



OAK RIDGE SCHOOLS

LOCATION: Oak Ridge, TN

ENROLLMENT: 4,700

SCHOOLS: 9

TEACHERS: 334

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“ Providing technology like Epson 3LCD projectors is one of the best tools we can provide our teachers to help ensure the best educational environment and learning opportunities for our students. ”

—Ray Thach,
Director of Technology, Oak Ridge Schools

Oak Ridge Schools Power Up Classrooms With Epson 3LCD PowerLite® Projectors and Tablet PCs

Oak Ridge, TN has always been on the forefront of scientific research, so it's no surprise that Oak Ridge Schools are a step ahead in classroom technology using networked Epson 3LCD projectors and tablet PCs. Located in the Cumberland Mountains of East Tennessee, Oak Ridge did not even exist until the U.S. government brought in 75,000 people for the top-secret Manhattan Project in 1942.

World War II has long since ended, but many grandchildren of those first residents now attend the city's preschool, alternative school, 4 elementary schools, 2 middle schools and high school. "The crown jewel in this community of 27,000 is the Oak Ridge school system," said Ray Thach, Director of Technology for Oak Ridge Schools, which serves 4,700 students and employs 334 teachers. Oak Ridge public schools are often cited as among the nation's best. *The Wall Street Journal's Offspring* magazine listed Oak Ridge Schools among the top 100 in the country and number two in the southern region in 2000.

Networking Epson 3LCD Projectors and Wireless Tablet PCs

Three years ago, the Oak Ridge community voted to raise the local sales tax to help fund a \$60 million high school renovation. One of the highlights of the reconstructed Oak Ridge High School is a new high standard in classroom technology.

“By communicating wirelessly with our network, the tablet PC output can be directed to any Epson 3LCD PowerLite networkable projector on the high school campus.”

The focal point of the Oak Ridge Schools' classroom model is a ceiling-mounted projector linked to the district's high-speed local area network in each of the 104 new high school classrooms. "Oak Ridge teachers now have access to a vast array of technology tools, including wireless tablet PCs, document cameras, enhanced audio, and classroom response systems — all of which are focused around the Epson 3LCD PowerLite projector," said Thach.

Replacing older PCs and laptops, the school equipped each teacher with a wireless tablet PC. The teacher uses a digitizer pen to write on the screen of the tablet PC, which immediately sends the data wirelessly to the main wired network, which in turn sends it back to the projector. As a result, the teacher can freely walk about the room carrying the tablet PC and use the projector to show whatever is on the tablet screen.

"By communicating wirelessly with our network, the tablet PC output can be directed to any Epson 3LCD PowerLite networkable projector on the high school campus," said Thach.



His technology department can also monitor, troubleshoot and control projectors remotely using Epson's exclusive monitoring software. Although Oak Ridge Schools link their Epson PowerLite® projectors via a wired Ethernet LAN module, the projectors can also be configured to take full advantage of the included 802.11a/b/g wireless interface.

Using an intelligent remote, a teacher can easily choose among multiple projector input sources to create an engaging multimedia classroom experience. A single click switches from one source to the other, including the tablet PC, DVD/VHS player, the Internet, or the school's in-house cable system. "When there's a projector in the classroom, it becomes an integral part of the school day's routine, as important a tool as lesson plans and textbooks," said Thach.

Making the Switch

In choosing the projectors, Thach looked for features such as a minimum 1024 x 768 resolution, 2200 lumens of color and white light output,* and the ability to source video over the network. "I also wanted to simplify the most essential steps of operation such as powering up, getting connected and shutting down," said Thach.

He was especially intent on finding a projector with a "no cool-down" feature. "Over the years, I've lost many projector lamps when someone tripped over a power cord or we had a building power failure," he said. He found that the Epson Instant Off® technology allowed staff to turn off and unplug the projectors immediately, and safely, without a cool-down period.

3LCD Technology

Another plus is 3LCD technology, which brings true-to-life image quality to Oak Ridge classrooms using an optical engine that works without

a moving color wheel. From the moment the teacher clicks the remote, the Epson 3LCD PowerLite projector delivers accurate color registration with detailed video and data images.

Thach did not see the need to purchase projectors without dust filters. "It is not a big deal for our custodians or technicians to pop out the dust filters and clean them on a periodic basis," he said. The Epson 3LCD projectors also offer up to 50 percent more lamp life than competitive models.**

"All these features are critical, but you can't just buy this technology and turn it loose in the classroom," said Thach. "If it's not dependable, and if we don't train teachers to properly use it, they won't take full advantage of it." He has found the Epson projectors to be highly reliable with very low maintenance requirements.

Moving Forward

"When I first arrived here four years ago, every piece of computer equipment the school had ever purchased was still in use," said Thach. "Today, the latest technology is such an integral part of our classrooms that if access to the Internet goes down, the teachers might well want to call the buses and send the students home."

The mission of the Oak Ridge Schools is to provide all students educational opportunities to acquire the knowledge and skills necessary for a productive future. "Next, we plan to expand our 21st century classroom model into our two middle schools," said Thach. "Providing technology like Epson 3LCD projectors is one of the best tools we can provide our teachers to help ensure the best educational environment and learning opportunities for our students."

Epson America, Inc.
3840 Kilroy Airport Way • Long Beach, CA 90806
1-800-442-1977 • www.epsonbrighterfutures.com

*Light output varies depending on modes (color light output and white light output).

**Lamp life results will vary depending on mode selected, environmental conditions, and usage. Lamp brightness decreases over time.

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