Schools Where Technology

Works for Learning

Video script

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Newsome Park Elementary

It used to be that a school was considered cutting edge if it was "wired." Now, some schools are taking a new approach. They've decided to go "wireless."

Newsome Park Elementary in Newport News, Virginia is a school that's "unplugged." But if you use one of their laptops to access the Newsome Park web site, you'd find that the school's mission isn't to put an iBook in the hands of every elementary student. Their mission is nothing less than to transform education. To do that, they're using student interests and discussion to drive project-based learning.

Newsome Park Elementary is a K-5 magnet school in math, science and technology. Of its 770 students, 60% are minority. Since opening in 1995, the school has emphasized an educational approach that provides relevant, real-world experiences for students.

Today, students are performing significantly better on the SOLs. They're more enthusiastic and more interested in learning. Parents are so impressed with what the school has accomplished that there's a waiting list for this magnet school.

These outcomes coincide with the changes that began during the 1999-2000 school year. That's when project-based learning, a constructivist approach supported by technology began to take center stage in Newsome Park classrooms.

The project-based model of instruction changes how the curriculum is delivered and organized. Students at Newsome Park learn by participating in projects. Student interests are used to generate ideas and help define the projects. Some projects are semester-long. Others are shorter. Most are interdisciplinary. The projects have three distinct phases: planning, fieldwork and share the experience.

In the Planning stage, students define their prior knowledge of a topic and raise questions. In stage 2, Fieldwork, students work together in teams to investigate the topic, share knowledge, test theories and critique their findings. In stage 3, students Share the Experience with the outside community, defend their findings and formulate new questions.

Technology plays an important role in each stage of a project. That's where the wireless computers come in. Prior to the 1999-2000 school year, each classroom had four stationary IBM 486 computers with software and interactive courseware. The computers were used sparingly for drill and practice. Y2K concerns gave the school the opportunity to select new technology tools that would bring added value to the teaching and learning process.

To support project-based learning, the school installed a wireless network with an Apple Macintosh platform. Because the laptops are portable and battery-powered, they can be used anywhere in the classroom and still be connected to the Internet ... as long as they are within the range of a ceiling-mounted teleport. In fact, they can be used at any location in the school and up to 150 feet outside the building. And, because files are saved at a central network location, they've eliminated problems associated with loading and moving files.

The educational technology infrastructure at Newsome Park includes 25 stationary iMac computers installed in the technology lab. Each classroom has three laptops and an iMac with a DVD drive. There are 12 additional iBooks available for checkout in the technology lab. Each classroom also has a color printer and a telephone. A wide range of peripheral equipment is available from the technology lab. To keep things running smoothly, a two-person technology staff provides software integration support, training and troubleshooting.

The software used at Newsome Park Elementary includes integrated applications such as spreadsheets and word-processing tools, multimedia software such as PowerPoint and communications software such as Netscape. Students creatively use these tools to find information, collect data, chart results and create products.

> It's the first time I've used it to really show what we've done…through the digital cameras and the PowerPoint and then their word processing the desktop publishing. They are excited because they love doing it. Especially in K and 1, they really need to write and need to draw and color. They need this kind of technology first but they are excited when they get to show what they did here. It looks professional and they want to show their parents. To them, it was a great way to show off all the hands on stuff.
> -- Kelly Kent Johnson, K-1 Teacher

Each week, teachers complete a work plan. These plans identify the standards to be addressed and outline the concepts, skills, questions and assessment strategies related to the curriculum area.

An outside vendor called FutureKids provided 45 hours of customized, hands-on instruction to teachers. All teachers successfully completed this vital professional development training. Today, the teachers at Newsome Park not only work together on interdisciplinary projects, they also share ideas about the use of technology and related instructional issues.

> With that template in mind and their schoolwide leadership---there were teachers involved from each grade who were on this leadership team---it was that in combination with a class that they took. Over two years the entire staff took the class in a couple of groups. So at the same time that they were making a commitment to project based learning in a particular format, they had school wide by in to do so, they also took a class together about using technology. It was the combination of those things that allowed them to have tools and time and shared discussion about how to enact the projects, and the leadership and support for doing so. So it was really those three things coming together: the model for project based learning , the class about using technology and how it could support projects and school wide commitment and leadership for making that come together.
> -- Sara Dexter, Project co-Director

Video Credits

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