

Q: What is IYPT?

A: IYPT is the International Young Physicists Tournament, or the 'Physics World Cup', and was founded in 1988. The IYPT provides 17 open-ended research problems to high school students, then brings together teams from nearly thirty countries to present their experimental findings and debate their merits in a format called 'Physics Fights'. The ultimate goal is for students to make contributions in understanding to the scientific community. The US, unfortunately, has not participated since 2007, but that will change this summer with five students from Phoenixville!

Q: What is a Physics Fight?

A: A Physics Fight involves three teams. One team (The Reporter) must present their research and results to one of the 17 possible research questions – the team finds out one minute prior to presenting which one it is! Another team (the Opponent) must question the Reporting team's decisions on what to study, how they studied it and the conclusions they drew, ultimately engaging them in a vigorous debate on their research. The final team (The Reviewer) must summarize the main points of the other teams and highlight their strengths and weaknesses. Lastly, a panel of judges questions the teams, and then scores each team based on how well they fulfilled their role. The roles then change, and change again. Each Round consists of three Physics Fights and can last three hours.

Q: Why is it important for the US to be involved?

A: The US has been and continues to be a global leader in science and technology, with a broad cultural reach. Many of our businesses and our innovations reach deeply into other countries and cultures. If we wish to remain global leaders in science, we must give our students the opportunities to perform at the same high level reached by students around the world. We also have a responsibility to engage with those students and those varied cultures to foster a closer international community and sense of collaboration. This competition – which is conducted in entirely in English! – is a great opportunity for students from the US to do all of those things. We cannot allow eight years to pass without participating in a competition of this magnitude.

Q: What makes IYPT different from other science competitions?

A: There are several key differences. Compared to paper-and-pencil tests, the IYPT offers students a chance to engage in a different level of problem-solving skills, experimental design, academic research, and presentation and debate skills. Unlike many science-fair style competitions, students are actively trying to make novel contributions to scientific understanding, which have sometimes led to publication in peer-reviewed journals. Lastly, the IYPT focuses on building relationships between students of different cultures, which is missing from most domestic science competitions.

Q: How can people help you achieve your goals?

A: We have two short-term goals. The first goal is make sure that we send the five best students to represent the United States at the 2015 IYPT, which will be held in Thailand in June. To do that, we need to raise money – \$50,000 – to cover travel expenses, host the National

Selection Tournament in March, and obtain equipment and materials necessary to conduct scientific research at a high level.

Our second goal is to perform at the highest level in Thailand. To that end, we need mentors. Mentors would, ideally, have backgrounds in physics or engineering, but we also need help with constructing computer simulations, public speaking, etc. Those interested in being mentors should contact our coach, Mr. Jennings, about how to become a mentor.

Q: What are your long-term goals for US IYPT?

A: We wanted to get this started in Phoenixville during the 2014-2015 school year. After that, we're hoping that more schools from the area and around the country see how exciting an opportunity this is and begin to participate. Having multiple schools involved will make the program more sustainable and raise the quality of our work through friendly competition – and collaboration between students and teachers at different high schools. The US IYPT National Selection Tournament at Phoenixville Middle School, on March 14th, will offer students and teachers a chance to see how amazing IYPT can be. Any and all high school teachers, their students, and college professors, are welcome to contact Mrs. Flora Poloway to register to attend. Drawing from a larger geographic region, or from the country as a whole, will also make the National Selection Tournament and associated national press campaign more beneficial to our sponsors.

Q: What can you offer potential corporate sponsors?

A: First, this is an international competition, and many top international companies, including Samsung, Nokia, Audi and LG, have sponsored and attended the international tournament. We can bring US companies into that mix and will be wearing team apparel that recognizes our top sponsors.

Top sponsors (Gold and Title) will also have access to special receptions, at the US IYPT National Selection Tournament in March and, exclusively for the Title Sponsor, at a Homecoming Reception in mid-July. This will provide photo opportunities to those companies, as well as stories they can tell in their own promotional literature.

All Corporate Sponsors will receive an autographed team photo from Thailand, and recognition in our local and national press campaigns, including on our website. This type of exposure can benefit companies in a variety of ways.

Q: How is Phoenixville the only school involved?

Simply put, I asked. I contacted the President of the IYPT and he said he would love to have the US involved again. The US was involved intermittently from 1999 through 2007. However, there were logistical issues. We've learned from the problems that had faced the US in the past and we're focusing on not just getting there in 2015 but also building a sustainable infrastructure.