Summer is usually a peaceful season at Vanderbilt, with most students taking a well-deserved break from classes. Last summer, however, the campus was a beehive of activity as numerous middle and high school students and teachers took advantage of more than ten programs sponsored by the University to expand their educational horizons. The College of Arts and Science, its faculty and students supported and participated in several of these projects, including a new program for academically talented students, Project GRAD (Graduation Really Achieves Dreams) Summer Institute for Nashville inner-city high school students, and Girls and Science Camp.

Here is a look at those programs, which are part of the University’s efforts to support and improve K-12 education and to encourage volunteerism among Vanderbilt students.

Wanted: Gifted Students

Wearing protective goggles and white lab coats, students in Mel Joesten’s and Shawn Phillips’s chemistry class worked to extract the iron shavings that are added to Total brand breakfast cereal, a standard experiment in Vanderbilt’s general chemistry course.

However, the pupils weren’t college students engaged in a summer course. They were participants in the inaugural session of the Vanderbilt Program for Talented Youth (VPTY).

Many had never used laboratories, but they caught on quickly with only a few mishaps. “You have to have patience,” said Bethany Wilder, a sophomore from Clarksville, Tennessee. “If you make one little mistake, you have to do the experiment over.”

“We get to see what’s really happening,” said Tiffany Ward, a tenth grader from Camden, Tennessee. “It was really a lot of fun but also challenging to teach that group,” Phillips said. “There was such a wide range in their ages and emotional development. However, the fact that they were sharp and eager to learn made it easier.”

A collaborative effort by the College of Arts and Science, Peabody College, and the Office of Undergraduate Admissions, VPTY drew to campus 85 students from the mid-South last summer for four weeks of advanced study in chemistry, mathematics, computer science, and writing.

Students selected for the program took SAT or ACT tests, earning scores that ranked them among the top 2 percent of students in the nation. All were rising eighth through eleventh graders. They included 55 boys and 30 girls. Several participants were the children of Vanderbilt faculty members and alumni or siblings of current Vanderbilt students.

“This was a group of really curious, enthusiastic students,” said Matthew Gould, professor of mathematics and codirector of the program. “You could see an intellectual awakening in them that was a joy to behold.”

“The program’s instruction was aimed at the very characteristics that make students gifted: their ability to make connections among seemingly disparate ideas, to assimilate new information rapidly, and to be challenged by the subject matter,” said Patrick Thompson, professor of mathematics education, who codirected the program with Gould.

Participants also had the opportunity to socialize with other gifted students so that, in this setting, they are not considered odd for understanding ideas easily or being interested in seemingly arcane topics.

After being in class six hours each day, the students were ready to play in the late afternoon and evening. Favorite activities included basketball and tennis at the Student Recreation Center, games of chess and Risk in the Commonsrooms at Branscomb Quadrangle, playing musical instruments, and trips to local pizza and ice cream parlors.
Three A&S alumni elected to Board of Trust

The Vanderbilt Board of Trust elected three new A&S alumni as members during its spring meeting. They are Joe L. Roby, John R. Loomis, and Dan Barnhardt, young alumni trustees.

Roby is president and chief executive officer of Donaldson, Lufkin & Jenrette Inc. Loomis is a general partner with the First Manhattan Company, a New York investment management firm, and Barnhardt, an economics major from Charlottesville, Va., succeeds Zachary Willette as the young alumni trustee.

The Vanderbilt Board of Trust consists of 23 members: 18 elected by the alumni, 3 appointed by the chancellor and 2 appointed by the university president. The board is responsible for the management of all university property and funds.

The board members serve staggered terms of six years. Each year three members of the board are eligible for re-election. This year, four members of the board are eligible for re-election: Christopher H. Johnson, Chancellor William S. Majors, and Chapman S. Grainger, chairman of the board.

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Foundation graduate teaching fellow (please see A&S graduate and undergraduate students served as program assistants, and the participants also used A&S classroom and laboratory facilities and materials.

Gould said VPTY continues Vanderbilt’s tradition of serving the nation’s brightest students. He hopes the program will help put the University at the top of participating students’ college lists.

Project GRAD makes dreams come true

During the past two years, 34-year-old Casey Boggs (brother of current Vanderbilt student Victoria Boggs) has been a sponor at Nashville’s Pearl-Cohn High School. Casey is determined to make these dreams a reality.

Casey completed Project GRAD’s first summer institute at Vanderbilt, despite the fact that he was grieving. “My brother would have wanted me to do this “he said, adding “I think what I’ve learned here will help me with my classes this year and in the future. And, it’s brought me out of trouble.”

General Carl Powell, retired head of the U.S. Joint Chiefs of Staff, launched Project GRAD in Nashville with a visit to Pearl-Cohn High School.

Marsden 8th grader from Pearl-Cohn participated in the week-long summer institute. The students came from a variety of socioeconomic backgrounds. All signed pledges to attend college in three years. Project GRAD provides $4,000 in summer scholarships to students who earn 2.5 grade-point averages and attend two summer institutes at Vanderbilt.

The students received instruction in English, one of the sciences (physics, biology, chemistry), and math. In the process, they also learned about college and大學 education. Participants visited Radnor Lake State Natural Area and analyzed water samples while learning about water quality issues in a stream at a nearby lake.

It’s a GAS (girls and science)

When Ann Treanor, 41, was in high school, once she project was helping 12 to 14 develop an interest in science and scientific careers.

“The program is not to push students into the sciences but to raise the overall level of science literacy.”

The program includes 12 graduate teaching fellows from Vanderbilt chemistry, biology, molecular biology, engineering, or medical school programs and from Meharry.

A win-win-win situation

The College of Arts and Science also sponsors an ongoing project with Meharry Medical College for Nashville elementary students during the school year.

Bringing science to life for the public school students while supplementing their regular school curriculum is a unique opportunity for all involved. “It allows teaching fellows, who have in-depth knowledge in specific content areas, to gain teaching experience while shadowing a master teacher in the classroom,” said Hamilton.

At the same time, it provides that teacher with another set of hands and head when developing practical experiments. A win-win benefit is that the teaching fellows provide young people with additional positive role models who make science come alive.”

Craig Owensby, director of communications for Metro schools, couldn’t agree more about the benefits of the program. “It’s exactly the kind of partnership we strive to build because it’s a win-win situation for our students as well as for the teaching fellows.”

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Volunteers for Science

The National Science Foundation grant builds on the success of the Vanderbilt Student Volunteers for Science (VSVS) program, which Mr. Josten developed in 1994 with Michael Schooling, MD96, of Oro, California. Pat Tellingshuizen, coordinator of VSVS, helps the teaching fellows plan inquiry-based activities for use in their classrooms, Mr. Josten said.

About 250 undergraduate, graduate, and professional students volunteer each year with VSVS. The majority are A&S students, who provide hands-on science activities for Nashville middle school students through both on-campus and off-campus programs. The VSVS teams present an on-campus lesson on polymers to approximately 5,200 sixth graders each year through Vanderbilt’s Day On Campus Program. At the conclusion of the class, the seventh-graders make their own “slimes.”

The off-campus program involves VSVS teams working with teachers in 60 classrooms at five middle schools involving 1,800 fifth- and sixth-grade students.

“The program helps middle school teachers enhance the science instruction in their classrooms by supplementing the middle school science curriculum with additional hands-on, inquiry-based lessons presented by VSVS teams,” said Josten.

“Science is about experimentation,” he said, adding that the program helps the students to become “informed citizens [who] understand how the fundamentals of science and technology affect their lives.” —Mardy Fones
Alumni & Faculty

R E S E A R C H B R I E F S

A new particle collider designed to recreate an ancient state of matter that scientists think existed in the microseconds following the birth of the universe has begun operating at Brookhaven National Labora-

tory on Long Island. Two Vanderbilt physicists—Professor Charles F. Maguire and Associate Professor S. Victor Greene—each play a key role in the massive enterprise that involves more than 1,000 scientists from 90 different institutions in 19 countries.

According to the PHENIX spokesperson, William Zajac of Columbia University, "Both Volpi and Char-


ka have taken responsibility for a very major task at PHENIX, and they have done fantastically well at it." The accelerator is called the Relativistic Heavy Ion Collider (RHIC). Maguire and Greene are part of the scientific team that developed a complex detector, called PHENIX, which is one of four experiments at the accelerator. PHENIX is designed to track and identify the different subatomic particles created in the extreme conditions produced following the collision.

PHENIX rises

Neuroscientist Jon Kaas on Kaas elected to National Academy of Sciences

On 11. Kaas, Centennial Professor of Psychology, has been elected to the prestigious National Academy of Sciences.

The academy, a private organization of scientists and engineers established in 1863 by an act of Congress, chose Kaas "in recognition of his distinguished and continuing achievements in original research." Election to the academy is consid-

ed one of the highest honors a scientist can achieve.

Kaas came to Vanderbilt in 1972 from the University of Wisconsin. His major interest is devoted to understanding how the human brain is organized and how the brain develops and how mature brains respond to injuries. His major goal is to develop a model of how the human brain is organized to process visual information.

"In recent years, he has been interested in understanding how the brain develops and how mature brains respond to injuries. His major goal is to develop a model of how the human brain is organized to process visual information."

PHONETHIP M. LIU

"plastic," that it can adjust itself according to experience. For example, if one part of the central nervous system is injured, neighboring parts of the brain will take over for the injured part."

Kaas's research has resulted in more effective therapies for stroke victims, according to Schall, and it has implications for victims of Alzheimer's disease. The "impact of Alzheimer's disease could be postponed if we used brain plasticity to re-route neurons around the affected area of the brain," Kaas explains. His findings are also being used to develop better ways of teaching reading and mathematics to children.

Kaas is one of four Vanderbilt professors who are National Academy members, and the only one still on the faculty. The three include Nobel laureate Stanley Cohen, distinguished professor of bio-


chemistry, William Darby, distinguished professor of bio-

chemistry, immunology, and Charlie Parker, professor of physiology, emeritus.

and his colleagues have shown that the adult brain is "plastic," that it can adjust itself according to experience. For example, if one part of the central nervous system is injured, neighboring parts of the brain will take over for the injured part."

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About 2,500 alumni and their guests returned to campus Memorial Day weekend to celebrate their undergraduate experience. The ten reuniting classes and the Quinns committed $16.5 million in gifts and five-year pledges to many parts of the university. Approximately 250 people attended the Alumni Association/A&S Meet-the-Faculty luncheon on Friday of Reunion weekend. They heard poet Mark Jarman, professor of English, read from the works of Vanderbilt poets old and new.

These photographers by Stacey Irvin, BA’98, are among hundreds she took while traveling to the Far East this year as a result of winning the 1999 Margaret Stonewall Wooldridge Hamblet Award. A philosophy major, Irvin used the $15,000 cash award to travel to China, Tibet, and Pakistan. Her photographs will be on display at the Fine Arts Gallery from January 11-February 1, 2001. The Hamblet Award is given to a graduating senior each spring by a panel of outside jurors. Jennifer Gill, BA’00, is the 2000 winner. A ceramist, she traveled to Europe and Japan, where she took a special course in ceramics with people from all over the world. Her work will be exhibited next year.

These A&S alumni are members of the Vanderbilt Alumni Association Board of Directors: Tom Amonett, BA’65, JD’68, left; Jerry Reves, BA’65, Wayne Hyatt, BA’65, JD’68, new Alumni Association president; and Ruth Montgomery Cecil, BA’65, former president.

*QUICK FACT*

The College of Arts and Science is Vanderbilt’s largest school, enrolling approximately 3,400 undergraduate students.