

SCIENCE & ENGINEERING FAIR

5 REASONS WHY YOUR CHILD SHOULD PARTICIPATE



Skill Integration

Science fair projects integrate skills from almost every subject that your students have been taught over the years and offers opportunities to learn new skills. Students can apply their existing reading, critical thinking, writing, grammar, mathematics, data analysis, and art skills to their own scientific research. Formal competition provides an avenue for students to practice public speaking and interpersonal communication.



Confidence

Student interest typically drives topic selection for science fair projects. Students learn and apply the scientific method to answer scientific questions to their own research. Science fair projects facilitate student immersion in researching their topic, designing a valid experiment, collecting data, and thinking about the meaning of their results. Many times students become so self-motivated that they forget about the fact that they are refining old skills and learning new ones.



Challenging

Even during early student-directed scientific research, important discoveries and technological advances can emerge. In past decades, automotive, green-energy, chemistry, and agricultural innovations have come to the forefront of the scientific community through student research at the International Science and Engineering Fair (ISEF). For each ISEF winner, the pathway to success began at a local science and engineering fair. Throughout the process, each student researcher learned to overcome and move forward from setbacks and challenges.



Cash and Prizes

Many science and engineering fairs, including the Tri-State Science and Engineering Fair at the University of Southern Indiana, award thousands of dollars and dozens of other prizes each year. Participating in a science fair has also opened the doors for college scholarships and other academic opportunities for students. Locally, regional level science fair winners receive community recognition and earn the right to compete at the state-level competition and possibly advance to the International Science and Engineering Fair.

International Science and Engineering Fair



Ultimately, some students will advance to the International Science and Engineering Fair (ISEF). At ISEF, cash prizes are significantly higher and international competitors are judged by the most prestigious scientists and engineers in the world, including several Nobel Laureates each year.

Not Sure Where to Start?

EXPLORE YOUR INTERESTS! Most successful projects are inspired by student interest. *Like energy drinks?* Analyze the caffeine content of the various drinks! *Like sports?* Analyze when goal scoring is most likely to occur in a soccer game or what statistic is most likely to predict a basketball Final Four winner. *Like to invent?* Mock up a prototype and enter it in our engineering division. *Like music?* Conduct a study on what types of music help human memory the most. *Like to bake?* Look at the impact of kneading time when baking bread. The sky is the limit! Speaking of sky - you could even conduct a research project based on the types of clouds you see in the sky! The SwISTEM Resource Center can help you find the tools you need to conduct your experiment.



Make Connections



Many participants find subject experts to advise them on their chosen topic. You don't have to do this alone! Professors at USI or other local universities are frequently open to providing assistance, and other community members enjoy student interest. Our participants have consulted experts from doctors to Mesker Park zoo staff to statisticians. The staff at SwISTEM can help connect you with the right person to get the information you need.