

Issue #21

# C-MITES NEWS

Fall 2003

Carnegie Mellon Institute for Talented Elementary Students  
C-MITES; 4902 Forbes Avenue; Carnegie Mellon University; Pittsburgh, PA 15213  
Telephone: (412) 268-1629 [www.cmu.edu/cmities](http://www.cmu.edu/cmities)

## A Smashing Good Time!

This year, the C-MITES Summer Program was offered at 25 different sites throughout the state of Pennsylvania. Thirty-one of these classes took place in Allegheny County and 14 of the classes were hosted by sites outside of Allegheny County, representing a total of 14 different counties.

Courses offered included: Abacus Math, Amusement Park Physics, Explorations in Science, Introduction to Architecture, Observational Astronomy, Creative Dramatics, Fundamental Programming, Fundamentals of French, Math Experiments, Materials Science, Math Olympiad, PoemART, Robotics, Solve a Murder Mystery, Work Backwards, Structures, TV Productions, What are the Chances?, and Aeronautics.

toothpicks and then tested their designs until they came crashing down! Explorations in Science students prepared fossils, went on rock digs and reconstructed the remains of an animal eaten by an owl. The "best" day for the Amusement Park Physics class was their trip to the amusement park. While racing along in a roller coaster, students tried to calculate the G-forces exerted on them using the G-force meters they constructed in class. Throughout the state, students were doing hands-on activities that made their classes interesting and fun!

Fifteen classes took place during the first session, June 16-27, and 30 classes took place during the second session, July 7-18. A total of 590 students participated this summer!

A special thanks to the summer C-MITES instructional staff, who had just as much fun as their students!

Students in the Aeronautics class constructed hot air balloons and rockets to observe the dynamics of flight. The students in the Structures classes built bridges using paper, balsa wood and

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



### C-MITES Fall Calendar

<i>September</i>	7: Awards Ceremony on Carnegie Mellon University campus 20, 21, 27, 28: Weekend Workshops at Carnegie Mellon <i>EXPLORE</i> testing information mailed to schools
<i>October</i>	4: Weekend Workshops at Erie, Pa. 5, 11, 12, 18, 19: Weekend Workshops at Carnegie Mellon
<i>November</i>	3: Deadline for registering for the <i>EXPLORE</i> test 1: Weekend Workshops at Abington, PA 1, 2, : Weekend Workshops at Carnegie Mellon 17: Late deadline for registering for the <i>EXPLORE</i> test ( <b>with \$10 late fee</b> )
<i>December</i>	15: Final registration deadline for the <i>EXPLORE</i> test ( <b>with \$15 late fee</b> )
<i>January</i>	31: <i>EXPLORE</i> testing Spring Weekend Workshops brochures mailed
<i>February</i>	1, 28: <i>EXPLORE</i> testing Winter newsletter and Summer Program brochure mailed

C-MITES News is published by the Carnegie Mellon Institute for Talented Elementary Students. C-MITES sponsors talent searches for 3<sup>rd</sup>-6<sup>th</sup> graders as well as summer and weekend programs for K-7<sup>th</sup> graders throughout PA.

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

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

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# Thank You for Your Support!!

C-MITES is grateful for the support of many individuals and organizations. Some donate money, and others provide us with space in which to conduct our classes. Our heartfelt thanks to all of you!

## C-MITES Appreciates Grant Support

- ◆ **The Leonard C. Grasso Charitable Foundation** gave \$1,500 to the C-MITES scholarship fund.
- ◆ **The Tyco Electronics Foundation** donated \$5,000 to the C-MITES Elementary Student Talent Search and educational programs.
- ◆ **The Westinghouse Charitable Giving Program** donated \$5,000 to support C-MITES educational programs.

## Special Thanks to Special Donors

- ◆ **Mr. Mark Gelfand**, a CMU alumnus, has been extremely supportive of C-MITES. In the past year, he has committed over \$100,000 to our programs. We extend special thanks to him for his generosity.
- ◆ We gratefully acknowledge over \$2000 in donations from **C-MITES families** this year. Their contributions are used to provide financial aid to students who otherwise would be unable to participate in our programs. Their donations helped us to provide over \$16,000 in scholarship aid to students in our Summer Program. Thank you to the families listed below, and also to those who made donations anonymously.

Kenneth and Elizabeth Adams  
Abdul Qadir Bhatti  
Eric and Paula Irwin

Thomas and Catherine Pomanti  
Allan and Marie Pomerantz  
Brian and Susan Reeves

Victor and Mary Jane Risch  
William and Stephanie Spence  
Paul Stratemeier

## 2003 Summer Program Sites

We sincerely thank the following schools, which hosted our 2003 Summer Program:

### Allegheny County:

- Carlow College Campus, Oakland
- Carnegie Mellon University, Oakland
- Edgeworth Elementary School, Sewickley
- The Ellis School, Oakland
- Hartwood Elementary School, Fox Chapel
- Marshall Middle School, Wexford
- McIntyre Elementary School, North Hills
- McKee Elementary School, Oakdale
- Mt. Lebanon High School, Mt. Lebanon
- National Robotics Engineering Consortium, Lawrenceville
- Penn Hebron Elementary School, Penn Hills
- Ramsey Elementary School, Monroeville
- South Fayette Elementary School, McDonald

### Other Locations:

- Center Township Elementary School, Butler
- Copper Beech Elementary School, Abington
- Forest Hills High School, Sidman
- Hershey Elementary School, Hershey
- Indian Lane Elementary School, Media
- Linntown Elementary School, Lewisburg
- Park Forest Baptist Church, Bellefonte
- Pocono Elementary Center, Tannersville
- St. Luke's School, Erie
- Trinity South Elementary School, Washington
- University of Scranton Campus School, Scranton
- Wyndcroft School, Pottstown
- Wyomissing Jr/Sr High School, Reading



Measuring g-forces while spinning  
in Amusement Park Physics



Testing the strength of a bridge  
in Structures

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## Teacher Feature: Diane Basty

In 2004, Diane Basty will be celebrating her 10<sup>th</sup> anniversary with the C-MITES program. She joined the C-MITES staff back in 1994, and has continued to work with us ever since! We enjoy her eagerness to teach and her dedication to the gifted children in the program.

Throughout her history with C-MITES, Diane has taught 17 two-week summer courses and 68 weekend workshops. Her Summer Program course is called Informal Geometry. The Weekend Workshops she has taught include: Experiments in Problem Solving, Math Puzzles, Writer's Workshop, Hands-on Geometry, The Math and Art of It, Creative Writing and Advanced Creative Writing.



**Diane Basty oversees her students' work in Informal Geometry.**

Her classes are well received by the C-MITES students and often have long waiting lists because they are so popular. The students' surveys of her workshops are excellent. Her unique classes and hands-on approach to mathematics and the humanities actively involve the students.

When she's not busy teaching for C-MITES, Diane works in the Hampton School District, a suburb of Pittsburgh.

Having been a part of C-MITES longer than most of the current office staff members, Diane has seen the C-MITES program evolve and grow. She has been an advocate for gifted learners for a long, long time. We sincerely appreciate all that Diane does for the students and staff of the program.

If you've ever been on CMU's campus for a weekend workshop, you've probably seen Diane. Next time, be sure to congratulate her for being this issue's C-MITES Teacher Feature!

## C-MITES Professional Development Workshops

C-MITES is pleased to announce its Professional Development Workshop Series for 2003-2004. These full-day workshops (8:30 a.m. - 4 p.m.) provide teachers, gifted coordinators, and school administrators with information about gifted students and skills for meeting their needs. In March 2004, C-MITES will offer its first professional development opportunity in the Philadelphia area, with a workshop on academic acceleration at the Radisson Hotel Philadelphia Northeast in Trevese, PA. Parents are welcome at these workshops, too!

### Workshops in Pittsburgh

(at Carnegie Mellon University)

Tuesday, October 14, 2003: *Differentiation for Gifted Students* by Cindy Strickland, School of Education, University of Virginia

Tuesday, November 18, 2003: *Hands-On Science and Math* by various C-MITES teachers

Wednesday, March 10, 2004: *Academic Acceleration: What's Best for Gifted Students?* by Mary Ann Swiatek, Ph.D., Licensed Psychologist, C-MITES Research Specialist

Tuesday, April 13, 2004: *Curriculum for Mathematically Talented Students* by Dana Johnson, Mathematics Department and School of Education, College of William and Mary

### Workshop in Philadelphia Area

(at Radisson Hotel Philadelphia Northeast, Trevese, PA)

Wednesday, March 31, 2004: *Academic Acceleration: What's Best for Gifted Students?* by Mary Ann Swiatek, Ph.D., Licensed Psychologist, C-MITES Research Specialist



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## C-MITES Research Projects

One of the goals of C-MITES is to advance knowledge about the characteristics and needs of gifted children through research. Some of our studies help us design and conduct our programs effectively; others help parents, teachers, and other important adults meet the needs of gifted children. Below are summaries of one study that was published in 2000 and two projects that are currently underway.

### Gender Differences in EXPLORE Scores

The use of above-level tests dates back to 1969, when the Scholastic Aptitude Test (SAT) was first used with a 13-year-old student. The use of the *EXPLORE* with able elementary students is a more recent application of this “talent search” method. In studies of junior-high level talent search participants, it has been shown that more boys than girls earn very high scores on the mathematics portion of above-level tests. In this study, we examined whether gender differences also exist among elementary school students who take the *EXPLORE* as an above-level test.

Boys and girls had similar average scores on all *EXPLORE* subtests (i.e., Math, Science Reasoning, English, and Reading). In English, boys performed better than girls in the third grade, but girls surpassed boys in fourth grade and continued to receive higher scores in fifth and sixth grades. Looking only at students who earned very high scores on the *EXPLORE* test, however, there were gender differences. More boys than girls met or exceeded the average scores of eighth-graders on the Math subtest, and more girls than boys did so on the English and Reading subtests. More boys than girls earned nearly perfect scores on Math and Science Reasoning, but there was no difference in the proportions of boys and girls earning nearly perfect scores on English or Reading. These results are similar to those found with older talent search participants, although the gender differences we found are less pronounced.

Swiatek, M. A., Lupkowski-Shoplik, A., & O’Donoghue, C. C. (2000). Gender differences in above-level *EXPLORE* scores of gifted third- through sixth-graders. *Journal of Educational Psychology*, 92(4), 718-723.

### Looking at the Elementary Student Talent Search

We are nearly finished with a study of the Elementary Student Talent Search (ESTS), in which we asked participating families and schools a variety of questions about their experience with this C-MITES program. 597 families and 93 schools completed and returned surveys.

Families with children who participated in the ESTS generally were very satisfied with their experience. Most of them believed that they learned useful information from the child’s *EXPLORE* scores, the majority of those with children who also

participated in the C-MITES Summer Program believed that *EXPLORE* scores were good predictors of the child’s performance in the program, and nearly all families stated that they would enroll their child in the Talent Search again if they were to make the decision over.

According to both families and school personnel, however, *EXPLORE* scores were not effectively used in schools, and often were not used at all. Part of this problem appears to be poor understanding of above-level testing on the part of school personnel. Although talent searches have been studied for over 30 years, teachers and school administrators often are unfamiliar with the research literature on this method of assessing the abilities of gifted students. We at C-MITES are now considering ways to educate school personnel about the ESTS.


### Whole-Grade Acceleration in Elementary School

Academic acceleration is an area in which research results and practice often are in conflict. Research strongly supports the use of academic acceleration for highly gifted students, but educators and school administrators often hesitate to allow qualified students to accelerate. Because very little of the research on acceleration has been done with elementary students, decisions for younger students may be particularly difficult.

Since 2001, we have been collecting data for a study of acceleration in elementary school. We have identified students in each C-MITES Talent Search since 1997 who have been accelerated in school at least one full year. For the purposes of comparison, we also have identified Talent Search participants from those years who have not accelerated, but who are similar to the accelerated students in terms of racial/ethnic background, type of school attended, grade level, and *EXPLORE* scores. Every participant in each group receives an “Attitudes-to-School” survey for the student to complete and a parent/guardian survey requesting information about the child’s academic background and performance. Parents of accelerated students also are asked about their satisfaction with the acceleration process for their child. Parents of unaccelerated students are asked whether they ever considered acceleration and, if so, why they decided against it.

We sincerely thank everyone who has participated in this study. Unfortunately, at present, we do not have enough responses to complete the study. If you have received surveys and have not yet responded, please take approximately 15 minutes to complete the surveys and drop them in the mail. If you have lost your surveys, please contact the C-MITES office and we will forward new ones to you. The more we can learn about gifted elementary students, the better the educational assistance we can provide them.





**“It was amazing to see my son so excited about a learning experience!”**  
**-Parent of a “Structures” student**

**C-MITES Weekend Workshops in Pittsburgh, Abington--and ERIE!!**

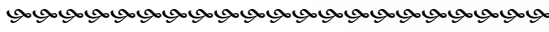
Enclosed with this mailing, C-MITES students will find a copy of one of our Fall Weekend Workshop brochures. If your ZIP code is 15000 through 16999, we are sending you the Pittsburgh brochure. Higher ZIP codes receive the Abington brochure. Remember, registration for Weekend Workshops is on a first-come, first-served basis, so be sure to register early.

C-MITES is pleased to announce that we will expand our Weekend Workshop offerings to include Erie. On October 4 we will hold two classes at St. Luke’s School in Erie, PA. Families in Crawford, Erie, Forest, Mercer, Venango, and Warren counties will receive the Erie brochure.



**C-MITES Plans Expansion of Services to Grades 7-9!**

In response to many requests from families and students, C-MITES is now in the planning stages of expanding our services to students in grades 7-9. We expect to begin with Weekend Workshops at Carnegie Mellon University in the spring of 2004 and we anticipate offering two-week Summer Program Courses for the 7<sup>th</sup> - 9<sup>th</sup> grades in June-July, 2005. Watch for further information!



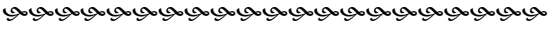
**Attention, 7<sup>th</sup> Graders**

Typically, this would be the last year that you would be included on the C-MITES “permanent” mailing list. Because we are planning to expand our services to students in grades 7-9, however, you will receive some C-MITES mailings in 8<sup>th</sup> and 9<sup>th</sup> grades.

At present, C-MITES does not offer a talent search for students older than 6<sup>th</sup> grade. If you are interested in talent search participation, we recommend that you become involved with the Center for Talented Youth (CTY) at Johns Hopkins University. They offer many opportunities for gifted students through the 12<sup>th</sup> grade, including a talent search for students in grades 7 and 8.

**Cool Website for Kids**

At Getsmarter.org, you can take practice quizzes in math or science, then take a “real” quiz and compare your performance to that of other students around the world. Give it a try!  
[www.getsmarter.org](http://www.getsmarter.org)



**The Christopher Columbus Awards Program**

The Christopher Columbus Awards program is a national competition that combines science and technology with community problem-solving in a real-world setting. With the help of an adult coach, 6<sup>th</sup>- through 8<sup>th</sup>-grade students work in teams to identify an issue they care about and use science and technology to develop an innovative solution. They work with experts, conduct research and put their ideas to the test, just like adult scientists. Teams compete for a week-long expenses-paid trip to Disneyworld for National Championship Week. Rewards for winning teams also include U.S. savings bonds and the \$25,000 Columbus Foundation Community Grant. For more information about this competition, see:  
[www.christophercolumbusawards.com](http://www.christophercolumbusawards.com).



**2004 PAGE State Conference: Mark Your Calendars!**

The 2003 PAGE conference was a great success, with many presentations about gifted education and lots of opportunities for networking. The 2004 conference is being planned for April 23 and 24, 2004 in Pittsburgh. Mark your calendars now, and watch for details at the Pennsylvania Association for Gifted Education website: [www.penngifted.org](http://www.penngifted.org).



**Parents, Teachers-- Check Out Mega-Math**

Mega-Mathematics, a project of the Computer Research and Applications Group at the Los Alamos National Laboratory, is intended to bring unusual and important mathematical ideas to elementary school classrooms so that young people and their teachers can think about them together. It is a website that provides information about current real-world math problems and includes activities to encourage exploration of them. For example, children learn about math while they determine how to color a map or where to locate ice-cream stands in a town. There are lots of fun ideas here! [www.c3.lanl.gov/mega-math](http://www.c3.lanl.gov/mega-math)

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# Perfectionism and the Gifted: What's Good, What's Bad?

by Mary Ann Swiatek, Ph.D., C-MITES Research Specialist

When many of us hear the word “perfectionism,” we picture a neurotic, uptight person who is unable to function due to constant frustration over an inability to measure up to his or her own impossibly high standards. Therefore, when we hear that gifted individuals often are perfectionistic, we worry. What we fail to understand is that perfectionism is *not* inherently a destructive force. In fact, it can be a very positive, productive force—one that is necessary to great achievement.

Perfectionism involves envisioning ideals and striving to achieve them. Gifted individuals’ strong abstract reasoning abilities promote their capacity to envision ideals, which are abstract representations of what *could be*. This vision, combined with high general ability and intense emotions, may account for the relatively high rate of perfectionism in gifted individuals.

The development of perfectionism as either a productive or destructive force depends on the direction it takes. In recognition of the healthy and unhealthy types of perfectionism, many authors employ contrasting terms, such as *enabling perfectionism* vs. *disabling perfectionism* and *excellence* vs. *perfectionism*.

As a productive force, perfectionism is the drive to do one’s best, resulting in satisfaction and pleasure with one’s achievements. It provides the motivation students need to aim high and reach challenging goals—to fulfill their potential. “Without perfectionism, there would be no Olympic champions, no great artistic endeavors, no scientific breakthroughs, no exquisite craftsmanship, no moral leaders. It is a basic drive to achieve excellence” (Silverman, 1993, pp. 58-59).

Problems can arise, however, if standards are unrealistic and inflexible. If a person defines “success” as a product so perfect it can never be achieved, expects a perfect performance on the first attempt, and defines anything else as “failure,” that person is prone to frustration and disappointment. The problems are compounded when one’s self-esteem is based largely on achieving “success” according to this definition. This kind of unhealthy perfectionism has been linked to underachievement because, intent on avoiding failure, a student may set only low-level goals that are certain to be accomplished, or may become immobilized by the fear of failing so that he or she is unable to start a task or is unable to progress once the task is begun.

Parents and teachers both can help ensure that gifted students channel their perfectionistic tendencies in healthy, productive ways. Remember that the idea is not to eliminate perfectionism, but to guide it in a productive direction.

- Take the student’s concerns seriously. Simply telling a child to “loosen up” is unlikely to be effective. The desire to

produce high-quality work is an appropriate goal that should be acknowledged and promoted.

- Try to teach students that mistakes are a normal and necessary part of learning. Adults can help to make this point by focusing more on the learning process (“What did you learn? What would you do differently next time?”) and less on evaluation (“What grade did you get?”).
- Help young children to understand that although their (advanced) minds may generate a clear picture of an ideal product, their bodies may not yet be well-developed enough to produce this product without help.
- Help children to prioritize, so they are not trying to be perfect in everything all the time.

With support and assistance, perfectionistic gifted students can learn to make their perfectionism work for them—to remain focused, detail-oriented, and committed to lofty goals without becoming unrealistic; to value the learning and working processes and not just the products; to evaluate their own work instead of relying on others’ opinions; and to take appropriate pride and pleasure in their accomplishments. In the long run, it is these abilities that foster excellence.

## For Further Information:

- Adderholdt-Elliott, M. (1991). Perfectionism and the gifted adolescent. In M. Bireley & J. Genshaft (Eds.), *Understanding the gifted adolescent: Educational, developmental, and multicultural issues* (pp. 65-75). New York: Teachers College Press.
- Brophy, J. (1996). *Working with perfectionist students* (Report No. EDO-PS-96-9). Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Document Reproduction Service No. ED 400 124).
- Silverman, L. K. (1993). A developmental model for counseling the gifted. In L. K. Silverman (Ed.), *Counseling the gifted and talented* (pp. 51-78). Denver: Love.



**Students performing calculations  
in What are the Chances?**

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## Get Involved in the Mathematical Olympiads--Without Ever Leaving Your School

The Mathematical Olympiads have been public competitions since 1979. They're fun, they're challenging, they help you get to know new people, and they require no travel. Here's how it works: Your school's math club meets weekly for an hour. Club members explore a topic or strategy in depth, or they practice for the contests. There are five monthly contests, given from November to March, and you can win awards for your work. Last year 150,000 students from 5,000 teams worldwide participated in the Olympiads. All 50 states and 25 other countries were represented. See [www.moems.org](http://www.moems.org) for more details.



### New Edition of the Handbook of Gifted Education

The third edition of the *Handbook of Gifted Education* (N. Colangelo & G. A. Davis, editors) recently was published. As in previous editions, which were published in 1991 and 1997, chapter authors in the new edition (2003) are experts with international reputations in the field of gifted education. Expanded coverage includes 9 new topics, plus updates to topics from previous editions. The resulting text contains 47 chapters in seven major areas: background information about gifted education in general; conceptions and identification of giftedness; instructional models and practices; creativity, thinking skills, and eminence; psychological and counseling issues; populations of giftedness; and special topics (including international perspectives, teachers of the gifted, rural gifted education, technology, legal issues, and federal involvement in gifted education). This book collects in one place the work and thought of many eminent professionals. It has a scholarly focus that emphasizes the evidence supporting educational theories and practices and provides an excellent overview of the key topics in gifted education today. It is an informative resource for anyone involved in the lives of academically talented students.

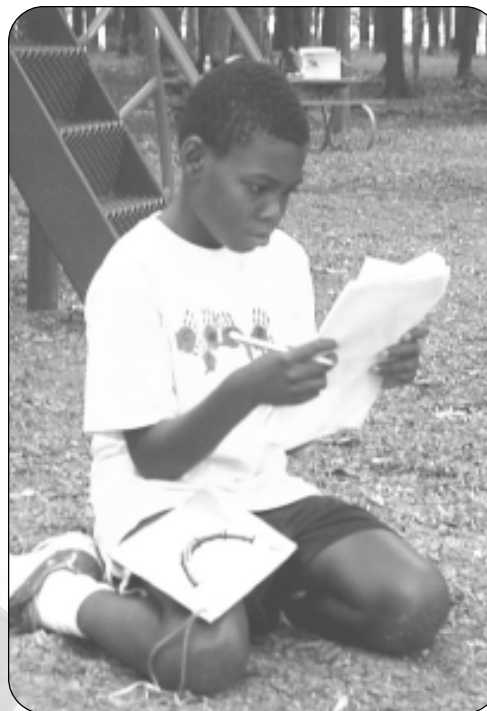
Colangelo, N., & Davis, G. A. (Eds.). (2003). *Handbook of gifted education* (3rd ed.). Boston: Allyn & Bacon. Available from publisher for \$86.40.



### Books to Prepare Gifted Students for Advanced Study

Gifted Education Press has published two books designed to help gifted students in grades 4-8 prepare for advanced study. Both books are by Francis T. Sganga, and both are available through the Gifted Education Press website: [www.giftededpress.com](http://www.giftededpress.com):

- *Essential Mathematics for Gifted Students: Preparation for Algebra*
- *Essential Chemistry for Gifted Students: Preparation for High School Chemistry*



Calculating the G-forces of playground rides in Amusement Park Physics

### C-MITES Answers Your Questions

Families of Summer Program students often include their questions about C-MITES on the evaluation form they fill out at the end of their child's class. Below are answers to some of the most common questions we saw this year.

**Does a child need to take EXPLORE in the same year as the Summer Program class he or she wishes to take?** No. Scores from previous years are acceptable as part of a Summer Program application. Because scores are likely to go up as a child gets older, re-taking the test can increase a child's chances of being accepted into the most sought-after classes (such as Robotics), but there is no requirement for re-testing.

**What opportunities are available for children after 7<sup>th</sup> grade?** Currently, C-MITES does not offer programs for students after 7<sup>th</sup> grade. We recommend that families consider the programs for older students offered by the Center for Talented Youth (CTY) at Johns Hopkins University. Keep watching C-MITES, however, as we are planning an expansion of our services to grades 7-9. See p. 5 for further information.

**Does C-MITES offer any residential programs?** No. Because the students we serve are quite young, we have not devised programs that require a stay away from home. Also, we are aware that cost is a factor for many families, and residential programs are considerably more expensive than the commuter programs we currently offer.

# Sweatshirts! T-shirts! Books!

## Order your C-MITES Apparel Today!

Order your very own C-MITES sweatshirt or t-shirt 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 T-shirt?



\*C-MITES 2003 t-shirts are yellow with a red and blue handprint design, as pictured above. \$12

\* The sweatshirt is blue with white 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, #6261  
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:	T-shirts Quantity:
_____ youth size S	_____ adult size S
_____ youth size M	_____ adult size M
_____ adult size M	_____ adult size L
_____ adult size L	_____ adult size XL
_____ adult size XL	

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

Number of t-shirts X \$12 = \$ \_\_\_\_\_

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

TOTAL ENCLOSED = \$ \_\_\_\_\_

(Shipping & handling included in prices)