of-sight is on whatever the subject is. To keep the headsets sanitary, the bus has a built-in UV charging cart, which will clean the headsets between student groups.

Also, on the STEM Bus, Phillips said there are Labdisc. She said the Labdisc portable lab opens the door to inquiry-based learning in a variety of science fields, which helps students connect and engage with science. She said the all-in-one, complete lab is a wireless, compact data logger for every science, with up to 15 built-in sensors. Since its next generation wireless technology, she said the Labdiscs could be used indoors and outdoors. There was zero setup time, with automatic sensor testing and calibration with more than 150 hours of battery life, she said. There are interactive, multi-disciplinary experiment books for K-12 that integrate with the latest technologies for the digital classroom, she said.

"Labdisc offers science parameters — environment, general science, physics, biology and chemistry," Phillips said. "This replaces the breakable things you might see in a traditional STEM lab — like thermometers, beakers, test tubes — and they collect a variety of data using sensors that are built into the device with accompanying probes. So, if you wanted to know the ambient temperature, the volume in decibels, the UV concentration of air, measure distance or how fast something is going — there's just a lot you can do with it. It's a really powerful way to collect data, and it all syncs to an iPad."

The STEM Bus also boasts the zSpace learning experience, Phillips said. As a hardware and software solution, she said zSpace delivers an interactive experience by integrating the latest AR/VR technology in an all-in-one computer. She said zSpace utilizes three sensory characteristics to create a natural and intuitive product — perception of depth, ability to look around, kinesthetic realism.

"In the STEM buses we've seen, this is the best of the best," she said. "This is our only STEM Bus in Alabama, and we're just incredibly impressed with the work that's been done on it."

Since the STEM Bus's technology is user-friendly, Phillips said it would only take a few days to train teachers well enough for them to be ready for students. Sims said the teachers could set up an outdoor tent or use the former scout hut outside of the school to use as an additional STEM lab.

Alabama Board of Education District Representative Cynthia McCarty visited Thursday, Feb. 20, to tour the schools and STEM Bus. She said she was impressed.

“This is amazing, and I am so proud of Albertville City Schools and in the collaboration with Maggie and her team [PowerUp EDU] to bring this for our students,” McCarty said. “It’s awesome. I wish I’d had this when I was younger. This application, this hands-on learning, to me is so powerful for the students, and it’s just a positive experience.”

Albertville Superintendent Boyd English said he couldn’t wait to see the ACS students learn and grow their education through the STEM Bus.

“I’m excited for expanding opportunities for students,” English said. “I think Dr. [Robert] Sims and his team are going to enjoy it for about nine months and at that time we’ll continue to expand STEM opportunities for students both here [on Evans Campus] and at Albertville Middle School.”

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