

SCIENCE OLYMPIAD NEWSLETTER



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John C. Cairns

Editors

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Gerard J. Putz

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*2004 National Tournament Winners
Division C*

<i>Place</i>	<i>School</i>	<i>State</i>	<i>Coach</i>
<i>1</i>	<i>Fayetteville-Manlius High School</i>	<i>NY</i>	<i>Jamie Cucinotta</i>
<i>2</i>	<i>Grand Haven High School</i>	<i>MI</i>	<i>Michael Reed</i>
<i>3</i>	<i>Harriston High School</i>	<i>PA</i>	<i>Brian Gaurin</i>
<i>4</i>	<i>Troy High School</i>	<i>CA</i>	<i>Kurt Wahl</i>
<i>5</i>	<i>Solon High School</i>	<i>OH</i>	<i>Penny Valentini</i>
<i>6</i>	<i>Centerville High School</i>	<i>OH</i>	<i>Donna Ross</i>
<i>7</i>	<i>Poudre High School</i>	<i>CO</i>	<i>Jack Lundt</i>
<i>8</i>	<i>Penncrest High School</i>	<i>PA</i>	<i>Ed Somers</i>
<i>9</i>	<i>New Trier High School</i>	<i>IL</i>	<i>Jan Leonhardt</i>
<i>10</i>	<i>Ward Melville High School</i>	<i>NY</i>	<i>George J. Baldo</i>





*2004 National Tournament Winners
Division B*

<i>Place</i>	<i>School</i>	<i>State</i>	<i>Coach</i>
<i>1</i>	<i>Booth Middle School</i>	<i>GA</i>	<i>Mary Wilde</i>
<i>2</i>	<i>Community Middle School</i>	<i>NJ</i>	<i>Virginia Baner</i>
<i>3</i>	<i>Shadyside Academy</i>	<i>PA</i>	<i>William C. Erler</i>
<i>4</i>	<i>Thomas Jefferson Middle School</i>	<i>IN</i>	<i>Richard Bender</i>
<i>5</i>	<i>Solon Middle School</i>	<i>OH</i>	<i>Drew Kirian</i>
<i>6</i>	<i>El Rancho Middle School</i>	<i>CA</i>	<i>Richard Walker</i>
<i>7</i>	<i>White Pines Middle School</i>	<i>MI</i>	<i>Rhonda Bird</i>
<i>8</i>	<i>A. W. Coolidge Middle School</i>	<i>MA</i>	<i>Paul Guidetti</i>
<i>9</i>	<i>Davidson JB Middle School</i>	<i>NC</i>	<i>Ralph F. Pillsbury</i>
<i>10</i>	<i>South Middle School</i>	<i>IL</i>	<i>Katie Kaufman</i>



Cairns' Role to Change In Science Olympiad

There comes a time in each person's life when it is important to take more of a very scarce resource, time, for family, friends, and other avocations. I am nearing that period.

I love the Science Olympiad and all the students, teachers, coaches, event supervisors, state directors, parents, and all the others that I have had to opportunity to work with over the past 20+ years. It has been quite a ride! To give you some incite into my reasoning for my change in role, I am going to reprint a couple of articles that I wrote over the past few years for the DTS (Delaware Teachers of Science) Newsletter

The column is known as "Cairns Corner". Some of the material concerns Delawareans only, but I believe the column will give the reader some insight into my world over the past few years. But before I do that I should forewarn the unsuspecting of you that I love puns. When doing literally thousands of workshops in my home state, I always preceded each section of each one with one or more puns. So it is with my column(s) in the DTS Newsletter.

Cairns Corner #5

I was talking to a friend recently who had just returned from Salt Lake City. He had been out to enjoy the recent Olympic games. He told me an interesting story that I thought might be of interest to science teachers. It seems that Bo Johnson won first prize in the

decathlon. As is the custom, his wife Judy Johnson was asked to present the wreath to the victor. It was Bo's first time at the Olympics. He didn't know what to do with the wreath, so he hung it over his arm. Immediately a voice from the stands shouted, "Judy's garland goes somewhere over the brain Bo!"

I've often been asked about the origin and early history of the Science Olympiad in Delaware. It all started serendipitously! It all began back in the early to mid 70's. A college in North Carolina (St. Andrew's Presbyterian) began sending out information to high schools in this region. The flyers concerned their Olympiad project. Each spring students from nearby states were invited to send competitive teams to North Carolina to have fun, learn science, learn about the college and earn medals and trophies.

I had been fascinated with the concept since I first got the info in the early 70's. I had always been interested in using games as a method of teaching science. In any case I had no money, and more importantly no time with three young kids running around the house. I really had no time to investigate!

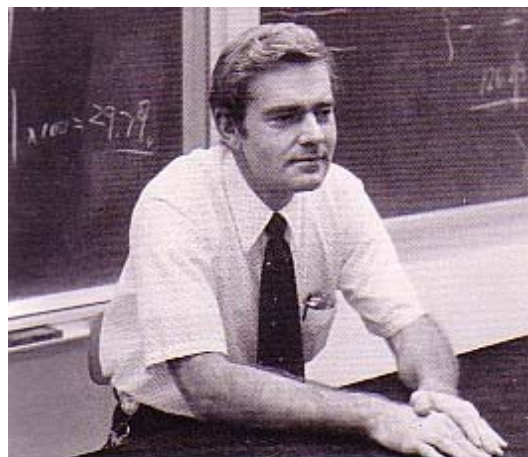
The Science Supervisor with the Department of Public Instruction (DPI) was visiting Dover High School one day in late spring of 1975 and asked if he could do anything for me! I took advantage of the offer and as they say the rest is history. (Throughout it's early years, from the late 50's to the early 90's, the supervisors of various curricular areas at DPI/DOE were required to visit Delaware schools at least 4 days a week while they were in session.)

The State Science Supervisor, Dr. Douglas R. Mac Beth, visited St. Andrews the following spring and was most impressed with the operation. It was great fun for the competitors, a great opportunity for DPI to play an important role in the education of our children, and a great opportunity for a small college to showcase itself. In short it was a win, win, win situation!

In the late spring of 1976, Doug appointed me to the steering committee to organize an Olympiad in Delaware. The committee was made up of the following people:

Carolyn Haas	Physics Teacher, Brandywine H.S.
Jack Cairns	Chemistry Teacher, Dover H. S.
Jim O'Neill	Biology Teacher, Lake Forest H.S.
John Shwed	Plant Mgr., DuPont Nylon
H.R. Williams	Delaware State College
Emil Sammack	Research Dir., Playtex Intl.

The committee remained intact and oversaw the Delaware Science Olympiad's from 1976-1979 until Doug left Delaware for a job as assistant superintendent of schools in southeastern Pennsylvania. However some significant changes took place. Carolyn left Brandywine for Salem Community College in South Jersey; Jim left Lake Forest to run Parks and Recreation for Department of Natural Resources and Environmental Control (DNREC), while I replaced Doug as State Science Supervisor at DPI.



John Cairns

(From 1977 Dover High School Yearbook)

But I digress. The committee decided to hold our first Olympiad at Delaware State College in the spring of 1977. At that time only high schools were eligible. There were 12 events and only 21 schools attended.

Events at the first Senior High Olympiad were:

Science Bowl (4)	Rocks to Riches (1)
Qualitative Analysis (2)	Titration Race (1)
Clay Boats (1)	Estimating (1)
Scavenger Hunt (1)	Name Organism (1)
Periodic Table Quiz (1)	Glass Working (1)
Quick Calculator (1)	Obstacle Course (4)

The numbers in parenthesis after the name of the event are the value of the event in scoring. Five points were awarded every first place, 3 points for each second place and 1 point for each third place. To determine the real point value you must multiply the place number by the value of the event. Thus a first place in Science Bowl or Obstacle Course was 5×4 or 20 points, a third place in Qualitative Analysis would earn 1×2 or 2 points towards team score. Team points were awarded only for the first three places.

Teams attending the first Olympiad were:

A. I. DuPont	Brandywine	Caesar Rodney
Cape Henlopen	De La Warr	Delcastle
Delmar	Dover	Dover A. F. Base
Glasgow	Lake Forest	Laurel
Mt. Pleasant	Newark	P. S. duPont
Seaford	Smyrna	Sussex Central
McKean	William Penn	Wilmington

Dover took the 1st place trophy with 49 points; Caesar Rodney took 2nd place with 32 points and A. I. DuPont took 3rd place also with 32 points. C. R. took second place in a tiebreaker calculated by the value factor as defined above.

Each student got an Olympic style medal similar to those in use today for first through third place. In fact, the same company produces the current Science Olympiad medals and trophies. Students in first place also received a small trophy. A traveling cup was awarded the first place team. However each school also received \$50 for each first place finish! The schools could use it for the purchase of lab materials.

The saga will continue next edition, but I needed to tell you something important... Two prawns, in the tropical waters of the Caribbean, were swimming around in the sea. Justin and Christian were very happy except that larger fish that patrolled the reef were constantly harassing them.

One day Justin announced that he wished that he was a shark; then they wouldn't have to be concerned about being eaten. As Justin had it firmly in his mind to become a predator, a mysterious cod appears and says, "Your wish is granted," and lo and behold, Justin turned into a shark. Horrified, Christian

immediately swam away afraid of being eaten by his old mate.

Time went on and Justin found himself becoming bored and lonely as a shark. All his old mates simply swam away when Justin came close to them. Justin didn't realize that his new menacing appearance was the cause of his sad plight. While swimming alone one day, he sees the mysterious cod again and can't believe his luck. Justin figured that the fish could change him back into a prawn.

He begs the cod to change him back so, lo and behold; he is turned into a tiny prawn again. With tears of joy in his tiny little eyes, Justin swam back to his friends and brought them all a cocktail. Looking around the old reef, he searched for his old pal.

"Where's Christian," he asked. "He's at home, distraught that his old friend changed sides to the enemy and became a shark," was the reply.

Eager to put things right again and end the mutual pain and torture, he set off to Christian's house. As he opened the coral gate, memories came flooding back.

He banged on the door and shouted, "It's me Justin, your old pal, come out and see me again."

Christian replied, "No way man, you'll eat me. You're a shark, the enemy, and I'll not; be tricked."

Justin cried back, "No, I'm not. That was the old me. I've changed. I've found Cod, I'm a prawn again, Christian!"

Cairns Corner # 6

Scientists at MIT have reportedly announced that they have discovered a new species of weevil that feeds solely on cotton fibers found in men's shorts. The researchers have no idea where the species originated, and are appealing to the general public, as well as the rest of the scientific community for any information that would help to identify the insect. They are anxious to identify that weevil that lurks in the shorts of men!

I do need to tell you a short story about "how" the Science Olympiad helped me and others at Dover High School do a little traveling. During the fall of 1976, I had asked my principal and a good friend, Pat Lynn, for money to attend a Chem. Ed conference that was to be held at the University of Waterloo in the summer of 1977. I wanted to give him plenty of time to squirrel the money away.

With a very sad face he informed me that there was no money and there would be no money from the school district for travel. Budgets were tight and he had already had a 10% cut and was expecting another round of cuts. I asked him to keep me in mind should anything open up. He agreed, but was not very positive!

That might have been the end of the story except for the fact that I walked into the teachers lounge in March and another friend was describing a wild weekend that he had just had in Atlantic City. (This was long before gambling in AC.) He had just returned from a basketball clinic. He bragged that he

had not attended one session, but that he had been to every bar and strip joint in town and wasn't sober until he returned home. I was outraged and charged down to the principal's office in a flash. I walked by the secretary and into his private office and slammed the door. I wanted an explanation! He, matter of factly, said "that it was school district policy that coaches who put their reputation on the line every Tuesday and Friday are special people and further coaches of all other sports get similar opportunities to travel on district funds to attend clinics." He also said, "what they do when they get to the clinic is none of my business". I was asked to leave his office! I did, but I really resented the situation.

I now fast forward to the last Saturday in April of 1977. That was the date of the first Science Olympiad. As fate would have it I did not have my car at Del State that day. My wife had dropped me off early that morning. Thus I had to ask one of my students if they would give me a lift home. We won the 1st annual Delaware High School Science Olympiad.

I mentioned that we might want to make a stop on the way home from the Olympiad for I was sure that Mr. Lynn would like to see the trophy! As it turned out the kids were more excited about winning the state championship than I was and they all jumped into cars and we had a caravan of students and parents tooting their horns and generally celebrating being number one! The trophy was a large silver cup that said, "State of Delaware Science Champions".

The principal knew something was happening long before he saw us. He



Jack is congratulated by Harry Camper, President of the Capital School District Board of Education for winning the first State Championship ever won by a Dover School in any competition.

was working in the yard and heard the horns. We pulled up and he walked to the street. The students handed him the trophy. He congratulated the kids, shook hands with excited parents, and then said to me, “ I guess that you’ll be wanting to talk about that trip to the chemistry conference. I’ll be in my office by 7:15AM on Monday morning. Bring me an estimate of the cost.”

I’m told that the Board of Education changed their policy” to include any teacher/coach that put their reputation on the line” would be entitled to attend a workshop, clinic, or staff development project at district expense. The policy is

in effect as far as I know twenty-five years later!

But I digress...

Doug Macbeth led the first two Science Olympiads in Delaware. Doug left DPI in the fall of 1978 for an assistant superintendent of school’s job in Hamburg, PA. The next spring I took his place at the Department and I led the Olympiad for the next 12-14 years. When it began, all the money to run the competition came from donations that Doug got primarily, from DuPont. You may recall that in addition to medals, trophies were awarded to first place in each event and a traveling trophy was given to the winning team. Also cash awards were made to the school science department for equipment and supplies for placing first in each of our events.

The Science Olympiad was sold to the State Board of Education as a public high school competition. However the leadership at DPI was never “happy” with Doug’s solicitation of state businesses. After Doug left; no more soliciting was permitted by DPI; but they did provide funds from a high school funding line in the State budget. State money cannot be expended except in specific ways. It took several years to convince the State Board of Education to allow the Olympiad to charge a registration fee. The fee permitted us to obey the law and permitted the addition of non-public high schools. It also permitted us to begin to plan an Olympiad competition for Junior High School students.

The first Junior High School Science Olympiad was held on March 26, 1983. It was not called Science Olympiad but rather it was known as the Science Olympics. It held that name until 1985 when the national tournament was organized. For the first several years, we did things quite differently from how it is done today. The organization for 1983 was:

Ninth Grade only

Science Bowl (4)
 Obstacle Course (4)
 Password (2)
 Measurement (2)
 Super Magnet (2)
 Glurch (2)
 Periodic Table (2)
 Bottle Music (5)
 Each grade level competed separately!

Eighth Grade only

Science Bowl (4)
 Obstacle Course (4)
 Password (2)
 Measurement (2)
 Crystal Growing (2)
 Rocks to Riches (2)
 Kite Flying (5)
 Map Making (2)

Seventh Grade only

Science Bowl (4)
 Obstacle Course (4)
 Password (2)
 Measurement (2)
 Name Organism(2)
 Biomass (2)
 Barge (2)
 Finger Printing (2)

We added the following competitions for 1984.

Safety Poster (2)
 Black Box (2)
 Electricity (2)
 Puzzler (1)

Tea Making (2)
 Facts in Five (1)
 Astronomy (1)
 Puzzler (1)

Bones (1)
 Scavenger Hunt (2)
 Using a Key (2)
 Biotrivia (2)

The numbers in parenthesis are the number of students required for each competition. Science Bowl and Password were played three times with different competitors for each round. Thus your four Science Bowl ninth grade competitors would be tied up from 8:30 AM until 10:00 AM. Scores for these two events were summed to determine the winners. The Science Bowl supervisors thus would be tied up all day with three rounds for 9th grade, three rounds for 8th grade and three rounds for 7th grade.

No overall winning team was named in the first year! In year two we added a school trophy for 1st place in New Castle County, 1st place in Kent County, and 1st place in Sussex County. (Editor's note. Delaware has only three counties and we decided to give first place trophies to the best school in each county.)

Registration fees were \$20 and \$25 in each of the first two years respectively. Junior High Schools were permitted one team only. The following teams participated during the first year:

New Castle County

Talley
 Gauger
 George Read
 Middletown
 Conrad
 Skyline
 H.B. DuPont
 Ogletown
 Hanby
 Shue

Kent County

Central Dover
 William Henry
 Chipman
 C.R.

Sussex County

Laurel
 Selbyville
 Lewes
 Milford
 Seaford

Each and every junior high school got at least one set of medals. Many thought that one team might take all the medals. This was not true. The medals were well distributed across all three counties and across the schools within the counties. We did a count of medals at the time. We did not take into consideration whether they were for 1st, 2nd, or 3rd place. So in terms of total medals Gauger garnered the most with 29, followed by George Read with 23, and Lewes had 20.

Once upon a time the son of a hard working woodcutter announced that he would like to attend his first village fair. His father agreed that he could go, but as the young man was leaving on his donkey, he called after him, “Whatever you do, do not take the shortcut through the Magic Forest!”

Pedro had a wonderful time at the fair. Unfortunately, it was very late when the singing and dancing ended and despite his father’s warning, he did start back through the Magic Forest. Midway along the path a gnome appeared and shook his fist at Pedro.

“How dare you trespass on our property after midnight”, the gnome cried! “Just for that, I am changing your donkey into a dragon!” And with a snap of his little fingers, he did.

Pedro was startled to find himself riding on a dragon. However, the beast behaved himself well and they finally made it home. The youth’s father was waiting up when the exhausted son crept into the house.

“Are you alright”, the woodcutter asked anxiously?

“Oh yes, father”, Pedro replied. “I had a wonderful time! But I have to confess one thing: “my ass is a dragon!”

I think that this pun is most appropriate! I have been creating, running and supervising Science Olympiads since 1976. It is, was and has been a very important part of my life. My children competed in the Olympiad and later acted in the role of event supervisor. I am hoping to get my grandchildren involved. In fact one of those other things I want to do is to help organize an Olympiad in Prince William County, Virginia since my oldest grandchild will be in the sixth grade this year in that school district. I want him to have the opportunity to feel the excitement of working toward a goal of excellence science and the excitement of working as a member of a team.

So I really won’t really be leaving Science Olympiad, but rather placing the emphasis in another direction. It was a gas and I’ll miss the summer workshops, the NSTA conventions, the Hammond clinic, and all the wonderful people that have become a part of my life along this voyage. Bon Voyage!

DID SCIENCE OLYMPIAD LEAD YOU TO A CAREER?

Jennifer Kopach, Director of Marketing

Of the Science Olympiad alumni responding to our 2004 online survey, 86% said that participating in Science Olympiad had a direct impact on their career choice. Some of their current workplaces in scientific fields are as follows:

Merck & Co.

General Motors

IBM

Department of Energy/MIT

Michigan Aerospace Corporation

URS Corporation

Star Engineering Services, Inc.

University of Washington

Raytheon

Temple U. School of Medicine

GRI

Virginia Tech

Keystone Applied Technologies

Lockheed Martin

Inquiry Databases

Rensselaer Polytechnic Institute

University of Michigan

Tufts University

Robotic Solutions

3M

Salk Institute

University of Pennsylvania

Miami Herald

Pfizer Pharmaceuticals

Louisiana State Police Crime Lab

Front Range Community College

College Pro Painters

MKEC Engineering Consultants

TAP Pharmaceuticals

National Hispanic University

Washington State Department of

Ecology

University of Hawaii

United States Army



**2004-2005 Delaware State
Science Olympiad Co-Director
and Water Quality National
Event Supervisor, Penney Hall.**

Selected quotes:

"Science Olympiad definitely opened my eyes to careers in math and science.

It helped me to appreciate physics as well as team problem solving."

- Jennifer Cordero, Engineering Faculty, National Hispanic University

"Science Olympiad established and confirmed my desire to pursue engineering in college and beyond. My experiences associated with Science Olympiad are among the best of my life."

- Brett Strayer, Systems Engineer, Lockheed Martin

"Participating in Science Olympiad along with having an amazing 8th grade earth science teacher really put me on a path to a career in science. I went on to attend a science technology magnet high school and majored in environmental science and geography."

- Allison Gray, Environmental Ed. and Outreach Specialist, WA State Dept. of Ecology



Students participating in Remote Sensing

"(Without Science Olympiad), I would not have majored in science and become a teacher. In both middle school and high school my independent study in Science Olympiad gave me a passion for genetics, molecular biology and science in general."

- Jennifer Dye, Science Department Chair, Pope John Paul II High School, Tennessee



Students checking their chromatograms in Science Crime Busters.

"Science Olympiad helped me to learn how to work with team members, each with different skills and talents, to accomplish a mutual goal. This has been an invaluable lesson for my current line of work, where I manage the resources

of many engineers and scientists to come up with a solution to challenging problems."

- Anthony Hays, Division Manager, Mechanical Systems, Michigan Aerospace Corporation

"As a young girl, being on the Science Olympiad with other girls created an important support group; together we discovered that women can succeed in the fields of engineering, math and science. My positive experience in Science Olympiad directly impacted my decision to major in engineering and to pursue a career in IT consulting."

- Vanessa Rogers, Management Consultant, IBM



Students are enjoying Qualitative Analysis and identifying unknown ionic species.



MEET THE COACHES:

From time to time the Science Olympiad is asked about coaches and coaching technique. We are asked for role models that others may emulate. As the beginning of an on-going feature of this newsletter, we have requested information from a number of these outstanding individuals. To date three have responded and their stories are below!

Tom Merrill

**Yankton Middle School
South Dakota
Entering their 21st Year**

Over the past twenty years the Yankton Middle School Science Olympiad Team has won every single South Dakota State Tournament and has attended every National Tournament. How does one account for such unyielding success?

From the start, the Yankton Middle School Science Olympiad Team has remained an all-volunteer organization. Financial support comes from the community, as private donations from service organizations and individuals. The S.O. program is not a school district activity since the Coaches are not paid for their involvement. The school district allows the use of the Middle School labs and classrooms for instruction and conduction our tournaments.

In February, any student who wishes may compete in a local tournament held and modeled after state and national tournaments. The local tournament is set up and run by volunteers from the science, math, and other departments in our building, as well as students who participate on the high school team. Not only do these teachers and older students help with events, but also aid the younger students along the

way toward the State and National tournaments.



Mr. Tom Merrill

Students pick and choose the events that they would like to compete in and then are allowed to come in and practice for these events starting in December at least two days per week. The students on their own, beyond the school day, study, as well as, construct and test the engineering events. Most of these students are well rounded and excel in athletics, drama, music, and other school activities. They also tend to be hard-working, highly motivated, creative thinkers, who like to work “out of the box”. None of them are picked for the team based upon grade point average or the fact that they may or may not have been part of the team in the past, but rather on their placement in the local event. In other words, they earn their position on the team.

As soon as the team is chosen or self-selected, as it were, for the State Tournament, the parents are brought into the process. The parents become highly involved in the process of community outreach seeking support from local organizations and media outlets. With the help of their parents, students put on presentations about Science Olympiad to community organizations like Kiwanis, Rotary, and so forth. Candy bar sales, car washes, and serving banquets for community groups are also part of the fund-raising effort to help

pay for materials and travel expenses to the National Tournaments.

The success of the Middle School Science Olympiad program in Yankton is due in part to tradition. Where as the success of the other co-curricular programs in the Yankton public schools are well established, none matches the success of the 'Science Olympiad. The parents and students see it as a way to go beyond the classroom and become involved with topics that may lead to careers in the sciences. (In a quick survey, well over half the participants have or are entering careers in science or science-related fields). Most students that compete at the middle school level also try out for the high school team. This team, under the direction of Robert Medeck all these years, has won 18 of 19 State Tournaments held in that division. The community is behind the program 1000%. The financial institutions, medical community, service organizations, and the retail businesses support the students by funding materials and expenses for the national experience.

Tom Merrill and John Gevens Co-Coached the Middle School Science Olympiad Team until 1993. Gevens moved out of the district to enter administration that year. Since that time Merrill has continued the winning tradition of the Yankton Middle School.

Merrill is not only involved in professional educational organization such, as NEA, NSTA, GSA, but also I in the community by serving on the Chamber of Commerce committees and environmental education boards. He keeps his ties with the Boy Scouts after serving as Scout Master of troop # 133 for over 30m years. Hobbies include camping, canoeing, and backpacking.

Drs. Thomas and Jillann Hounsell

Henry B. duPont Middle School Hockessin, Delaware 22 year participants

In early 1983 we received a phone call from Rosie Bruner, who was the secretary to our State Supervisor of Science, Jack Cairns. Most of Delaware's Science teachers were frequent recipients of phone calls from Jack, he was and is a great motivator of science educators throughout the state and nation. However, this particular call was quite different. Jack's requests were normally asking for help with or attendance at one of his many high quality workshops that were notorious for uniting the science teachers throughout Delaware for days or perhaps even weeks at a time. Since Jack was always committed to helping others I felt no particular apprehension in returning his call to find out what he needed. Little did I know that I was about to be captured for 22 years into what I believe is the best Science activity that has ever been conducted for students, the Science Olympics (now Science Olympiad). Jack as usual simply asked if I would be interested in bringing some students to the Delaware State College in Dover, Delaware to compete in a number of science events. He also said that the best ones in each event would be awarded medals and trophies in public recognition for their success. Wow, I thought, what a great idea, rewarding the students in an academic competition with medals and trophies just like athletic competitions.

That first year, with the assistance of my wife Jillann, a career Science teacher, temporarily at home raising our four wonderful children, we fielded a team of eight students, one of whom was our oldest daughter. Words cannot describe our surprise, and their excitement, when they were able to earn 16 medals and trophies. Never before had either of us experienced this level of student response to academics.

As you have probably already guessed, during the second year we received another call from Jack Cairns who said that he had really exciting news. This year there would be another Science tournament, but this time the winner would be eligible to represent the State of Delaware in the First Annual National Science Olympics Tournament to be held at Michigan State University. The students were so excited with the news that we could not have considered saying no to their desire to enter again.

As a result of a tremendously supportive group of parents and help from the community we were able to win the State competition and earn the right to represent Delaware at the National Science Olympiad. In 1988 my wife, Jillann, returned to the classroom teaching eighth grade Earth and Space Science at the Alexis I. duPont Middle School. This created a bit of a dilemma since these two schools would ultimately be competing against each other. To further complicate matters our former middle school Science Olympians who were now attending the local High School, Alexis I. duPont, asked if we would coach their team. Both Jillann and I have always believed that it does not really matter what



Jill and Tom Hounsell

name is on your shirt, but rather what interest and excitement you are able to create in students about Science and education in general. As a result of this self-imposed philosophy we were able to create a

community of Science Olympians and coaches. We sent the offer out to other local schools, the scientific community, interested parents, and other teachers. The response was fantastic. Everyone involved had the same goal, to help students learn to love science and apparently it worked. The students did well in virtually every event that involved multiple coaches and schools. However, sometimes success also has its own burdens. That year my Henry B. duPont team, Jillann's Alexis I. duPont Middle School's team, as well as our Alexis I. duPont High School team qualified to represent Delaware at the National Science Olympiad in Kansas City. We took two buses, three teams from different schools and every event coach we could coerce into going. The competition and the wonderful experiences during the 52 hour bus ride truly solidified the group of "Scienterrific" students and coaches. The treasured memories made possible by the Science Olympiad will live in the minds of all forever. Most of the parent/coaches and scientists that participated that year are still involved in the program today.

The following year Jillann transferred to Henry B. duPont Middle School where we happily share side-by-side labs. We still offer to work with other schools as well as our own and continue to involve as many parents, teachers, and local scientists as possible in the coaching of the students. All four of our own children have not only passed through our classrooms, but they have all participated with great success in the Science Olympiad program in both Middle School and High School. All of them have been active in the coaching of the current students involved in the Olympiad. Our eldest grandchild, the son of our first Science Olympiad daughter, has joined the Elementary Olympiad team this year and has been very excited about the spring competition. For our family the Science Olympiad has now had a positive impact three generations.

The Wilde Bunch

**Booth Middle School
Peachtree City, Georgia**

Because Science Olympiad has become such a “family” ordeal for the Wilde’s, coaching the various events becomes the discussion of many family dinners. When one asks what we contribute our success to, so many aspects are involved with such a complex question; dedicated students and parents, a coaching staff that loves working with kids, and a state director who organized a good state program, but one of the main factors is the involvement of the family. My husband coaches events and attends the Hammond and summer workshop with me, and my daughter, who teaches science next door to me, also coaches events. Therefore, when we go to competitions, it becomes a “family vacation”. Why have we been doing Science Olympiad for almost 20 years? Because we have a ball with the kids, before and after school, on weekends, and sometimes at lock-ins at school. It can become an obsession, an addiction, but we think it is a good one!



Mary and Chuck Wilde, daughter Tammy, and her children.

The Wildes are the most successful coaches in the history of the National Tournament. Mary, Chuck and family have won the Division B National on _____ occasions and tied for the National Title on one occasion.

DISTINGUISHED SERVICE AWARDEES

Dr. Milton Stompler

**Georgia State University
Atlanta, GA**

2004 Distinguished Service Award recipient: an example of how peoples’ careers change during their lifetime.

Milton Stompler, the Georgia state director, began his career earning BS, MS and PhD degrees in physics while working in government and industrial research laboratories. After a post-doctoral position at the University of Delaware, he took a faculty position at the SUNY College at Potsdam, NY. After a few years he was appointed to be the director of Sponsored Programs and was successful in tying together research programs from different science departments and greatly increasing federal research funding.

Milt then moved to Virginia Tech as associate dean for research where he was responsible for the university’s sponsored research funding. While there, he became one of relatively few academics who was effective at working with corporate sponsors and he also participated in drafting implementation of the Federal Grant and Cooperative Agreement Act of 1977, a major simplification of federal funding procedures.

He next joined Georgia Tech as the associate director of grants and contracts where he became more involved in both



Milt Stompler

university-government and university-corporate relations and, his work in the latter area was recognized by the Society of Research Administrators with the Hartford-Nicholsen Award in 1984.

In 1991, when Georgia Tech learned it would be the Olympic Village for the 1996 Summer Games, Milt was tasked to see if Tech might host world-class academic competitions in 1996 as well. As a result of Milt attending the 1992 NSO, Georgia Tech successfully bid to host the 1996 NSO. It was only then that Georgia Tech thought to associate with the Georgia SO program and Milt became State Director in 1994. Over the next four years the program doubled in size.

While his duties were still primarily in research administration, he became increasingly fond of SO and eventually decided to pursue those duties full time. SO's appeal was a result of the hands-on nature of most activities and the positive effect it was having on so many students. In order to assume SO as a full-time activity he

moved the program to Emory University and later to Georgia State University. While at Emory, he obtained funding from NSF to study the impact of SO on Georgia students, teachers and schools. That project has recently been completed.

Milt serves on the NSO Advisory Committee and, perhaps because his hobby is flying (where he holds a commercial license and instrument rating), he is currently developing a SO event based upon balsa wood gliders as a possible replacement for Wright Stuff.

Ms. Jane Nall

Alabama State Director

Jane Nall is a fixture at the national tournament of the Science Olympiad. She is unwavering in her quest for new (and better) ways to use the elementary science materials produced by the Science Olympiad in trying to raise science standards of students in Alabama. In fact, Jane has written at least two articles for the Alabama Academy of Science concerning that very topic. In 2002, Jane wrote *Using Science Olympiad to Teach the National Standards for Science Education* that was published by the aforementioned group in the Alabama Academy of Science Journal.

In addition, Jane can be found working hard on the various Olympiad committees, particularly in the biological area. She is also very willing to share her expertise in all the debates that come to the larger committee as we attempt to balance the various competing areas of science as well as trying always to have a good balance between events that highlight a student's understanding of content, process, and application (technology).

Jane has had extensive teaching experience in both the public and private secondary

schools in her state. In addition she has had extensive adjunct work in at least four colleges or universities in Alabama—University of Mobile, Faulkner State Community College, Jefferson Davis Community College and Reid State Technical College.



Jane Nall

At the secondary level, Jane taught not only the life sciences, but also the physical sciences, speech, English and was the supervisor/coach of the cheerleading squad, boys and girls tennis as well as sponsor of the local chapter of the Academy, Science Faire, and School Store!

At the tertiary level, Jane Nall has taught life sciences almost exclusively. She either is currently teaching part-time or has taught one or more of the following during her career at the University level: Marine Biology, Anatomy, Physiology, and Environmental Science, Zoology, Botany, and Medical Terminology.

In her resume, Jane states, “my educational objective is to provide leadership, useful

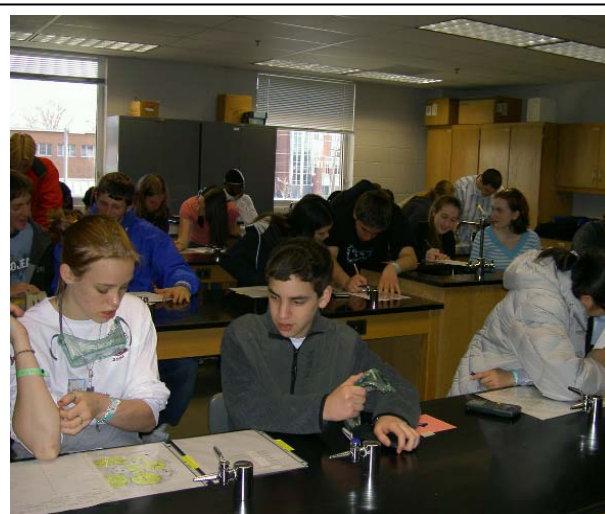
skills and experiences to foster development of human potential”. This editor applauds her expression and must add that we at the Olympiad believe that Jane is accomplishing that goal for all the kids in the schools in Alabama.

In conclusion, I asked Jane if she could in a few sentences explain to all of us “why” she works so hard for the Science Olympiad in Alabama as well as the rest of the United States. Her response follows:

Why I am involved in Science Olympiad?

“I continue to work with Science Olympiad because it is my philanthropy. “Doing science” has always been my choice of learning for my students, and seeing teams enjoying, enthusiastic and excited, having a great time while doing science is a joy for me to witness. As Alabama Director, an appointed position by Alabama Academy of Science, I have the opportunity to “give back.” The time I put forth as director affords me opportunities to watch the joys of doing science by the participants during practice and in competition.

Also, the people with whom I am in the company I have found to be folks with whom I joy being associated.”



Students working on Cell Biology

Safety Quiz

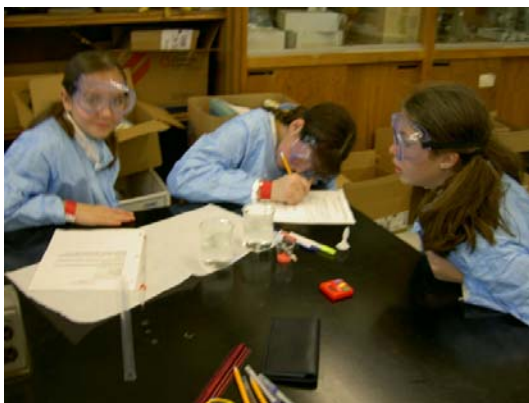
Liability and the Science Teacher You Are The Jury!

The Science Olympiad is interested in safety, just as all schools, teachers, administrators, and boards of education are. Take the Quiz. Do your best! See if you can get a passing score. Do not peek at the end for answers until you have thought each case thoroughly, carefully, and completely! These pictures have nothing to do with the cases themselves, but were taken at random at various Olympiads.

In each of the following cases, a science teacher was being sued for liability. As a member of the jury, your task is to judge these teachers as being liable or not liable for resulting injuries.

Case # 1

A biology teacher requested a student to bring a glass beaker from the back of the room to his demonstration table. The student slipped and received serious wounds from the broken beaker.



Note everyone is wearing proper eye protection!

Case #2

A student sustained severe burns when her open-flame, alcohol-wick burner ignited wood alcohol that was leaking from a defective plastic jug stored in the back of the room. The experiment took place in a physical science class that was moved by the principal from the science lab to a mathematics classroom.



Are these students use proper lab coats? Note the long hair is pulled back and out of harms way!

Case #3

A student in a chemistry laboratory injured himself while inserting a piece of glass tubing into a rubber stopper. The teacher had previously demonstrated and properly instructed all the students concerning the method and danger involved. The student attempted to force the glass tubing into the stopper and was injured when the tubing snapped and went through the palm of his hand.

Case #4

During physics lab a teacher stepped out of the classroom for a few minutes to obtain a reference book from the library. In her absence, a serious accident occurred.

Case #5

A junior high school pupil was severely injured in an experiment that resulted in an explosion. The students (in groups of 3) following laboratory directions, made a crude gunpowder, and exploded it twice. The third time, one of the students either mistakenly or intentionally substituted one chemical for another, resulting in the explosion.

Case #6

On a field trip a science teacher led his students across a precarious looking footbridge. The bridge collapsed causing serious injury to several students.



Did these students need safety goggles?

Case #7

A teacher asked two students to clean a chemical stockroom, warning them of an unlabeled jar of acid on a high shelf. A scuffle caused the acid to fall and the students were seriously burned.



Do these students need safety goggles?

Case #8

A student was sent to the drugstore in his own car to purchase some hydrogen peroxide. While returning, he hit another car when he ran a red light. He had no insurance and the accident victim sued the teacher.



Please note that proper aprons are being used in this lab activity

Case #9

A student was asked to water the plants in the greenhouse lab adjoining the botany classroom. The student carried a glass bottle full of water, tried to climb a chair and was seriously injured when the chair collapsed. The chair was in good repair.

Case #10

An eighth grade student was severely burned when an alcohol burner, known to be defective, exploded when she attempted to relight it. The teacher had instructed her on the use of the burner; helped her set up a science project in the school gym, lit the burner and returned to class. The burner went out, and in relighting it, an explosion occurred.



Looks like everybody is having a good time with Mission Possible.

Case #11

A student was injured while demonstrating a volcano to friends while waiting for a school bus. The student had conducted the volcano demonstration several times in class.

Case #12

A student fainted and sustained injuries from a fall that resulted from giving blood in a biology lab activity.



Case #13

A 17 year old was injured while conducting an experiment at home with stolen chemicals. The chemicals, which were normally stored in a locked storeroom, were stolen by two other students when a janitor, without authorization, allowed them access to the room.

Case #14

A special education student received injuries to his hand from a saw as the result of doing something he was not authorized to do. The teacher had demonstrated the proper use of the saw, observed each student to make sure that they could operate the saw safely, and was supervising in the immediate vicinity when the accident occurred.

What did the court say? What happened each case?

- | | |
|-----------------------|-----------------------|
| 1. Not Liable | 2. Liable |
| 3. Not Liable | 4. Liable |
| 5. Liable | 6. Liable |
| 7. Not Liable | 8. Liable |
| 9. Not Liable | 10. Liable |
| 11. Liable | 12. Not Liable |
| 13. Not Liable | 14. Not Liable |

How well did you do with the exercise? Were you correct in all fourteen cases? Even if you were correct in all cases, please review all your safety procedures with your students until they know them as well as you do!

Safety is the number one concern of the Science Olympiad! This year as in the past several years the Olympiad has attempted to change and refine its safety rules and regulations. We are always striving for a 100% safety record in all the invitational, local, regional, State and, of course our national tournament.

Please, please do your part. Prepare your students to observe all safety rules and requirements. In the building events, make certain that students wear appropriate, projectile-safe polycarbonate goggles to prevent flying objects to enter the eye. In the chemical events, coach your children to wear splash resistant, indirectly vented goggles to prevent chemicals from entering the eye! You may also note that again this year, the chemists are recommending no open toed shoes, laboratory coats and/aprons along with clothing that covers the legs to the ankles!

Although the Science Olympiad is not responsible for the half-million competing students and the safety conditions that may or may not exist in their homes, but we need you –the coach to take the time to give accurate, timely advice to kids, and parents if necessary, working in their basements, kitchens, or garages on Science Olympiad projects. ***Safety is everyone's business and let us spend our time emphasizing it!***

Editors note: As indicated at the beginning of this section on safety, the pictures were taken at random at various state tournaments and were taken after the event had ended. We staged children without proper eye protection for example to get you thinking about safety issues and conditions in areas of interest to you as a coach.

WE GET LETTERS...

From a former competitor:

Why do I think Science Olympiad is, in general, too easy...

The overall concept of the competition -- to have teams of students from schools all over the nation compete to show the best mastery of a wide variety of scientific concepts through solid performance on an array of specialized tests -- is really quite good. In my mind, at least, this is what Science Olympiad is/should be about. Intimately tied in with this aim, I see Science Olympiad as a potentially powerful source of motivation for schools to develop solid academic programs in a broad range of scientific disciplines.

Those are some of my more abstract ideas about the role of SO in the nation's science education system; let me now focus on why I feel the current incarnation of SO falls short of achieving these aims. Breaking the competition up into ~20 separate events is a good way to identify each team's strengths and weaknesses, and to allow individual (or pairs of) students to focus on and exhibit their academic prowess in personal areas of expertise. The way I see it, each event should be so designed that every participant (from top to bottom) will be challenged to achieve his/her full potential in order to gain as high a result as possible. After such an event (at the National Finals, for example), even the gold medal winners will feel that they have been pushed to their own limits, and thus will feel

a great sense of pride and accomplishment in their success.



As a specific example, let me focus on the Chemistry Lab event. I'm singling this event out because I was closely involved with it for several years, and subsequently (in college) become friends with a few of my competitors from other high schools who participated in that event at the same time. Perhaps the problem is that the organizers of the event underestimate the potential abilities of the nation's top high school students. By senior year, all of us had taken the Advanced Placement Chemistry course at our respective high schools, and most of us had even taken additional courses at local colleges.

Now compare this level of experience with the level of material covered by the event's rules. The way the event is written is that there is a very specific (and short) list of concepts that will appear during the exam. With such a closed set of ideas to be tested on, it's not difficult for any reasonably strong student to achieve full mastery of the event with a bit of directed studying. In fact, within my high school 1st year honors chemistry

class, I'd estimate that somewhere around the top 10% of students would have been capable of more or less mastering the list of topics on the official rules sheet. With a situation like this, how can one expect the results of the National Championship to clearly/correctly identify the nation's top chemistry students? In the end, the difference between the top spots will come down to who makes fewer trivial errors with insignificant things such as the number of digits to include in the answer to a calculation, rather than by who had the broadest and deepest knowledge of relevant chemical concepts.

How can this situation be improved? In my personal opinion, and the opinions of several of my peers and my former coach, reducing the specificity in the rules would be a major step forward. Saying, for example, "This year, students will be tested on concepts in acid/base chemistry, electrochemistry, and chemical thermodynamics" would give teams reasonable guidance in a few areas on which to focus their concentration, but at the same time leave open the possibility of exploring these areas in great depth. At a National Finals, I would expect the exam, then, to start out with some basic level material in these areas, and then ramp up the intensity in such a way as to force students to really synthesize what they have learned and stretch their understanding of the concepts to the limit.

During the time while I was competing, the Southern California State Finals Chem Lab tests were written by an individual who appeared to embrace

these same ideals. In writing the tests, he often went beyond the scope of material outlined in the event description; the result, however, was a series of excellent exams that forced everyone to pull out every shred of knowledge on hand to try to formulate answers to all of the questions asked. Finishing one of those tests always felt like an accomplishment, and the two consecutive gold medals that I earned there in 1998 and 1999 are among my proudest science olympiad accomplishments. Compared to those exams, the Nationals tests were quite disappointing, and my partners and I never really felt like we were given a chance to demonstrate the extent of our knowledge there.

My former coach once told me that he had suggested increasing the scope of material tested in these events (Chem Lab, Phys Lab, etc), but was met with resistance because the material he suggested including was considered "too advanced" for the average high school student. This is exactly the wrong reason to not make such changes. In a competition meant to inspire and challenge students, the level of material should be aimed at the top, not the middle. Students will only strive to achieve to the level of the goals set out before them. Setting the bar low only inhibits their quest to achieve their full potential.

Because it has been several years since I competed, I'm not sure about the exact state of affairs with the current selection of events. I have kept in touch with my high school and former coach, however, so I have been following developments along the way. After I get the information you

mentioned, I should be able to offer some more specific ideas about how the current state of affairs could be improved...

And a follow-up email responding to a request for additional information:

Hi. I received your SO info packet in the mail yesterday. It's interesting and has some good info, although I can't say I completely agree with everything in there. Particularly, what doesn't sound right is the sentence "Each year, events are updated to reflect the ever-changing nature of the latest advances in biology, earth science, chemistry, physics, computers, astronomy, engineering and technology." Having some personal involvement with the frontiers of modern chemistry and physics, I would say that the changes in the events from year to year have very little to do with the changing faces of these fields. Honestly, the physics lab event contains nothing that is considered "modern" physics, so the contradiction is apparent there. This is not necessarily a bad thing, since much of modern physics is beyond the scope of what a high schooler could reasonably prepare for, but it's not good to misrepresent what's going on. I do, however, think that it would be good if some more modern topics were brought into the event to give students something a little more challenging to shoot for and to help broaden their perspective a bit. Inclined planes and simple pendula are nice, but that's not the kind of mental exercise the brochure says that SO strives to be about.

My previous email already went into these issues in detail, so I shouldn't

harp on it much more. I was interested to hear what your response was to those comments, though, and also whether or not these issues would be addressed with Drs. Putz and Cairns at the head of the SO organization. Don't get me wrong -- SO was a very valuable and enjoyable experience for me -- I just see a lot of room to make it even better and to make it into more of a first class operation. From this stuff you sent I see that the words and the intentions are there, but I would really like to see it just take that one last step it needs.

You may or may not have read the recent reports that foreign enrollment in grad schools in the US is down. This is a very sad and unfortunate matter for the country and the scientific community as a whole. If things continue as they are, we need to get the youth not just thinking that science is fun. Rather, we need to get them to feel that science is both intriguing and intellectually rewarding; we need to inspire them to be the researchers and leaders of the future.



Editor's Response:

It was a delight to hear from you and see how well that you are doing. I want to thank you for your very

thoughtful comments. The topic of complexity continues to be a major struggle that we try to keep in balance.

Science Olympiad attempts to model what it preaches and we truly believe that Science Education is important for all students including the novice and advanced students. So we strive to seek a balance of events to attract and challenge both levels. Actually we get much more criticism on the side of being too complex for most schools and students and many feel that we are losing teams as a consequence. The numbers do not, however, support that result.

We also pride ourselves on the very strong link to the National Science Education Standards so although this years Physics Lab is more advanced than inclined planes it has a strong link to what is expected for HS Physics students. Also see the other events like Astronomy and Disease Detective above that are definitely on the cutting edge/frontiers of modern science. Granted Egg Drop and Awesome Aquifer may be introductory problem solving, but I trust that you can understand how they might appeal to the less talented student. Although that is actually not the case either if you were to believe some of the reports we get from past devotees that are now Packaging Engineers, NASA Scientist and Groundwater Geologist.

Have you thought about maybe helping out at one of the nearby tournaments or helping the committees create or edit an event?

Science Olympiad Alumni Where Are They Now?

Jennifer Kopach, Director of Marketing

To celebrate the 20th anniversary of national competition, Science Olympiad has organized an effort to track down its most illustrious alumni. By reading stories placed in newspapers across the country, former participants of Science Olympiad have been directed to the official web site www.soinc.org to share their stories. Here are a few of the best:

Rich Radke

Assistant Professor, Department of
Electrical, Computer and Systems
Engineering

Rensselaer Polytechnic Institute

"I believe that Science Olympiad was very helpful in showing me that science could be interesting and fun, and that there were organizations that rewarded people for achievement in science and math," said an 18-year-old Radke in 1993. Today, Radke is a celebrated researcher and the most recent winner of the National Science Foundation's Early Career Development Award for his work with networked cameras.

Looking back on his involvement with Science Olympiad, Radke noted that events like Egg Drop and Metric Estimation forced him to "solve open-ended problems, which is really a gateway into engineering."

Tova Peltz

Geotechnical Engineer
GRI

Competed from 1991 to 1995

BS in geology, MIT, MS in geotechnical engineering, University of California, Berkeley

"I developed an interest in geology in middle school, and competed in geology-oriented events at Science Olympiad. It was an opportunity to continue my geology studies.

Learning to identify and classify 200+ rocks, minerals and fossils absolutely benefited me throughout college and graduate school in mineralogy courses, geology field courses, and in engineering with soil mechanics and rock and soil strength properties. I am still in touch with one of my Science Olympiad teammates from middle and high school

who is working on a Ph.D. in Fluvial Geomorphology and Fish Passage through the University of Michigan civil engineering program. With some frequency we marvel at how our childhood geekiness has developed into amazing careers and so much passion for our chosen fields!"



Mark Tourre

Forensic DNA Analyst
Louisiana State Police Crime Lab
Competed from 1989 to 1994

BS in Zoology, Michigan State University,
Masters of Science and Forensic Science,
Marshall University

"Science Olympiad focused my plans in college and life to science. I love science, and knew I would go that way throughout life. Science Olympiad allowed me to see a broad range of scientific fields at any given time and allowed me to hone in on what I truly liked < not to mention the friendships, relationships, and common bonds that I have for life with former teammates and coaches. Science Olympiad ranks as one of the top experiences in my life!"

Corinne Richards

Ph.D. Student, Ecology and Evolution
University of Michigan
Competed from 1994 to 1997

BS in Biology, BS in Chemical Engineering,
University of Michigan

"I first learned about reptiles and amphibians through Science Olympiad. Now I am a Ph.D. student studying tropical amphibian conservation. Right now I am writing to you from Panama City, Panama, where I am on a weekend hiatus from fieldwork in a national park to preserve the Panamanian Golden Frog. I would tell anyone that

Science Olympiad had a major impact on my career choice and turning me on to science. It is a great program."



**Cell Biology event supervisors
Robbie Schroeder and Harry Dillner**

Shannon Beagle
Business Owner/Software Developer
Inquiry Databases

Competed from 1993 to 1995
Degree in Biochemistry/Biophysics,
Rensselaer Polytechnic Institute
"Science Olympiad led me to find friends
who liked me for who I was. It was
wonderful to be surrounded by people my
age that loved science as much as I did.

Science Olympiad helped me fit in¹ in high
school and was one of the factors why I
pursued a career in science." Recently
selected to join the Kansas City Teaching
Fellows program, she plans to bring Science
Olympiad into high-needs schools in the KC
metro area. "I learned how fun and exciting
science could be while I was a member of
our SO team, and I know that I can convey
that enthusiasm for science to my future
students. In a couple of years, I hope to be
coaching a Science Olympiad team of my
own."

Mark Rivard
Associate Professor, Medical Physicist
Tufts University
Competed to 1985
Degree in Engineering/Physics, University of
Michigan, M.S. in Radiological Physics,
Wayne State University, Ph.D. in Medical
Physics, Wayne State University
"Science Olympiad reinforced my love of

science and bolstered my confidence to be
proven successful in such a competition."
Linsey Marr
Assistant Professor, Civil and Environmental
Engineering
Virginia Tech
Competed from 1986 to 1992
While attending Harvard University eleven
years ago, Marr, a gold medalist in Cell
Biology at the national tournament, said,
"After winning the event, I more seriously
considered biology as a career. I grew to be
more concerned about the direct social
value of my work." Today, Marr studies the
effects of air pollution on the earth's
atmosphere, human health, agriculture and
global climate. The fun she experienced
while participating in tournaments translated
to Marr's current approach to college-level
teaching. In the classroom at Virginia Tech,
she brings the excitement of Science
Olympiad to her students through hands-on
activities like the ones in competition.

Marcus Brown
Design Engineer
Robotic Solutions
Competed from 1995 to 1999
Degree in Mechanical Engineering,
Oklahoma State
"Science Olympiad has given me a drive for
project excellence that carried through
college and into my career. The national
competitions were the most fun I had in high
school."

Matthew Althoff
Pharmaceutical Sales
TAP Pharmaceuticals
Competed from 1988 to 1993
Degree in Chemistry, University of Notre
Dame
Seven-time letter winner in track/cross
country at ND, NCAA championship
competitor
Back in 1993, was quoted as saying, "I like
the competitiveness of Science Olympiad. It
makes science so much more fun. In fact,
Science Olympiad makes a sport out of
science without having the O^2 jock¹
atmosphere surrounding. Being an athlete
as well, I sincerely appreciate this other
side¹ to competition." Now uses his
chemistry background to assist with the

technical and chemical aspects of his pharmaceutical business. "Science Olympiad was a major force in our family. I came from a family of 10 kids, and most of us did Science Olympiad. My 7th and 8th grade siblings are involved in Yankton, South Dakota now. My brother, Eric, competed for five years, got his Ph.D. in Chemical Biology from Columbia University and is now a professor at the University of Chicago. Although he was a football champion, my mother remembers that he took more pride in his Science Olympiad medals than the athletic awards."



Students are really taking Cell Biology seriously.

Michael Barhorst
Pharmacist
Competed from 1989 to 1994
Doctor of Pharmacy Degree
"Science Olympiad gave me the confidence and knowledge to pursue an education beyond high school. In addition, it helped give me the social skills needed to succeed in life. Without Science Olympiad I'm not sure I'd be in the great position I'm in today."

Douglas McLemore
Chemistry Instructor
Front Range Community College
Competed from 1989 to 1991
Bachelor, Masters Degrees in Chemistry
Colorado Event Supervisor, National, State and Regional (1996-2003)
"I would have been a musician but I ended up teaching chemistry and soon astronomy

and geology at the college level. I had a lot of fun participating in Science Olympiad and feel that it helped me develop many connections that I still have today."

Steve Gerst
Business Management
Six Sigma/3M
Competed from 1987 to 1989
M.S., Ph.D. in Chemistry, University of Washington
"Science Olympiad definitely got me excited from chemistry class to practice and helped steer me toward chemistry in college!" As an employee for 3M, Gerst currently leads a corporate initiative in which small teams of people improve business and manufacturing processes using the scientific method. The main focus of the initiative, called Six Sigma, is to make data-driven decisions. "I certainly use the problem-solving skills I developed throughout my chemistry education. More important, however, is the ability to work on a team. Formal education tends to focus mainly on individual skills rather than people skills and leadership. Participation in team activities like Science Olympiad provides important training in these areas. When solid analytical skills are coupled with strong people skills, a person can achieve amazing results."



Looks like these students are enjoying Physics Lab

Paul Shinn
Researcher/DNA Sequencing Coordinator
Salk Institute
Competed from 1987 to 1989
Degrees in Biochemistry and Chemistry,
University of Pennsylvania
Was recently recognized with his research
team in Washington, D.C. for completing the
genome sequencing of the first flowering
plant, *Arabidopsis thaliana*. "Science
Olympiad brought other kids like me
together to further enjoy and explore science
which you just can't get in school alone. It
gave me and many of my friends a creative
outlet to show off our talents at being little
MacGuyvers rather than little Dennis the
Menaces that only took apart toasters."

Relating his experience with Science
Olympiad to his work at the Salk Institute,
Shinn says, "At work I get to create and
invent. What I have taken from Science
Olympiad is that there is more than one way
to skin a cat. Our project changes every
year or so and with that comes a change in
protocols and methods. It's up to me to
adapt to the situation with the tools we
already have. It's like that Science
Olympiad challenge, drop an egg without
breaking it. Well, it would have been great
to have bubble wrap or a pillow and a week
to finish. But all we've got are straws and
tape and it needs to be done today and it
has to be perfect? I guess I'll have to make
do. That's what work is like sometimes and
that's what Science Olympiad taught me."



**Looks like a home made musical
instrument**



How much will this bridge hold?

Elaine Hayes
Ph.D. in Musicology/Music Historian
University of Pennsylvania
Competed from 1987 to 1991
"The things I remember and appreciate most
about Science Olympiad were the
teamwork-oriented problem solving & the
opportunity to have a bunch of smart people
work together, share ideas, and get excited
about problem solving. There is a unique
spark of energy that accompanies those
kinds of situations which, in my experience,
is hard to find. Another wonderful thing
about Science Olympiad is that it brought
together a bunch of pretty serious, studious
kids and allowed us to have some fun and
feel comfortable being big nerds. I am still
friends with a handful of the people I did
Science Olympiad with back in 1987. The
problem solving skills and the intellectual
curiosity that events such as Science
Olympiad encouraged did play an important
role in me wanting to pursue a graduate
degree. When I think back on my Science
Olympiad experiences I believe that they
helped me become a more self confident
and assertive young woman. It gave me an
outlet to excel at science and math on an
equal footing with the boys. I know that
these skills and the belief in myself that it
fostered have helped me in everything I
have done since."

Daniel Grech
Staff Writer
MIAMI HERALD
Competed from 1993 to 1995
Bachelor of Arts, Princeton University
"Science Olympiad was one of the best social experiences I've ever had. Beyond the friendships, it is the highest level of success I have achieved in any national competition."

Eric Price
Software Developer
Competed from 1995 to 1999
Degree in Computer Science, Georgia Tech
"Science Olympiad gave me something to excel at in school that was both public and at a national level. Science Olympiad also taught me just how much knowledge there is outside of school books, both in information and practical how-to knowledge, especially in the ad hoc building events."

Michael Del Corso
Enterprise Architecture Associate
Merck & Co.
Competed from 1995 to 1997
Degrees in Computer Engineering, Stevens Institute of Technology
New Jersey State Robo-Billiards Co-Supervisor (2003-2004)
"My ability to think outside the box started with Science Olympiad! Now my favorite days of the year are when I'm volunteering at the tournaments."

Miranda Kurbin
Teacher, Science Olympiad Coach
New Mark Middle School
Competed from 1992 to 1996
Degree in Elementary and Middle School Education
"I am a middle school teacher, coaching my own Science Olympiad team, expanding the horizons of young scientists."

Alumni Statistics

The Science Olympiad has received more than 300 hits to the Alumni Web Pages in about one year of operation. Interestingly enough we have received only 3 or 4 hits

from folks that are learning to swear. Too bad that they also hadn't learned to write complete sentences so that we could quote them!

The overwhelming number of responses came from four distinct groups: students who are in the middle school and are still competing in the Olympiad, students still in high school, students still in college and graduates of high school and/or college.

Middle school student's responses are interesting because they are characteristic of everything that we know about middle school kids. They are very concrete while answering questions. They give answers of yes or no. Little to no elaboration!

High School students are much more mature and offer extended responses. Many cite the Science Olympiad with assisting them in socialization issues and with the developing of great high school friends along with giving them an outlet to express their interest in studying science. For the most part they give us credit for assisting them in consideration of career choices.

Current college students give us credit for assisting them to make career decisions and most importantly many, many are still involved with coaching of their home school's team. Frequently these folks also work with regional and state tournaments at the college or university that they attend. Some have also created a Science Olympiad College Club to assist in running the tournaments.

The vast majority of hits come from graduates and you have been reading some of their quotes in this and previous articles. I can add nothing to their effusive praise, but I am impressed with those who did not end up in scientific careers. They, to a person, said that they want the Science Olympiad experience for their children when they get to the middle or high school level!

We, no, you as coaches have made a significant difference in the lives of many; many youngsters are YOU are to be congratulated!