

Minnesota Academy of Science Spotlight



MINNESOTA ACADEMY OF SCIENCE

What Minnesota STEM teachers say about the value of the Science & Engineering Fair experience for their students:

“My students didn't do this with friends - they did it all on their own. They learned more about themselves, gained confidence, and got outside of their bubble. The character development in itself was, and is, worth it.”

Message From the Director

by Celia Waldock

Every year we put together “the show” — the ultimate STEM experience for Minnesota middle and high school students at the annual State Science & Engineering Fair (SSEF).

All of the programs we create — including the related Junior Science & Humanities Symposium, the middle and high school Science Bowls, the Winchell Undergraduate Research Symposium, STEM Communicator awards, Science Salons — are special to us. But the Science Fair is the largest gathering of the future of STEM in Minnesota, with 500 regional STEM winners gathering together in one spot to connect with like-minded students outside their region, communicate with professional judges about their research, and get insights that will serve them well into their college and career life.

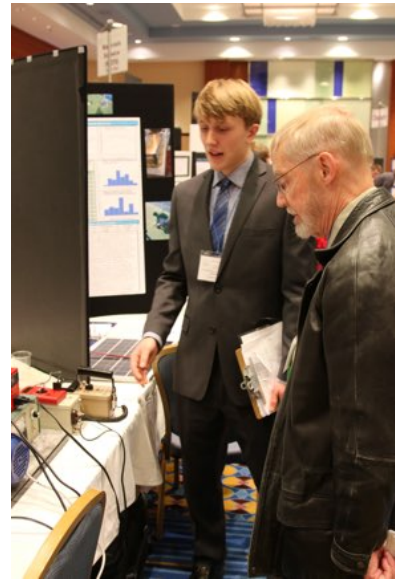
In these pages we salute some of the faces of the 2017 SSEF: students, volunteers, judges, sponsors. (Not included adequately but also essential are the mentors and parents of these students, as well as the MAS staff that works long hours leading up to and including the Big Weekend.)

Big thanks to volunteer photographer Dave Newell, who has rewarded us with his images at most of our events for many years.



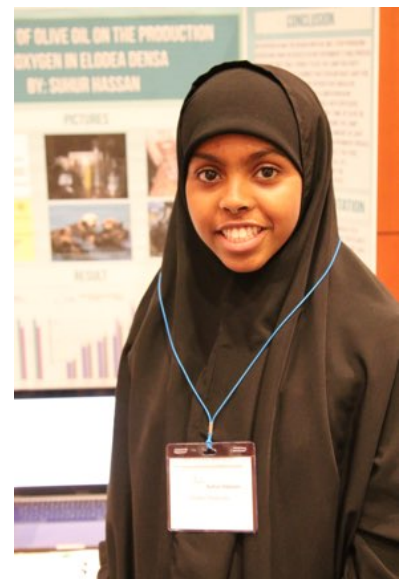
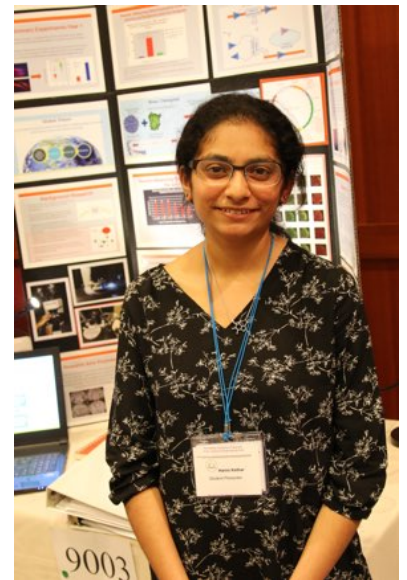
Q: What skills do your students gain as a result of participating in the Science Fair?

- Problem solving, creative thinking, presentation/ speaking, time management, critical thinking, scientific reasoning, statistical analysis/ data analysis
- Public speaking, confidence, self esteem (in some cases). Being part of an activity that isn't a sport.
- Communication, critical thinking, time management
- They learn presentation skills. They learn to interact with adults. They learn how to do science rather than just learn about science.
- Professional connections, speaking effectively, confidence, building a passion for the field, learn and expand new ideas
- Communication, science methods, work ethic, writing, diligence
- Organization, the ability to explain their projects to a variety of people, poise



Q: What skills do your students gain as a result of participating in the Science Fair?

- Curiosity, problem solving, creativity, teamwork
- Communication skills, time management skills, filling out paperwork by themselves, working through scientific struggles, data collection, programming, graphing, etc.
- Confidence in their work as scientists and the value of sharing research.



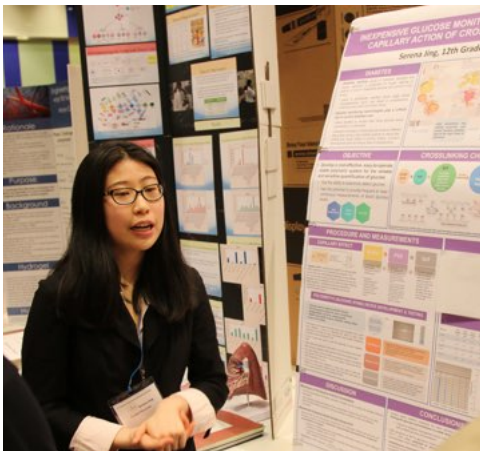
Q: Why is it important for your students to participate in the State Science Fair?

- To promote a love and learning passion for STEM!
- Science Fair gives 6th and 7th grade students a pathway to doing more if classroom science is not challenging enough!
- To gain "real world" experience in presentations and have the chance to go deeper — a project of their choice.



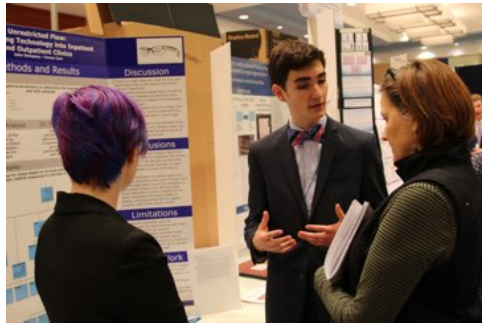
Q: Why is it important for your students to participate in the State Science Fair?

- They learn what doing research is all about. They learn how to present their thoughts in a clear way.
- Forces them to turn their research into an effective story.
- To see that other students are interested in the same things. Meet new people.



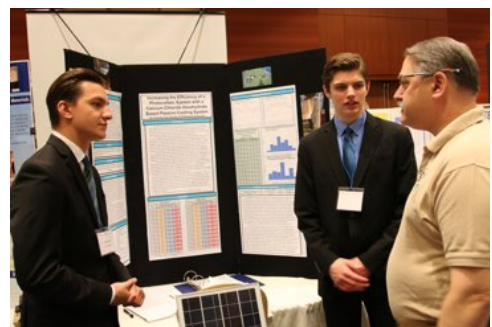
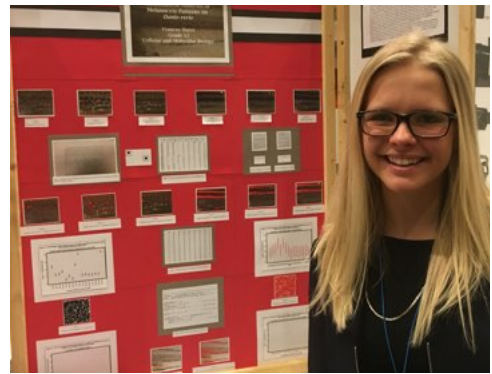
Q: Why is it important for your students to participate in the State Science Fair?

- They get exposed to real science and engineering, they get so many opportunities.
- Experience you can't replicate in school.
- Celebrate their world — attaching a value to their interests beyond athletics.



Q: How does preparing for and participating in the Science Fair prepare your students for college or professional careers?

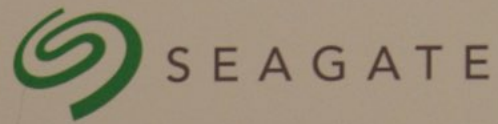
- Gives them insight into what they can do differently in the future. Ideas and focus on what types of research they would like to do.
- Learning how to ask appropriate questions, how to communicate, how to manage time well and be organized. They learn how to do science. Need to learn to collaborate.
- Forces them to present their research formally outside the school community. Gives them a tangible reason to use effective graphics, appropriate statistics and citations. Helps them with speaking skills.
- Improves communication skills. Develops work ethic and importance of meeting deadlines.
- Allows them to see, meet and interact with other highly motivated students.
- It requires them to go above and beyond what they would normally do and be able to do it mostly by themselves.
- Students experience moments of adversity as well as success. They learn to move forward and persevere. They experience managing their time as well.



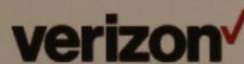


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