



# Staff teams up to help teach science



photos by RANDY DORST/staff photographer

Konbrook Elementary fifth graders Sarah Kutschke (left), Stephanie Hancock and Hana Lakocaj work on a heat transfer experiment.

By Casey Hans  
staff writer

**T**EACHING SCIENCE to Farmington Public Schools fourth and fifth graders emphasizes hands-on experience and a team approach.

"We consider it teaming with the teacher," said Doug Cooper, Farmington science coordinator, discussing the two-year consulting pilot program for fourth and fifth graders, which became districtwide this year.

"We have the advantage of two people (teacher and consultant) to answer all the students' needs and questions."

Three full-time science consultants work with fourth and fifth grade teachers enhancing the science experience for children. They visit each classroom once per week, acting as a "science springboard" for teachers, Cooper said.

Consultants provide teachers in advance, with weekly planners of activities, roles, objectives and followup classroom ideas. Teachers can then mix these hands-on specialties with

traditional textbook programs.

**IN ADDITION**, the consultants help Cooper order and organize hands-on materials stocked at the district's Science Resource Center located in Wood Creek Elementary School. Live things are also cultured at the center for classroom use.

Author of the program is Kathy McAdams, current consultant who began piloting the program in 1983-84 at four schools. Newly hired consultants with "strong science" backgrounds

are Lois Kluver and Gloria Tweadey, Cooper said.

"We don't stress words — we stress concepts," Cooper said, adding that the program is designed to help students in both grades with decision-making roles.

In the fourth grade, students learn measuring and interpreting techniques in teams. They help teachers decide when to add food to plant and animal experiments, how much food to give, and chart scientific response, Cooper said.

Fifth graders take a daylong trip to Proud Lake Recreation Area, where their science skills and learning are put to good use, Cooper said.

**PRIOR TO** entering the science consultant program at the fourth grade level, each third grade experienced an organized program at the district's outdoor center located at Fairview Early Education Center.

"Science in first through third grades is entirely in the realm of the classroom teacher, with my help," Cooper added. "The teachers in all grades remain the important element" of the science program.

"An understanding of conservation and environmental protection" is stressed in all grades, Cooper added. "We try to show how science can go hand-in-hand in our daily lives."

The consultant program will receive special recognition at a meeting of the National Science Teachers Mar. 27-29 in California, Cooper added.

**IT WAS** also recognized recently by the Michigan Department of Education as a "designated exemplary program," he said.

"Farmington's sort of a maverick now," said Joseph Riley, science specialist for the Michigan Department of Education. He estimated less than 15 districts in the state have a full-time science coordinator.

He believes a mix of the traditional book teaching and hands-on experience is necessary for a good science program. With current high-tech industries science knowledge, will become more important in the future, he added.

"The future is going to require a better understanding of how things work — science is not going to be just for a few as it is now," Riley said.

**NEXT YEAR'S** Michigan Education Assessment Program (MEAP) tests for third, seventh and 10th graders will include a science section, which Riley said will show each district its weaknesses at various levels.

Cooper is building a "distinct, Farm-



Gloria Tweadey, one of Farmington Public Schools' newly hired science consultants, in a Kenbrook Elementary fifth-grade class.

ington curriculum," although his concepts are taken from other programs, including the hands-on national Science Curriculum Improvement Study (SCIS) program. "We have some unique things we think are good," he added.

The inception of the science consulting program frees Cooper for liaison work with other educational levels in the district. Middle and high school-level programs are presently being studied, as well as possible expansion into the 3rd grade with the consulting program, he said.

"Another form of support is needed for 1st and 2nd grades," Cooper added. "The school board, for instance, wants each school to have a 'science room' — a room with a science flavor."

A science-oriented activity in recent years is leading to other activities, such as science fairs, at the elementary and middle schools, he added.

## inkwell

*Inkwell provides news and information about Farmington-area primary and secondary schools. The column appears monthly throughout the school year as part of the Observer's "School Page." Send news items to: The School Page, Farmington Observer, 32202 Grand River, Farmington 48024. Include a telephone number where a contact person can be reached during the day.*

### GRANT AWARDED

The Michigan State Board of Education has awarded a \$500 mini grant to Elizabeth Wiel, a classroom teacher at Farmington Public Schools' Hawthorne Learning Center.

The school board approved \$90,878 in mini grants to 157 teachers from 102 school districts. The grants were the first direct-to-the-classroom aid provided by the school board. They are designed to provide individual teachers with financial assistance for use in special classroom activities or projects.

### SCHOOLS CELEBRATE

Area private schools celebrated Catholic Schools Week Feb. 2-8 with various activities involving staff, students and parents.

One parent of a student at St. Fabian School in Farmington Hills viewed "walls full of special projects" during her visit. The theme for area schools was "A Rainbow of Excellence."

Schools hosted spirit days, open houses and appreciation days for principals, staff and the community. Some daily themes included challenging youth, working for peace and respect for life.

### SOUND OF MUSIC

Farmington Public Schools will host this year's Michigan Schools Band Orchestra Association's (MSBOA) district competition March 7-8 and 14-15 at the three district high schools and at Dunckel Middle School. Bands from Oakland and Livingston counties will play continuously each day between 8 a.m. and 5 p.m.

The MSBOA is a 52-year-old professional association for band and orchestra directors. Farmington last hosted the district competition five years ago, according to music coordinator Paul Barber.

### MEMORIAL DONATION

New adaptive playground equipment will be purchased for Cloverdale Developmental Training Center with a \$1,000 donation accepted by the Farmington Board of Education Jan. 14. The gift was given by Lela Gule as a memorial to her son, Don, a district employee until his death due to leukemia.

### ASSISTANT APPOINTED

Laura Zalac was recently appointed program assistant at Cloverdale Developmental Training Center. The Farmington Board of Education approved her hiring Jan. 14.

### VOCAL HONORS

Six Farmington-area high school students were selected for the Michigan School Vocal Association

State Honors Choir from a field of 1,000.

The six are Jennifer Dauermann and Carrie Brown of Farmington Harrison High School and Linda Abar, Dean Feldpausch, Jan Rintamaki and Laurie McKinnon of North Farmington.

They appeared in concert Jan. 18 at Hill Auditorium, Ann Arbor.

### PRINTING BOWL

Farmington High School hosted preliminary rounds of the ninth annual Printing Bowl Quiz Jan. 16. The quiz challenges five-person teams to answer graphic arts-related questions. The team answering the most questions correctly wins.

The final round of competition took place at the sponsor's business, the Detroit Club of Printing House Craftsmen, Jan. 21.

### COMMUNITY SEMINAR

Local real estate agents and personnel directors for area companies can receive an update on the Farmington Public Schools at a breakfast slated for 8 a.m. Wednesday, March 5, at the Warner Middle School, 30303 14 Mile, Farmington Hills, according to Paul Barber, a member of the school district's marketing committee.

The two-hour seminar is designed to provide information for distribution to new area residents, he said. Each person attending will get an informational packet.

### TEACHERS APPOINTED

Five new teachers were appointed by the Farmington Board of Education Tuesday, Jan. 28. All began work during the month of January.

Forest Elementary has two new teachers. Teaching third grade is Judy Barclay, and new to the fourth grade is Dolores Harris. New mathematics teacher at Farmington High School is Marie Aratari. Marion Brewer is the new second-grade teacher at Konbrook Elementary, and Leslee LaCosse is teaching first grade at Larkshire Elementary.

Janice Lewis resigned as special education aide at Eagle Elementary, effective Jan. 24.

### SIGNUP REMINDER

Kindergarten registration for the 1988-89 school year is scheduled the week of March 3, during regular school hours, at all Farmington Public Schools elementary schools.

Parents will need to complete registration forms and present each child's birth certificate at their local elementary school office. Information about preschool testing and the kindergarten orientation program will be given to parents.

A child must be 5 on or before Dec. 1, 1986, to be eligible for kindergarten attendance.

### WINTER BREAK

Farmington Public Schools students will have a winter break from Thursday, Feb. 20, through Monday, Feb. 24.

In the Clarenceville Public Schools, winter break will be from Friday, Feb. 21 through Monday, Feb. 24.

Walled Lake Consolidated Schools students won't be off again until spring break.

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