

# News Journal, The (Wilmington, DE)

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## **4-H changes for high-tech kids**

### **GPS hunts, forensic science and DNA supplant tomato, chicken growing**

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Eleven sets of eyes stared at the tiny screens of two hand-held GPS units.

An arrow on each of the screens guided a cluster of children along a split-rail fence on the campus of the University of Delaware's College of Agriculture.

They were looking for a clue that might crack the case. It was sitting under a rock near the fence. And they were getting close to it.

These children, ages 8 to 12, were at a weeklong 4-H camp in Newark. But instead of raising chickens and weaving baskets, they were trying to figure out who killed Professor Halftrack, an imaginary homicide victim.

The murder mystery - which is solved by tracking down clues hidden throughout the campus each day - was the creation of Mark Manno, the 4-H extension educator at UD who designed the programming for the 4-H Biotechnology Camp. To find the clues, they used Global Positioning System units.

"It's math and they don't even know they're learning it," Manno said. "You give them one of those things and they love it. You give them a pen and paper and they hate it."

The GPS units signal a shift in the mission of one of the largest youth organizations in the country. 4-H, it seems, is not just for farm kids anymore.

Joy Sparks, Delaware's state 4-H leader, said 4-H is no longer "just cows and cooking."

"We teach everyday life skills," she said.

Kenneth Bell, provost and vice president for academic affairs at Delaware State University and a previous dean of the college of agriculture, said those skills have changed since 4-H was established.

"Everything young people do today is linked to technology, in one way or another," he said.

Of the projects 4-H members work on, the most popular are the ones that involve science and technology, 4-H Marketing Communications Director Gwyn Donohue said. Nearly all of the 6.5 million kids in 4-H nationwide are currently working on at least one science and technology project, she said.

At the camp in Newark, in between looking for clues with the GPS units, the kids learned about forensic entomology, dominant and recessive genes and DNA gel electrophoresis, topics often not breached by science teachers until high school.

"Yesterday I got to tear apart a dead chicken," said Frank Donley, 8, when asked what he liked most about camp.

Donley analyzed the bugs that had taken up residence in the carcass to determine how long the bird had been dead.

Jacob Gaz, 9, simply couldn't wait to solve the murder mystery.

Back at the split-rail fence, the group of children dispersed to look for the clue, written on a piece of paper. Gaz found it almost immediately. The GPS unit had brought them to within 10 feet of it.

Today the children are visiting a dairy farm. They'll learn how cows are bred, raised and milked. But the highlight of the day, Manno said, involves reaching inside a fistulated cow.

The cow, which is alive and well, has a hole in its side, cut by research scientists to study the contents of its stomach. Manno said the cow won't mind having its stomach groped. And the children will wear rubber gloves.

"This is not your father's 4-H anymore," he said.

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#### WHAT 4-H IS

Founded near the beginning of the 20th century as a partnership between the government and the American farming industry, 4-H set out to teach kids about innovations in farming technology so that they, in turn, would teach their parents, said Joy Sparks, Delaware's state 4-H leader. Over the years, it developed a provincial image as a club for kids who raise chickens, grow tomatoes and sew dresses.

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