

# C-MITES NEWS

Carnegie Mellon Institute for Talented Elementary and Secondary Students

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Issue #23

Fall 2004

## Summer Investigating!

This summer C-MITES students solved crimes, launched rockets, studied gravity, and competed in a challenging math contest at Summer Program classes throughout the state. The C-MITES summer program was offered at 26 different sites throughout Pennsylvania. Twenty-nine of these classes took place in Allegheny County and 11 of the classes were hosted by sites outside of Allegheny

County, representing a total of 12 different counties. The courses included: The Advertising Edge, Amusement Park Physics, CalcuSolve & More, Computers 101, Explorations in Science, Food Science, Fundamentals of French, Fundamental Programming, Informal Geometry, Introduction to Architecture, Materials Science, Mini Math Olympiad, Movies: From Page to Reel, Mystery Writing, Observational Astronomy, Roaming Ancient Rome, Robotics, Rocketry, Solve a Murder Mystery, Structures, Work Backwards, and You Make Me Sick: Immunology.

Nineteen classes took place during the first session, June 21 – July 2, and 23 classes took place during the second session, July 12-23. A total of 591 students participated this summer!

Students in the Rocketry class launched rockets and made kites to study the principles of flight. Students in the Food Science class determined levels of compounds like sugar, vitamins, and fat in their

favorite foods. During the You Make Me Sick: Immunology class, students learned about viruses that try to take over their cells. They discovered that bacteria are everywhere, investigated medicines, and discussed how they can stay healthy. In Solve a Murder Mystery, students became crime scene investigators. They were detectives and learned what it takes to be a forensics expert. Fingerprinting, hair identification, DNA analysis, and evidence collection were put to the test of solving a real “crime” that occurred in the classroom! Throughout the state, students were doing hands-on activities that made their classes interesting and fun!

Special kudos go out to all of the C-MITES faculty and staff for making this years program a success.

Pictures were taken by C-MITES photographer Ray Budd, and are currently posted on the C-MITES website. Go to [www.cmu.edu/cmities](http://www.cmu.edu/cmities) to check them out!

C-MITES News is published by the Carnegie Mellon Institute for Talented Elementary and Secondary Students. C-MITES sponsors a talent search for 3<sup>rd</sup>-6<sup>th</sup> graders as well as summer and weekend programs for K-9<sup>th</sup> graders throughout Pennsylvania.

- ◆ Director: Dr. Ann Lupkowski Shoplik
- ◆ Program Coordinator: Pamela J. Piskurich
- ◆ Talent Search Coordinator: Daniel M. Rosenberg
- ◆ Publications Coordinator: Raymond T. Budd
- ◆ Research Specialist: Dr. Mary Ann Swiatek
- ◆ Program Assistant: Connie J. Herold
- ◆ C-MITES Assistant: Barbara J. Dunn

A portion of the funding for C-MITES is provided by the Fisher Fund of the Pittsburgh Foundation, Mr. Mark Gelfand, the Grable Foundation, the Tyco Electronics Foundation, the Westinghouse Charitable Giving Program, C-MITES families, and several anonymous donors.

### C-MITES Fall and Winter Calendar

<i>September</i>	12: Awards Ceremony for high-scoring EXPLORE testers Weekend Workshops EXPLORE testing information mailed to schools
<i>October</i>	Weekend Workshops
<i>November</i>	15: Early registration deadline for EXPLORE testing Weekend Workshops
<i>December</i>	13: Final deadline for January EXPLORE testing
<i>January</i>	11: Final deadline for February EXPLORE testing 29, 30: EXPLORE test dates Spring Weekend Workshops brochures and newsletter mailed
<i>February</i>	26: EXPLORE test date Summer Program brochure mailed



## 2004 Summer Program Sites

We sincerely thank the following schools, which hosted our 2004 Summer Program:

### Allegheny County:

- Carlow College Campus School, Oakland
- Carnegie Mellon University, Oakland
- Donaldson Elementary School, Oakdale/Imperial
- Edgeworth Elementary School, Sewickley
- The Ellis School, Oakland
- Linden Elementary School, Pittsburgh
- Linton Middle School, Penn Hills
- Marshall Middle School, Wexford
- Mt. Lebanon High School, Mt. Lebanon
- National Robotics Engineering Consortium, Lawrenceville
- Ramsey Elementary School, Monroeville
- South Fayette Elementary School, McDonald
- Streams Elementary School, Upper St. Clair
- Wexford Elementary School, Wexford

### Other Locations:

- Stewart Elementary School, Lower Burrell
- Copper Beech Elementary School, Abington
- Hershey Elementary School, Hershey
- Hollidaysburg Catholic School, Hollidaysburg
- Indian Valley Middle School, Harleysville
- Linntown Elementary School, Lewisburg
- Pocono Mt. Elementary Center, Tannersville
- South Side Elementary School, Connellsville
- Westmont Hilltop Elementary School, Johnston
- The Wyndcroft School, Pottstown
- Wyomissing Jr./Sr. High School, Reading



## KidScience at the Zoo

Future zoologists, take note. The Pittsburgh Zoo and PPG Aquarium has an interesting opportunity for students who are especially interested in science, particularly animals. KidScience is a science enrichment program for middle school students. Participants can learn more about what happens in a zoo, how conservation biologists study animal behavior, and be involved in the research taking place at the zoo. The tuition for the 2004-2005 program year is \$555 for zoo members. Some scholarships are available.

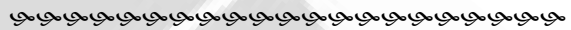
For more information and an application, contact Cathleen Samiec at (412) 365-2567 or kidscience@zoo.pgh.pa.us.

## New Name, Same Acronym

During the 2003-2004 school year, C-MITES expanded to include classes for eighth and ninth graders. Until that time, C-MITES stood for the Carnegie Mellon Institute for Talented Elementary Students. We realize that since we were offering classes for teenagers, referring to ourselves as “elementary” was no longer appropriate.

After looking at suggestions from C-MITES parents, students and staff, we realized that one solution would be to become the Carnegie Mellon Institute for Talented Elementary and Secondary Students. That name described our organization perfectly, but would we become C-MITESS?

In the end, we decided to take some creative license and make the “E” in “C-MITES” stand for “Elementary and Secondary.” Even though we’re not making changes to the acronym C-MITES, we are continuing to make changes to our programs. In addition to adding courses for eighth and ninth graders, we have also begun offering Weekend Workshops in Erie and have completely revamped our online registration process. We hope to provide even more services for C-MITES families while still maintaining the level of quality associated with our acronym – regardless of what it stands for.



## Thank You to Our Generous Donors

The tuition paid for C-MITES programs provides the majority of our funding, but we rely on donations for approximately 5-10% of our annual budget. We are very grateful for the grants we recently have received from the following individuals and organizations:

- The Grable Foundation provided C-MITES with \$60,000 over three years (2002-2004)
- Mr. Mark Gelfand has generously donated to C-MITES on several occasions. Most recently, he gave \$66,000 to our programs for a three-year grant, beginning in December 2003.
- The Fisher Fund of the Pittsburgh Foundation provided \$100,000 over three years (2003-2005).
- C-MITES families are valuable sources of support for our organization. We thank Phyllis Versella, as well as those who have made donations anonymously. If you are considering a donation to C-MITES, please check with your employer about matching funds—they can double your contribution!

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## C-MITES Teacher Feature: Mr. Andrew Johnson

If you're looking for a teacher who is nuts about math, read on! Mr. Andrew Johnson started working with the C-MITES program in 2002. He has written and developed C-MITES Weekend Workshop courses such as *Chess Thinking I & II*, *Morsels of Motion* and *From 2-D to 3-D & Beyond*, and he has taught on a variety of occasions at our Abington location.

Drew has taught the C-MITES summer course called *Structures* in Abington and Kennett Square, PA. This year, he had the opportunity to teach a new course but in a very familiar district. He taught Amusement Park Physics in the district where he works, Souderton Area, at Indian Valley Middle School. We can count on Drew to teach almost anywhere in Montgomery County!

Drew's math background and sense of humor make for a great experience for students of every age. C-MITES parents have often commented on their children's excitement and enthusiasm for math after they have attended one of Drew's classes. Drew is a truly dedicated and outstanding instructor.


Drew lives in Phoenixville and has taught middle school math for six years in the Indian Valley Middle School. He earned his bachelor's degree in mathematics at Ursinus College and his master's degree in mathematics at Villanova University. He started the MathCounts club at his school and said that teaching accelerated Algebra and coaching the MathCounts team energize him every day. He encourages young students to seek new knowledge in every facet of their lives.

When he's not teaching math, Drew enjoys singing in his church choir and listening to classical and folk music.

We are very proud and lucky to have such an outstanding educator as one of our teachers!



*Mr. Andrew Johnson, C-MITES Teacher*



**"It gave [my daughter] the chance to participate in classes she enjoyed very much because they were challenging and much more interesting than her regular everyday school classes."**

**-Parent of a student**



*Bob Bamont, C-MITES Computer Programmer*

## New Online Registration Systems

In June C-MITES launched a new interactive online registration system for our Steppingstones and Weekend Workshop classes. Families can login to the secure C-MITES system with a username and password they select and then apply for classes. Rather than waiting for a letter to arrive in the mail confirming their students' registrations, families can login to the C-MITES website to check the status of their applications. They can also pay for classes and make changes to their children's schedules through this interactive system.

We also have an online registration system for the Elementary Student Talent Search testing program. Students may register for the test and select a test site using our secure online system.

We appreciate your patience as we incorporate these new systems into our daily business! We thank Bob Bamont, our highly capable computer programmer, for designing and implementing the systems. If families prefer not to use the online registration systems, they can still mail or fax a paper copy of the C-MITES registration forms. We're delighted that 75% of our families used our new system for Steppingstones this summer!



## Professional Development Workshops

C-MITES is continuing to offer its Professional Development series for teachers and administrators who work with gifted students. The sessions for the 2004-2005 school year will be held at Carnegie Mellon University. Topics will include Introduction to Gifted Education, Planning a Program of Services for Gifted Learners Based on Research-Supported Best Practices, and a conference-style workshop covering many topics in gifted education. Speakers for these sessions will include C-MITES staff members and teachers as well as Dr. Karen Rogers, a nationally-known expert in gifted education. For more information, see the C-MITES website or contact the office to request a brochure.



## Websites

There are many opportunities for gifted students outside the classroom. Here are links to the websites of several different contests and competitions. Continue to check out the Links for Kids and Links for Parents and Educators pages on the C-MITES webpage for even more sites that may of interest!

### Botball Robotics Competition – Grades 6-12

<http://www.botball.org/> - Design, build and program a robot.

### Christopher Columbus Awards – Middle School

<http://www.christophercolumbusawards.com/> - Working as a team, identify an issue and use science and technology to develop a solution

### Contests and Awards – Grades K-12

<http://www.hoagiesgifted.org/contests.htm> - A list of several additional contests and awards available for gifted students

### Dupont Challenge – Grades 7-12

<http://www.glcomm.com/dupont/> - Write an essay about a scientific or technological development

### ExploraVision Awards – Grades K-12

<http://www.exploravision.org/> - Research a technology's history and predict how it may change the future

### FIRST Robotics Competition – Grades 9-12

<http://www.usfirst.org/> - Design and program a robot

### Future Problem Solving Program – Grades K-12

<http://www.fpsp.org/> - Creative problem solving activities, both competitive and noncompetitive

### Kids Are Authors – Grades K-8

<http://teacher.scholastic.com/fairs/kaa/> - Write and illustrate a story in a group of at least three students

### Knowledge Master Open – Grades 5-12

<http://www.greatauk.com/KMO.html> - Questions in a variety of subject areas

### The League Contests – Grades 2-12

<http://www.continentalmathleague.hostrack.com/> - Links to information about competitions in current events, geography, language arts, science and social studies

### Letters about Literature – Grades 4-12

<http://www.loc.gov/loc/cfbook/letters.html> - Write a letter to any author, living or dead, about how his or her work has made a difference in your life

### Math Counts – Grades 6-8

<http://www.mathcounts.org/> - Three-hour math competitions

### Math League – Grades 4-12

<http://www.mathleague.com/contests.htm> - Math tests – multiple choice for grades 4-8; free response for grades 9-12

### Mathematical Olympiads for Elementary and Middle Schools (MOEMS) – Grades 4-8

<http://www.moems.org/> - Mathematical problem solving

### NASA's Student Involvement Program – Grades K-12

<http://www.nsip.net/index.cfm> - NASA-related investigations and design challenges

### National Geography Challenge – Grades 2-12

<http://www.ncge.org/activities/challenge.html> - Geography test

### National History Day Contest – Grades 6-12

[http://nationalhistoryday.org/02\\_contest/02.html](http://nationalhistoryday.org/02_contest/02.html) - Groups of up to five students produce a historical documentary, exhibit, paper or performance

### Odyssey of the Mind – Grades K-12

<http://www.odysseyofthemind.com/> - Group creative problem solving

### Science Olympiad – Grades K-12

<http://www.soinc.org/> - Individual and team events with science questions in the form of popular TV shows, board games and sports

### USA Math Olympiad – Grades 7-12

<http://www.unl.edu/amc/e-exams/e8-usamo/usamo.html> - Six questions requiring essays and/or proofs completed over two days

### Young Inventors Awards Program – Grades 2-8

<http://www.nsta.org/programs/craftsman/> - Design and create a functioning tool



## Above-Level Testing

by Ann Lupkowski-Shoplik, Ph.D.

Founder and Director, C-MITES, Carnegie Mellon University

Article reprinted with permission from PAGE UPDATE, Summer, 2004.

Trying to measure the abilities of a highly gifted child on a traditional grade-level test “is a little like trying to measure the height of the Harlem Globetrotters on a pole which only goes up to 6 feet 6 inches.”

- Miraca U.M. Gross

In her delightful quote, Miraca Gross specifies a problem in gifted education: how can we measure precocious children’s abilities accurately if our tests aren’t difficult enough? Psychologists call this the “ceiling effect,” where talented students take tests designed for their grade level, they get everything (or almost everything) right, and the test does not accurately measure their capabilities. What is the solution to this problem? Test developers could create a special “hard” test given only to gifted students, although this would be expensive and time-consuming. We could ask test developers to add additional difficult items to the grade-level tests, although that would make the grade-level test too long and frustrating for the typical student.

There is a fairly simple solution to the problem: give the talented youngster a test designed for older students. This more challenging test will allow young, talented students to demonstrate what they know and -- perhaps more importantly -- what they don’t know. This is not a new idea; Leta Stetter Hollingworth first pioneered this concept of “above-level testing” around 1916. She administered a series of tests designed for older students to Child E in her famous study of children scoring above 180 on IQ tests. Julian Stanley, inspired by Hollingworth’s work, used the same idea when he decided to give a test typically taken by 11<sup>th</sup> and 12<sup>th</sup> graders to talented 7<sup>th</sup> graders as a means of measuring their exceptional talents. In 1971 he gave the College Board’s SAT to junior high students, and the Talent Search concept was born.

Above-level testing is the backbone of the Talent Search model. We start with students who are in the upper three to five percent of their grade level in school. These students’ scores place them in the upper tail of the normal distribution, also known as the bell curve. We then give this small sample of talented students the test designed for older students, and this yields another bell curve. In other words, some of the talented students taking the above-level test earn relatively low scores on the more difficult test, most of the students earn scores in the middle, and a few students earn very high scores. This above-level test has helped us to differentiate the “talented” students from the “exceptionally talented” students. This differentiation is meaningful when we are making educational recommendations. For example, all students who have taken the above-level test would benefit from enrichment and challenges in the regular classroom, plus additional outside-of-school activities in their interest areas. In contrast, the student who performed exceptionally well on the above-level test might need more extreme educa-

tional interventions, such as fast-paced courses, grade skipping, and other advanced opportunities.

Although it is interesting to obtain accurate test scores on these exceptionally capable students, the principle reason for identifying highly gifted children is to help them obtain an “optimal match” between their exceptional abilities and the educational program offered. Thus, above-level testing is an essential tool in educational planning for academically talented students.

Over the years, researchers have found that the differences measured by the above-level tests are meaningful, even when we are talking about students within the top one percent of ability. For example, one study demonstrated that the academic achievements of those students in the top quarter of this elite group were still more impressive than the achievements of those students in the bottom quarter of this group.

### Examples of Above-Level Tests

Julian Stanley’s idea of a Talent Search model caught on quickly. Today, a number of universities throughout the country sponsor annual talent searches for elementary and middle school students. In the first step, students are screened via the grade-level standardized tests they take in school (for example, the Iowa Tests of Basic Skills). Students scoring in the top 3 to 5 percent of their age group on that test are invited to take an above-level test as a measure of their verbal and mathematical aptitude.

Students in 7<sup>th</sup> and 8<sup>th</sup> grade may take the Scholastic Assessment Test (SAT-I) or the ACT Assessment. Both of these tests were designed as entrance exams for college, and high school juniors and seniors routinely take these tests as part of the college application process. However, over 100,000 7<sup>th</sup> and 8<sup>th</sup> graders each year take these challenging tests as part of a Talent Search offered by a number of universities.

The School and College Abilities Test (SCAT) is used extensively by the Center for Talented Youth at Johns Hopkins University in their Talent Search for 2<sup>nd</sup> through 4<sup>th</sup> graders. The SCAT includes subtests that measure quantitative and verbal reasoning. The test is available in three levels (elementary, intermediate, and advanced), making it useful for identifying academically talented 2<sup>nd</sup> through 9<sup>th</sup> graders.

The PLUS Academic Abilities Assessment measures verbal and quantitative reasoning abilities and has been used as an above-level test with 5<sup>th</sup> and 6<sup>th</sup> graders. Fifth graders are compared to the normative sample of 8<sup>th</sup> graders, while 6<sup>th</sup> graders are compared to the normative sample of 9<sup>th</sup> graders.

(Continued on page 6)



The EXPLORE test, developed by ACT for eighth graders, consists of four multiple-choice tests: English, Mathematics, Reading, and Science. It has been used in the C-MITES Elementary Student Talent Search at Carnegie Mellon since 1993, and it has been adopted by a number of other university-based Talent Searches.

School personnel do not have to wait for a student to participate in a university-based Talent Search. They can administer above-level tests in their own schools. For example, a talented second grader can take the mathematics sections of the fourth or fifth grade level of the Iowa Tests of Basic Skills as a means of demonstrating his or her advanced capabilities. School personnel can then compare the young student to the normative sample for the older grade. Students scoring at the 50<sup>th</sup> percentile or above when compared to students several years older are good candidates for special educational opportunities.

#### *Uses of Above-Level Testing*

Even though all of the students taking the above-level test might be considered academically talented, students demonstrating higher abilities have a greater need for a differentiated program and have a need for more acceleration in school than do students earning more moderate scores. Appropriate educational interventions include enrichment in the regular classroom, grade-skipping, acceleration in one subject, testing out of a course, taking a fast-paced summer course, participating in the International Baccalaureate program, concurrent enrollment in middle school and high school, distance learning courses, taking Advanced Placement (AP) courses, and early entrance to college. These are highly cost-effective options because they utilize resources, curricula, or programs for older students that are already available. In addition, these options have demonstrated their effectiveness in repeated research studies.

There are many benefits to participating in above-level testing:

- Above-level tests measure talented students' abilities more accurately than grade-level achievement tests do, and they aid in educational diagnosis.
- Above-level tests provide objective information for parents and school personnel that is fairly easy to interpret; they aid in making decisions such as: should this student skip a grade? Should that student be placed in an advanced algebra class?
- Educational recommendations are tailored to the abilities of the student.
- University researchers who have used above-level tests with thousands of youngsters have developed guidelines for educational recommendations for students scoring at particular levels. Ranging from enrichment to accelerative options, these recommendations represent modifications that can be matched to a student's demonstrated abilities and achievements.
- Participants in university-based talent searches have access to special educational opportunities, including challenging classes during the summer, on weekends, and through cor-

respondence courses and on-line courses. These special programs give talented students the opportunity to meet and study with like-minded youth.

- Because their talents are recognized at a young age, students receive appropriate educational information, learn more about their abilities, and are provided with and encouragement to maximize those abilities.
- University-based Talent Searches and local schools offer high-scoring students honors, awards, and scholarships.

In the years since Hollingworth's and Stanley's pioneering efforts, literally millions of talented youngsters have been helped by the concept of above-level testing.

#### *Selected References*

1. Assouline, S. G., & Lupkowski-Shoplik, A. (2003). Developing mathematical talent. Waco, TX: Prufrock Press.
2. Benbow, C. P., & Lubinski, D. (Eds.). (1996). Intellectual talent: Psychometric and social issues. Baltimore, MD: Johns Hopkins University Press.
3. Cohn, S. J. (1991). Talent Searches. In N. Colangelo & G. A. Davis (Eds.). Handbook of gifted education (pp. 166-177). Boston: Allyn and Bacon.
4. Lubinski, D., Webb, R. M., Morelock, M. J., & Benbow, C. P. (2001). Top 1 in 10,000: A 10-year follow up of the profoundly gifted. Journal of Applied Psychology, 86, 718-729.
5. Lupkowski-Shoplik, A. E., Benbow, C. P., Assouline, S. G., & Brody, L. E. (2003). Talent Searches: Meeting the needs of academically talented youth. In N. Colangelo & G. Davis (Eds.), Handbook of gifted education (3rd ed.) (pp. 204-218). Boston: Allyn & Bacon.
6. Robinson, N. S., & Robinson, H. B. (1982). The optimal match: Devising the best compromise for the highly gifted student. In D. Feldman (Ed.), New directions for child development. Developmental approaches to giftedness and creativity, no. 17 (pp. 79-94). San Francisco: Jossey-Bass.
7. Stanley, J.C. (1990). Leta Hollingworth's contributions to above-level testing of the gifted. Roeper Review, 12(3), 166-171.



*C-MITES students at the National Robotics Engineering Consortium*



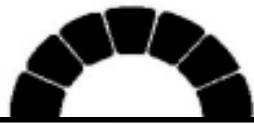
## Book Review:

### Genius Denied

Reviewed by Mary Ann Swiatek, Ph.D.

Jan Davidson founded Davidson and Associates, a software company that developed the popular Math Blaster and Reading Blaster software. When she and her husband Bob sold the company, they dedicated some of the profits to a new organization, the Davidson Institute for Talent Development ([www.ditd.org](http://www.ditd.org)), which provides assistance to gifted children and to schools. Since establishing the Davidson Institute, they have gotten to know many talented students and worked with many experts on the education of the gifted. This year, they published much of what they have learned in a book, *Genius Denied* (Simon & Schuster).

*Genius Denied* takes a personal look at the problems many gifted students face in finding an appropriate education. The book is full of examples of children whose schoolwork consists of repeating things they already have mastered, year after year, until the joy they once found in learning has been lost. It highlights the harm done to gifted students by such inappropriate education, but also the joy and inspiration they experience when they are challenged and have the opportunity to interact with people who understand and support them. As people who put actions behind their words, the Davidsons present many suggestions about what the reader can do to improve education for gifted students. They also have established a website, [www.geniusdenied.com](http://www.geniusdenied.com), that contains information on what you can do to help gifted students reach their potential. Suggestions range from writing to legislators to ask them to sponsor appropriate legislation to donating above-grade-level books to an elementary school for in-class libraries.



**“[My son] had a great time enjoying the science and math classes. To this day, he excels in math and science and looks forward to future classes. Also, he had fun meeting other kids and some of them are his friends today -- five and six years later.”**

**--Parent of a C-MITES student**

### Supporting Emotional Needs of the Gifted (SENG)

SENG is a group of parents, teachers, and other professionals dedicated to supporting the unique emotional needs of gifted students. This organization provides adults with guidance, information, resources, and a forum to communicate about raising and educating these children. SENNG brings attention to the unique social and emotional needs of gifted individuals that are often misunderstood or ignored, offers an annual conference, and provides educational opportunities. For more information, see [www.sengifted.org](http://www.sengifted.org).



*Ray Budd enjoying an active retirement*

### No Rest for This Retiree

When most people retire, they stop working. Not Ray Budd. After retiring from the Connellsville Area School District with 31 years of service in 1998, Ray took a full-time job in the C-MITES office. As the Talent Search Coordinator, Ray was in charge of all aspects of the EXPLORE testing program, including securing test sites, processing registrations, disseminating information to schools and parents, and planning the Awards Ceremony. In addition, he designed and edited literature, developed several C-MITES courses (including Flight, Mag-Lev, Rocketry, and Write Your Own Web Page), and served as a mentor to the new Talent Search Coordinator who was hired last year. As of April 1<sup>st</sup> of this year, Ray officially retired from C-MITES. Not working, however, still didn't sit right with Ray, so he accepted the position as the C-MITES Publications Coordinator.

In this new role, Ray will design and edit all C-MITES publications, including the newsletter you are reading now. In addition, he will teach and develop C-MITES courses periodically and produce and direct a new video about C-MITES programs. This part-time position will keep him in the office two and a half days per week, thereby allowing him more time with his wife Bernice and his seven grandchildren. Commenting that this part-time schedule “works well for me,” Ray can now spend more time traveling, painting, playing music and gardening.

The entire C-MITES staff salutes Ray for his dedication to gifted education, thanks him for his service as Talent Search Coordinator, and looks forward to continuing to work with him in his new role as Publications Coordinator.

# Sweatshirts! And a new book by the director of C-MITES!

**Order your C-MITES  
Apparel Today!**

Order your very own C-MITES sweatshirt and be the envy of all your friends! Simply fill out the order form to the right and return it to our office with your check made payable to "Carnegie Mellon University."

**Do you want a sweatshirt?**



\* The C-MITES sweatshirt is gray with maroon lettering saying "C-MITES Carnegie Mellon." \$22

\* Proceeds from these sales go to the C-MITES scholarship fund.

**Make check payable to Carnegie Mellon University**

**Send to:**

**C-MITES  
4902 Forbes Avenue  
Carnegie Mellon University  
Pittsburgh, PA 15213**

*Developing Mathematical Talent:  
A Guide for Challenging and Educating Gifted  
Students*

By Dr. Susan Assouline & Dr. Ann Lupkowski-Shoplik

This multi-faceted handbook integrates the unique roles of teachers and parents in the education of mathematically talented youth in elementary and middle school. The regular curriculum is inappropriate for most talented youth, and the authors provide a means of identifying the needs of such students and matching the curriculum to those needs. Throughout the book, issues concerning advocacy, identification, curriculum, and programming are addressed. The heart of the book is the description of the individualized Diagnostic Testing-->Prescriptive Instruction model, which systematically matches the level and pace of instruction to the abilities and achievements of each student. After reading *Developing Mathematical Talent*, you will know how to help the gifted student who is bored to tears in math class. (Order below).

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

Sweatshirts Quantity:

\_\_\_\_\_ adult size S      \_\_\_\_\_ youth size S

\_\_\_\_\_ adult size M      \_\_\_\_\_ youth size M

\_\_\_\_\_ adult size L

Number of sweatshirts X \$22=\$ \_\_\_\_\_

Number of books X \$30.95      =\$ \_\_\_\_\_

TOTAL ENCLOSED      =\$ \_\_\_\_\_

(Shipping & handling included in prices)