

Schools kick up their tech a notch

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Each student in the seventh-grade Honors Science class at Freeport's J.W. Dodd Middle School, wearing headphones, listened intently to a lesson about cell membranes and followed along on his or her custom Chromebook computer, open at their lab stations.

When the bell rang, they gathered up the laptops and headed to their next class. The students, along with their schoolmates in grades five through 12, also take the Chromebooks home, where they can use remote connections to communicate with teachers and complete assignments.

"It makes it so much easier," said seventh-grader Cassie Smith, 12.

"The students love them," said Johane Ligondé, the middle school's principal. "It levels the playing field for them. They don't have to worry about not having the tool to be able to learn."

\$2B from state for updates

Freeport's one-to-one Chromebook initiative is just one of the ways that local school districts have spent millions allocated through the Smart Schools Bond Act, approved by voters across New York in 2014. The act authorized \$2 billion statewide to finance updating and installation of infrastructure and technology.

So far, the extra funds have been paid for upgrades to security, connectivity and improved or added hardware and software in public schools. On Long Island alone, more than \$30.9 million in technology expenditures have been approved in nearly three dozen districts, according to data from the New York State Association of School Business Officials. Statewide, about \$215 million in projects have been approved, the state Education Department said last week.

In both Nassau and Suffolk counties, hundreds of upgraded interactive electronic whiteboards, called smart boards, which typically cost \$2,000 and up, have been installed in classrooms, while countless iPads and Chromebooks have been handed out to students.

It has brought transformative change, said North Babylon Superintendent Glen Eschbach, with an infusion of technology that moves the district from



Freeport seventh-grader Clohie Clarke, left, uses a Chromebook (and old-fashioned pen and paper) in class at J.W. Dodd Middle School.

"the 19th century to the 21st."

In Freeport, where the system's 6,800 students receive free breakfast and lunch, the district never could have afforded such upgrades on its own annual budget, school officials said. State bond funds have provided for more than \$3 million in added technology so far, with the district's Chromebook project representing the largest expense.

"We can use it for extraordinary purposes," Superintendent Kishore Kunchum said.

Chromebooks, 'smart tables'

Last school year, 2,230 Chromebooks were distributed to Freeport students in grades nine through 12. This school year, 2,095 additional Chromebooks were given to all students in grades five through eight. Staff members also have received the laptops.

Students do not need a book to learn something, Dodd Middle School science teacher Vanessa Vidalon noted.

"They can look at something, touch something, feel something through trial and error and get a feel for what science is — so they really have to explore their own learning," she said.

Student Cassie Smith said using a Chromebook in class helps her see a microscope lens more clearly. Plus, having the resources of the internet at her fingertips means that if she

doesn't understand something, "you can look it up to make sure," she said.

The South Country district is making a similar effort. Chromebooks have been assigned to each student in grades three through 12 and "smart tables" have been installed in kindergarten through second grade.

More than \$2 million in bond funds is being used for the upgrades, which started last year. The next phase will see 170 more smart boards put in classrooms. In addition, the district is awaiting approval from the state Education Department to purchase and distribute 505 touch-screen Chromebooks for classrooms in kindergarten through second grade.

"We were hoping to have the touch screens last year, and we still don't have them," Superintendent Joseph Giani said.

Frustration at backlog

Smart Schools applications must go through the Education Department and be approved by the Smart Schools Review Board. The process can take longer if the proposal includes a capital project that also requires authorization, said Michael J. Borges, executive director of the New York State Association of School Business Officials.

"The state Education Department has taken steps to address backlog in approving capital

projects, including those funded by Smart Schools Bond Act, but those remedies have yet to reduce significantly delays in the approval process," Borges said. "The problem is lack of professional staff to review the projects, a Civil Service system that inhibits recruiting qualified staff, and an antiquated filing system that lacks a web-based portal for submitting projects."

Education Department officials noted that for schools outside of New York City, nearly half of all approved funding — about \$215 million so far — has been budgeted for classroom learning technology. The proposals go through intensive internal review by the staffs of the Smart Schools Review Board members.

"Staff works to ensure that the submitted plans are reasonable, consistent with the requirements of the law, and will be eligible for tax-exempt financing as approved in the referendum," according to the department.

Officials in the North Babylon district said the bond funds made possible about \$1.2 million for connectivity and \$1.9 million for classroom technology in their district. If not for the bond money, a project of that sort would equate to a 4.65 percent tax levy increase, Eschbach said.

Each classroom in the 4,700-student system, about 350 in all, received a 70-inch interac-

tive flat-panel touch board, a new desktop computer hardwired to that digital board, and a document camera, with which a student or teacher can place a piece of writing that then is projected and can be edited. Projects also included new fiber hard-wiring and switches.

'Inquiry-based learning'

"It opened opportunities to use inquiry-based learning and brings education to the world that the kids are living in now," Eschbach said. "And our plan is to teach kids how to be critical thinkers and problem-solvers — no longer is it when you just memorize facts."

Officials in the Sewanhaka Central High School District in the Floral Park area have bought about 8,500 iPads. Over a three-year period, one has been given to every student in seventh to 12th grade, as well as to staff members. The \$2 million-plus project is in its final phase in the system that serves about 8,000 students.

Brian Messinger, the district's coordinator of classroom instructional technology and student achievement, said the initiative is changing education.

"The teachers have really embraced it. . . . We have an increasing number of our classrooms that are completely digital and completely paperless," he said.