

STEM SESSION TRANSCRIPT

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CeAnn Chalker

Hello! I'm CeAnn Chalker, and I have worn many many hats over the years in Science Olympiad. I started out as a Science Olympiad parent back in 1990. That's when I became aware of Science Olympiad when our oldest son Alan Chalker was a freshmen in high school and joined the Science Olympiad team. All four of our children were involved in their school years, and continue to be involved in various ways to the present day in Science Olympiad. They all recognize what Science Olympiad did for them during their school years and continue to give back to the program so other students can benefit from their experiences. As a Science Olympiad coach then, I started the middle school team in 1996, when our third child, Matthew Chalker, entered middle school. Our coaches had two main goals: to provide the opportunity for students to expand their knowledge in various areas of science and to have students learn to work as a team. The model then, and that we still continue to use, is "We strive for excellence. Excellence is not judged by winning. Excellence is judged by trying and doing the best job possible as a team member."

I moved on to become part of the technology committee. I co-chaired the committee with Erv Zimmerman back in the early 2000s, and became the chair of the technology committee when Erv retired. As technology committee chair, I oversee seven tech events, as you may know, the build events. Structures, Vehicles, Aeronautical (the flight events) and Tech Design, which includes Mission, Robotics, Roller Coaster, Electronics, and Detector Building. On the committee there are over 20 experts in the events including engineers and alumni. From there, I became part of the Rules Committee, and my involvement at the National Science Olympiad level morphed into head of the Rules Committee as their Chair, as I helped proofread and edit the rules in their final draft before they went to print. Because I was so familiar with the rules, I became the point of contact for the FAQs and clarifications. I send all FAQs to committee chairs and national event supervisors for answers to questions that are not clear in the rules.

Then on to the National Tournament. In 2003, I helped co-chair The Ohio State University tournament that was sponsored then. In 2013, I chaired the Wright State University National Science Olympiad tournament, and then in 2017 I was the chair of that tournament at Wright State University. Because I was chair of the National Tournaments, I became a member of the National Advisory Committee, and have been a member of that committee for years. As far as Science Olympiad educational opportunities, I've sponsored many for teams and for coaches. Annually, I've sponsored Invitational Tournaments since 1998. I've sponsored the Midwest Coaching Academy, to train over 300 coaches annually since 2004 in Centerville Ohio. I've also taught coaches from across the US at the Science Olympiad Summer Institute annually since 2002.

My actual education background is in accounting. I have a full time job at a large brokerage firm. Many people ask me why do I spend so much time with Science Olympiad? Even my license plate has SO in it. I spend so much time on SO because I have seen the benefits for the students over the last 30 years - not only for our children, but for the thousands of children who have been involved in the program. I've seen students blossom into engineers and scientists because of their experience in participating on a Science Olympiad team. I've seen students realize that it's important to work with others, to share ideas, to research together and to work as a team. I've seen students find that there is always more to learn. I've seen students learn to not be afraid to try something new. And I've seen students find friendships that last a lifetime beyond their school years.



I'd like to introduce Sam Carigliano. He is the CEO of SkyCiv, a national corporate partner. He will be sharing how he has adapted his software especially for SO students and how it helps to prepare them for engineering careers in the digital age.

Sam Carigliano

Hi everyone, my name's Sam and I'm the CEO of SkyCiv Engineering. We're a proud sponsor of the Science Olympiad competition and have been for the last three years. SkyCiv is a structural engineering software program that allows you to model and design your structures like boomilevers and towers before you go out and construct them.

I started the company five years ago with a business partner of mine, and we're glad to be sponsors of the Science Olympiad competition. As part of our sponsorship this year, we took it a little bit further and built an app for students to use during the competition. So up until now, all students would normally use our software for was to design the structures before they went out and built them. But this year, given the current situation that we're all in, we took it a step further and built an app that would actually test the structure and give you a score rating based on perimeters such as the weight of the structure and how much the structure would hold. We're really excited to be a part of this because this is something that had never been done before as far as we had seen on such a scale as being able to roll this out to a national program to so many students in such a short period of time. So we're really excited to work with the organizers of Science Olympiad to develop this app and the feedback we've been getting from the students has been fantastic. They're engaged, they're enjoying learning the software, and for us it's such a thrill to see that side of the competition unfold.

So we actually started SkyCiv as students and we really wanted to learn software before we entered the workforce. We saw that the existing software was difficult and really hard to learn. We were actually students when we started the company, so we have this very deep root in education, and that's why partnering with the Science Olympiad program is so exciting for us because we believe in education and STEM courses so much, and we're really passionate about giving back to the student community. I personally wish we had a competition like this when I was growing up or in Australia at least because it's just such an engaging and inspiring competition. Students learn so much. They can learn software that really prepares them for the industry and I think that's something that Science Olympiad excels far ahead of its other competitions. So once again we're so glad to be part of the program and we hope you all get a lot out of the partnership.

CeAnn Chalker

Now I'd like to introduce Savvas Papadopoulos. Savvas is an SO alumni. He will share with you where his SO experience has led him in the workforce, and how he has continued to give back to the Science Olympiad community.

Savvas Papadopoulos

Hi everyone, my name is Savvas Papadopoulos. I'm a Senior Project Engineer at the Gilbane Building Company, and I'm here to tell you a little bit about how Science Olympiad has influenced my choice in major and my choice in career. I've been involved in Science Olympiad for about 13 years now, since middle school. I started out in middle school as a competitor, went on to high school as a competitor as well, and then moved on to helping run tournaments over the last few years. In middle school, I was just getting involved in Science Olympiad. I'd heard about it in 6th grade, and one of the 7th grade Science Olympiad students came into our class and spoke about doing this thing called Science Olympiad and it sounded interesting. I was interested in the sciences, not particularly one specific area of it, but I was excited.

So my friends and I signed up, and our middle school had a class. We got involved in the class, and the first few days were talking about which events we wanted to be involved in. As a kid, I had always enjoyed flying and flights and



airplanes and that kind of thing. When Wright Stuff came up as an event, me and a friend jumped on the idea and said alright, let's do Wright Stuff, not realizing that would lead to a six or seven year obsession with the flying events and years of tireless work, but it was very enjoyable. So in middle school I was involved in Wright Stuff and Helicopters as they switched out over the years. I became interested in structures and the construction of things and how things get built and refined to work as well as possible.

Over the 6 or 7 years I was involved as a competitor, my team from Long Island went to the regional tournaments as well as the state tournament, and a few invitationals as well towards my senior year of high school, when invitational tournaments led by colleges were just becoming popular. That transitioned a lot into my interest in running tournaments. I got to see the last year or two of high school, these students from college start to run invitational tournaments, and in New York where I'm from, that became something of legend. It became the place to be, to go to these invitational tournaments. When I was starting to apply to schools, and ultimately chose to go to Cornell University, I said to my coach I wanted to be involved in starting a tournament there, and be able to give back and run tournaments that I would've wanted to compete in.

That became possible very quickly because the first year I came to Cornell, I was involved in the first year of the Cornell Invitational tournament. They were already starting up when I got there, and I jumped in and got involved. I was a member of Cornell's invitational board for the four years I was in college, starting off as Build Events Director for the first couple of years, which of course related a lot to my experience with build events before, and then served as President my junior year, and as Advisor my senior year. What I found is that managing an invitational is a lot like managing any project, similar to a construction project. You have a lot of moving parts, you're working with a lot of different people, and a lot of people who may not be involved in Science Olympiad, particularly from the university getting rooms reserved and other logistical aspects ready. I learned a lot about what it is to be able to manage a project, to be able to manage a team, and put together an event or project tangentially that is successful.

As I got on in my college years, I became incredibly interested in construction management as a speciality and ultimately joined Gilbane Building Company as a Project Engineer, and now Senior Project Engineer. What we do day-to-day at Gilbane is we're construction management. We work with architects and engineers and developers and clients to produce projects and see them to completion successfully. A lot of what I've used from my Science Olympiad career and from my major at Cornell is not only knowing what goes into a building so that I can review a drawing and make sure that it's correct, but the mindset of problem solving, the mindset of team building, working with others, communicating effectively to be able to see a project to completion. I'm specifically in the healthcare sector in our New York City office, so we focus on constructing hospital facilities and lab facilities, which I've done both of over the last three years. Even within construction, I get to see the more technical projects, so we have advanced heating and air conditioning facilities for hospitals to more effectively control climate, with lab facilities you see more technical aspects, and it's useful with a background in science and engineering to be able to see and understand what it is the drawings are calling for, what it will take to build whatever it is that we're building.

My advice to current and prospective Science Olympiad competitors is to really embrace not only the knowledge you learn preparing for your events but also the soft skills - the team building aspects, the communication aspects, working together leading a team. These are skills that are going to stay with you, no matter what your major ends up being. Science Olympiad can lead you down a wide variety of opportunities and a wide variety of career paths. What is common amongst all of them is communication, leadership, team building and being able to work with others. I really encourage you to focus on that in addition to everything it is that you do. It's incredible all the things that you all do in preparing for your events and compete in such a challenging environment. I wish you all the best of luck, remember that you are among the best that the world has to offer, the best students, the best scientists, the best engineers, so continue on what you're doing and best of luck.

CeAnn Chalker

Science Olympiad offers so much to everyone. I love when parents say they have never seen their students so interested in a subject. Whether it's studying birds, stars, ecology, electronics or building events, students seem to find their niche. Science Olympiad is not a short-term project in school, it's a long-term project that can carry through a student's lifetime.