Games are an activity everyone enjoys, and they serve an important purpose not only as recreation but also as a learning experience. Games hone problem solving skills, encourage logic and reasoning, challenge mental abilities and foster competition. So whether someone is playing a quick round of Sudoku or is engrossed in a “virtual” game, learning is taking place.

As a mathematics educator and parent, I see tremendous value in playing games. While children love technological adventures and can spend hours manipulating a computer screen, I would like to encourage you to build up a repertoire of hands-on games that you can play with them. The benefits are two-fold: these activities allow quality interaction with your children, and secondly, give you insight into the way they think and how they process information.

While I would encourage designated family game nights where an evening is devoted to playing your favorite board, card or trivia games, I would like to suggest some quick games that are easy to implement and can be played on the run, since much of our lives seem to fit into that category. These games can be adapted to different age levels and the rules are fluid, so feel free to modify them to fit the needs of your own students. Most involve numbers (as that is how I think!) but I’ve tried to include some language games I have collected over the years to try and broaden my own sons’ experiences!

**GAME 1—DOTS AND SQUARES**

Everyone is familiar with the simple game of creating squares from a dot matrix. (You have probably played this on a paper napkin in a restaurant!) Create a dot grid of your choice (5 X 5 or larger) and the rules are simple. Each player in turn connects two adjacent dots. When a player completes a square they claim that square and are allowed to draw succeeding segments until no new squares are formed. The winner has the most squares. Now, we change it up! Put values into each square so that some squares are worth more and it is possible to win even if you don’t have the most squares. Make it more challenging by introducing some negative values or a fraction or two! The strategies change as some squares are to be avoided while others are highly desirable. Your children can make their own playing field, though a word of caution: set parameters on the numbers they can choose lest some squares contain values in the millions!

**GAME 2—TIC TAC TOE 15**

Draw the familiar tic tac toe grid, but instead of X’s and O’s, one player uses 1, 3, 5, 7, or 9, and the other player uses 2, 4, 6, 8, or 10. The players place one number in turn on the grid (each number

Continued on page 4
C-MITES NEWS

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

- Director: Dr. Ann Lupkowski Shoplik
- Program Coordinator: Pamela J. Piskurich
- Web Designer: Raymond T. Budd
- C-MITES Program Assistant: Elizabeth Rheinfrank
- C-MITES Assistant: Barbara Matthews

A portion of the funding for C-MITES is provided by Mr. Mark Gelfand, The Grable Foundation, Dr. Bernard Meisner, C-MITES families, and several anonymous donors.

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Email: cmites@cmu.edu

The Student Page

Have you written a short story or poem you would like to share with other C-MITES students? Do you have a favorite puzzle or brain teaser you would like our readers to try to solve? Here's your chance! In each issue of the C-MITES NEWS, we will have a section called “The Student Page” that will be devoted exclusively to C-MITES students.

We are looking for original work by our students, including, but not limited to, poetry, short stories, mind benders, brain teasers or puzzles. To be considered for the next issue of the C-MITES NEWS, submissions must reach our office by October 1, 2010. Submissions are best sent in a Word document or in the body of an email. Emails of your work should be sent to Ray Budd at budd@andrew.cmu.edu.

Any work submitted is subject to the approval of the editor and must include contact information for the person submitting the work. We reserve the right to reject any submissions that are inappropriate for our readers.

Kumon Fox Chapel

We would like to thank Kumon Fox Chapel for generously donating the use of its facilities for one of the classes in our summer program. Kumon is a unique after-school supplemental program for math and reading. For more information about this program, which nurtures achievement and helps children perform beyond expectations, contact Mrs. Neelam Mitra at (412) 781-0850. Thank you for supporting C-MITES!

Thanks to the Summer Program Host Sites!

C-MITES would like to extend a sincere thanks to all of the following sites that served as Summer Program locations:

Aquinas Academy, Greensburg
The Campus School of Carlow University, Oakland
Carnegie Mellon University, Oakland
Edgeworth Elementary School, Quaker Valley
The Ellis School, Oakland
Forest Hills High School, Sidman
Grace Baptist Church, Montroseville
Kumon Math Center, Aspinwall
Learning Enrichment Center, Warren
Linnontown Elementary School, Lewisburg
Marshall Elementary School, Wexford
Northgate Middle/Senior High School, North Hills
Seton La-Salle High School, Mount Lebanon
St. Philip School, Crafton
Trinity East Elementary School, Washington
Wexford Elementary School, Wexford
Wexford Thurston School, Oakland
Windber Research Institute, Windber

We really appreciate the support!

C-MITES is named an “Educational Improvement Organization” and is now eligible for business donations through the EITC program

Your employer or business might participate in the EITC program, in which businesses make donations to educational improvement organizations, such as C-MITES. The Educational Improvement Tax Credit Program (EITC) provides a tax credit of up to 90% for companies that donate to non-profit educational improvement organizations. Money donated to C-MITES through this program directly benefits our students.

A business is approved for a tax credit up to 90% of its contribution to an educational improvement organization. First, the business completes a one-page application online at www.newpa.com/eitc. Applications are processed on a first-come, first-served basis until the available tax credit money is exhausted.

Please check and see if your business is eligible, and contact the C-MITES office for more information: cmites@cmu.edu.

Give your money to Uncle Sam or to C-MITES! It’s your choice!

We really appreciate the support!
MEET THE C-MITES WEB DESIGNER:
An Interview with Ray Budd
By Elizabeth Scales Rheinfrank

I recently had the opportunity to speak with C-MITES web designer, Ray Budd, who designs all of the C-MITES publications, including flyers, applications, brochures and the newsletter. A self-described “office geek,” Ray also oversees the design and maintenance of the C-MITES website and databases. He is a man of many talents: a musician, painter, marathon runner, gourmet cook and all-around great guy!

ESR: When did you first become involved with the C-MITES Program?

RB: I have been at C-MITES for 12 years. Before working at C-MITES, I was a band director for 25 years. I play the piano, sax and guitar. I started playing music at the age of nine. I was inspired by my cousin who played the saxophone. My dad took me to see him play, and I was hooked. I started playing professionally when I was 14 and went to Morehead State University in Kentucky on a music scholarship. I’ve played with a lot of bands in the Pittsburgh area. My favorite place I’ve performed is the Greenbrier Resort in West Virginia.

After teaching music, I taught gifted education for another 10 years. I was excited about joining C-MITES because all of my four children were identified as gifted. I believe strongly in gifted education and working here was a way of meeting the needs of gifted kids and their families. C-MITES is also an enjoyable place to work. Out of my 57-year working life, I have enjoyed my time at Carnegie Mellon the most. Being on campus with the students is rejuvenating. It keeps me young! I have been a teacher all of my life but more importantly, I’ve been a student all my life. I will never stop learning until I die. Painting, music, creative writing, computer programming—most of what I have done I’ve taught myself.

ESR: What is your favorite part of the job?

RB: I enjoy the database management, because it is complex and challenging. It’s like inventing something. If you want to see in the dark, you have to invent the light bulb. In programming, you have to write code to accomplish a specific task. I have always enjoyed solving puzzles.

ESR: You have designed the curriculum and taught for several C-MITES Weekend Workshop classes, including Mag Lev, Rocketry and Write Your Own Web Page. Which class was your favorite and why?

RB: Mag Lev was always my favorite. The concept is so intriguing, using magnetism to make objects float or levitate in the air. Mag-Lev transportation would revolutionize travel, making it possible to travel from Pittsburgh to Philadelphia in one hour, instead of the 6 hours it currently takes by car and 3 hours by train.

ESR: What are some activities you enjoy outside the office?

RB: I’m married, with four kids who are all doing well. I enjoy painting and travel. Running is also a big part of my life. I’ve been a runner for 30 years. I’ve run 10 marathons, including the Chicago and Columbus marathons, and I’ve qualified for the Boston marathon twice. I was excited when my son recently ran his first marathon.

ESR: Tell us about an interesting place you have visited.

RB: I particularly enjoyed visiting the Scottish Highlands. My wife and I love to hike. That is why it is one of our favorite places. I also love to visit Provence. I have been to France three times and love the culture. As an artist, I respond to the unique quality of the light and colors that you see in this south-eastern corner of France—lots of ochre and blues. The countryside is gorgeous!

ESR: Thanks for speaking with me today, Ray. You have such rich and varied interests. It’s been such a pleasure talking with you, and I am sure our C-MITES families have enjoyed the opportunity to learn more about you.

RB: You’re welcome, Elizabeth.

Davidson Fellow Scholarships
2011 Davidson Fellows $50,000, $25,000 and $10,000 Scholarships – Applications Available Now

If you are a student who will be under 18 as of Oct. 1, 2011, and are working on a graduate-level project in any field of study, you may want to consider applying for the 2011 Davidson Fellows scholarship. The Davidson Institute for Talent Development is offering high-achieving young people across the country the opportunity to be named a 2011 Davidson Fellow, an honor accompanied by a $50,000, $25,000 or $10,000 scholarship in recognition of a significant piece of work in Science, Technology, Mathematics, Music, Literature, Philosophy or Outside the Box.

Applicants must submit an original piece of work recognized by experts in the field as significant, and it must have the potential to make a positive contribution to society. The scholarship must be used at any accredited institute of learning. The deadline to apply is March 2, 2011. To find out more, please visit www.DavidsonGifted.org/Fellows.
Played Any Good Games Lately ...

Continued from page 1

is used only once), and the winner is the person who writes the third number that gives a sum of fifteen to the three values in that row, column or diagonal. The numbers will not necessarily be his or her own, i.e. the player who writes 5 in a row with a 6 and 4 would win, though it is the only value in his or her set.

GAME 3—WORD CHAIN

Choose a three letter word and write it at the top of a piece of paper (napkins work well here too!). The next player must change one letter to create a new word. Play passes around until no new words can be formed. See how long a chain the group can make. As a variation, let each person make his or her own chain; specify which letter must be changed. For example rotate through last, middle, first, or try a four- or five-letter word.

GAME 4—TARGET NUMBER

Have children choose 5 numbers less than 50 (adjust this limit depending on the ages and abilities) and then pick a target number less than 30 (again this can be varied). See who can use all five numbers and any of the four operations of addition, subtraction, multiplication and division to equal the target value. Points are earned for the use of all five numbers with fewer points awarded when four or three numbers are used instead. (Each number may only be used once in an equation.)

GAME 5—MAKE 20 A DICE GAME

Play in pairs, one die per pair. The first player rolls the die and states the number shown on top. The other player than turns the die so that any one of the four adjacent sides is up and adds this number to the previous number. Then the first player turns the die again to an adjacent side and adds the number on top to the previous sum. A player wins by reaching 20 or by forcing his opponent to get a sum over 20.

GAME 6—VALUE OF WORDS

Assign a numerical value to each letter of the alphabet, for example you can use 1 to 26 or let A-E each equal 1, F to J each equal 2 etc. See whose name is most valuable, or find words that have a specific value such as 10 or 100, depending on the numerical equivalents you’ve given the letters. Or have children write a three word sentence with the greatest or lowest value.

GAME 7—LICENSE PLATE ARITHMETIC

This game originally was called “Boxcar Addition” and the goal was to add the numbers on the boxcars as they whizzed past! I don't think we spend much time at railroad crossings anymore, so this has been adapted for driving around most anywhere. Combine the numbers on the license plate on the car in front of you to equal a target number that is chosen for the day—or just add them up. The operation can vary for any given day.

GAME 8—LICENSE PLATE SENTENCES

Since many plates now have three or more letters, create a sentence using words that start with those letters in the same order as they appear. If the plate reads ELM you could say “Everyone loves math” or “Ed likes Mondays.”

These are just a few of the activities that are easy and fun ways to keep active minds engaged even when you have just a few minutes to

A Sincere Thank You to Our Donors

Thank you to Dr. Bernard Meisner for his generous donation to C-MITES. He has donated $2,000 per year for the past five years to the C-MITES scholarship fund. Dr. Meisner’s gift enabled a significant number of financially needy students to participate in C-MITES Weekend Workshops. Thank you!

In addition, many anonymous C-MITES families and friends have made donations from $5 to $250 over the past year. These donations totaled over $2,974 in the past 12 months, and they have made a great addition to our scholarship fund. Thank you!

One of the families receiving a scholarship wrote:

“My family would like to thank you for the very generous scholarship for our daughter. Without this scholarship, she would not be able to afford the C-MITES classes. The past two years, she has participated in two summer classes. Both were amazing opportunities. She learned so much and enjoyed the classes. We are so grateful!”

Professional Development
for Teachers

C-MITES is continuing to offer its Professional Development series for teachers and administrators who work with gifted students. The sessions for the 2010-2011 school year will be held at Carnegie Mellon University. Check our website at www.cmu.edu/cmites for a registration form. You are also welcome to provide this information to a teacher who might be interested. C-MITES awards ACT 48 credit for participation in these workshops.

Franny McAleer will provide the first three workshops of the year on differentiating instruction in the regular classroom. Participants may take one, two or three of the workshops.

The fourth workshop, taught by C-MITES Director Dr. Ann Lupkowski Shoplik, will focus on the topics of acceleration and developing math talent. The cost of each workshop is $85

Save the dates:

Session I: October 6, 2010
Session II: November 17, 2010
Session III: March 23, 2011
Session IV: April, 2011

C-MITES NEWS Fall 2010
C-MITES in the Summer

As we began the summer program this year we had over 1190 requests for summer placement. Some of the classes had well over 100 student applicants. The C-MITES Summer Program has become quite popular. In fact, news of our program has spread around the globe! We had students from Brazil, Korea and Taiwan send in applications. This year’s summer group consisted of six students from Qatar, one from Canada, two from California, Virginia, Ohio, New York, West Virginia and one each from Florida and the state of Washington. C-MITES friendships now go across the country and even the ocean!


There were twelve different classes on the CMU campus. For six weeks students were seen programming robots to follow lines, navigate through mazes and even follow the students around the classroom. The green engineers were busy developing designs to improve our environment while the Dollars and Sense class was shaping their financial futures! Amusement Park Physics students were seen measuring G-forces on the park swings, merry-go-rounds and even at Kennywood Park! The science students were seen sifting through clay and dirt attempting to identify all the rocks and minerals they uncovered. The Bridge Boom class had constructed a variety of bridges while the Solar System Astronomy students searched through the telescope to locate the morning moon high above Flagstaff Hill. The Roaming Ancient Rome student donned their togas and designed shields and archways. The Programming Using Alice students in the Wean Hall computer cluster created outstanding computer games and stories!

There were 32 classes at 18 different sites during the program. Twenty-six were in Allegheny County and six were in other counties. In June there were 21 classes and in July there were 13 classes. A total of 16 math classes, 16 science classes and 2 humanities class were offered and enjoyed by the 487 students who participated. Thanks to those students who shared a part of their summer in the C-MITES program and to the teachers who made it possible!

Teacher Feature

The teacher featured in this issue of the C-MITES Newsletter joined our program in the summer of 1998. Mrs. Dottie Cloherty began teaching The Advertising Edge: Persuasive Writing and Speaking that summer. Now, twelve years later, Mrs. Cloherty has taught a variety of humanities courses and made them fun and enjoyable for all of the students who participated!

The other courses Dottie has taught over the years include A Splash of Poetry, Smart Advertising, Can You Sell Dog Food to a Cat?, Pot Luck Poetry, Video Game of Clue, Crafting Your Writing, Advanced Creative Writing, and Yuk and Song Lyrics. In Can You Sell Dog Food to a Cat?, students learn the art of persuasion and advertising appeals used in commercials. Her students create commercials and perform in class. When you walk by her classroom door on a weekend she is teaching, the sounds of laughter and excitement can be heard echoing throughout the whole corridor. Her students really enjoy using humor to convince the consumer to purchase their products. In the Video Game of Clue class, students learn the importance of observation and deductive thinking. They become fact finders and solve unique cases by determining who the criminals are and where they committed their crimes. To add an additional challenge to the class, students secretly adopt the identity of one of the suspects. The game is exhilarating, and the successful “detectives” correctly identify the secret identities of the players.

Students who have taken Dottie’s courses have commented on how much they were able to learn and how exciting it was learning! Teachers who have worked with Dottie want to work with her again, because she is enjoyable to work with and is truly wonderful!

Mrs. Cloherty taught at Saint Anselm School and in the Fox Chapel School District before joining C-MITES. Her degree from Edinboro University is in English and she has credits at the University of Pittsburgh and Penn State University. Dottie and her husband Kevin have three children (Kevin, Kelly and Sean) who have also worked as teaching assistants in the C-MITES program. We just have not figured out a way to get dad involved! The grandchildren, Max and Colt, keep the whole family on their toes. Dottie is truly an outstanding C-MITES teacher, and we are very lucky (and thankful) to have her as an instructor in our program.
The Light that Shines Upon Me
By Peyton Moore, 5th Grade
Connoquenessing Valley Elementary School

The light that shines upon me
The light that shines so bright
The light that shines in the morning
And goes down at night
We walk in the morning
And we walk at night
The light oh it shines so bright
The light shines upon me
Gives me glory

Matthew and Margaret
By Laura Ward, 8th Grade
Eden Christian Academy

This is a stupid poem
But here it goes
This is a stupid poem
That all people know
This is a stupid poem
But here I go
Matthew and Margaret
Margaret and Matthew
Loved a love of no regrets
A love that no person forgets
Margaret and Matthew
Matthew and Margaret
Fed one another cashews
And frowns grew rusty from disuse
Matthew and Margaret
Margaret and Matthew
Loved filled with laughter
Cried and survived the harshest matters
Margaret and Matthew
Matthew and Margaret
Died
At each other’s side
But neither cried
They smiled
Because they looked into each other’s eyes
And saw a love that never, never dies
Now it’s up to you
You’ve got to read between the lines
Now it’s time to decide
If this is a stupid poem
Or a story of love and life
Of treasure and time
And most of all, of you and I

Outstanding C-MITES Students
Do you know any outstanding C-MITES students? We would like to feature stories about such students in the pages of our newsletter. We want to hear about the accomplishments of current and former C-MITES students. Perhaps you did an interesting science project in middle school, or you have already graduated from high school and are willing to share information about your college experiences, or maybe you have already entered the work world and you have some career advice for younger people. We welcome your input! Parents and teachers might nominate a student for one of these articles, or students are welcome to nominate themselves and share their stories. Send an email to cmites@cmu.edu or drop a note to the C-MITES address. We look forward to reading about you!

Behind the Scenes at C-MITES
We would like to send out a big thank you to our graduating seniors for their hard work at C-MITES! Amanda Cole, Vinny Giacalone, and Evelyn Mann have worked for us for one or more years while attending Carnegie Mellon. They packed the supply boxes for classes, labeled and stuffed envelopes, worked at the registration desk on weekends, made reminder phone calls, and photocopied handouts for classes (among other things!). C-MITES couldn’t function without their hard work and dedication. Evelyn, Vinny, and Amanda graduated from Carnegie Mellon in May, and we are very proud of their achievements! We will miss them very much!

A Fond Farewell
We would like to say, “Goodbye and good luck” to Barb Dunn, C-MITES Program Assistant. Barb has worked with the C-MITES program in various capacities since 1997. Over the past 13 years, Barb has been a teacher, teaching assistant, and a member of the office staff. Barb, we thank you for your hard work and dedication on behalf of C-MITES. We will miss you!
### T-shirts! Sweatshirts! Backpacks!

Order your C-MITES apparel today!

Order your very own tie-dye C-MITES t-shirt, sweatshirt and/or backpack and be the envy of all your friends! Simply fill out the order form and return it to our office with your check made payable to “Carnegie Mellon University.”

* The C-MITES tie-dye t-shirt has the “C-MITES Carnegie Mellon” logo. Cost is $17.

* The C-MITES sweatshirts are forest green. They have a hood and zipper and feature the Carnegie Mellon C-MITES logo. Cost is $27.

* The C-MITES backpack is a black string backpack with a red and white C-MITES logo. Cost is $17.

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

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**Make check payable to Carnegie Mellon University**

**Send to:**

C-MITES  
5136 Margaret Morrison St., MMP30  
Carnegie Mellon University  
Pittsburgh, PA 15213

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Number of t-shirts X $17 = $__________  
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Number of backpacks X $17 = $__________  
TOTAL ENCLOSED = $__________  
(Shipping & handling included in prices)
C-MITES NEEDS YOUR HELP

Dear Friend of C-MITES:

As you may know, C-MITES is funded by grants, gifts, and income received from course tuition. Although approximately 85% of our income is derived from tuition, we still depend on grants and gifts to pay for our ongoing office expenses and for scholarships.

If you would like to make a donation to C-MITES, please complete and return the form to the right. You may wish to ask your employer whether they would match your contribution. Any amount would be gratefully appreciated. Please indicate whether or not you would like your name published as a donor in the next issue of our newsletter. Your contribution is tax-deductible, and you will receive a letter from Carnegie Mellon University acknowledging your gift. People making a donation of $100 or more can have their names listed on the C-MITES Summer Program t-shirt.

Thank you again for supporting C-MITES!

Sincerely,

Ann Lupkowski Shoplak
C-MITES Director

Raymond T. Budd
Web Designer

Barbara Matthews
C-MITES Assistant

I would like to make a donation to the C-MITES program.

Amount: $ ____________________

___ My employer will match my contribution

I would/would not (circle) like my name to appear in the C-MITES Newsletter as a donor to the program.

Name as you would like it to appear in the newsletter:

Name _________________________________

If donation is $100 or more, your name can be listed on the back of the C-MITES Summer Program t-shirt.

Please make checks payable to Carnegie Mellon University, and send to:

C-MITES
Carnegie Mellon University
5136 Margaret Morrison St., MMP30
Pittsburgh, PA 15213

Thank You!

“When he came out of class today, he had that ‘Christmas morning’ face – the class was fabulous!”

~ Parent of a student in Robot Race Cars