

Science Fair Projects ~ Are they worth it?



KATHY KITZMANN & TIM FINO
CO-DIRECTORS, SEFMD 2014

WWW.SEFMD.ORG

SF2014@SEFMD.ORG

What is a Science Fair Project?



- A project is an investigation of a topic requiring a student to
 - design an experiment,
 - analyze observations, and
 - arrive at some new conclusion.
- A finished project should consist of
 - a logbook,
 - a report, and
- a visual display of the student's work.

Why have students do SF projects?



- Students learn by doing!
- It teaches students the scientific method.
- Interdisciplinary skills are developed: reading, writing, research, organization, art, design, math, statistics.... and more!
- Students see a project through to completion.
- Doing a project can help develop self-satisfaction and pride.
- There are some great awards!

Levels of Science Fair Competition



- School Fair →
- Local Fair (School District) →
- Regional Fair (SEFMD) →
- State Fair (MSEF) →
- International Fair (ISEF)

Some facts about SEFMD



- 57th year
- Serve the tri-county area (Wayne, Oakland, & Macomb counties)
- Affiliated with the MSEF and the ISEF
- Two divisions: Junior (6th-8th grades) and Senior (9th-12th grades)
- Individual projects (all grades) and team projects (all grades)
- Public, private, parochial, charter, & home schools
- Thirteen project categories

Project Categories



- Behavioral & Social Sciences
- Biochemistry
- Botany
- Chemistry
- Computer Science
- Earth & Space Science
- Engineering

- Environmental Science
- Mathematics
- Medicine & Health
- Microbiology
- Physics
- Zoology
- Team

Three P's of Science Projects



- **Preparation**

- Library – do background research
- Choose topic
- Collect resources, equipment
- Design experiment

- **Performance**

- Carry out experiments
- Keep project log book
- Tabulate data
- Arrive at conclusions

- **Presentation**

- Prepare project report
- Prepare project display

Awards at SEFMD



Junior Division (6th-8th)

- Grand Award (top 8 students and top team)
 - - Medal, certificate
- 1st-3rd place (~ 20%)
 - - certificate
- Blue (Outstanding)
 - - certificate (~20%)
- Green (Excellent) and Red (Honorable Mention)
 - - certificate (rest)
- **In Addition - Professional Awards**
Competition for cash awards, trips, recognition, special events

Senior Division (9th-12th)

- Grand Award (top 6 students and top team)
 - - Medal, certificate
 - - Entered into State Science Fair
 - - May be sent to ISEF
 - - Scholarship winner (UDM, LTU, OU, Wayne)
 - - competes for Weizmann award
- 1st -2nd place (~ 10%)
 - - Medal, certificate
 - - Participates in State SF
- 3rd place (~ 10%)
 - - Medal, certificate
- Certificates (rest)

Schools with Grand Award winners (past four years)



- Brenda Scott Middle School
- Brewer Academy
- Clippert Center Middle School
- Dearborn Center for Math, Science & Technology
- Detroit Catholic Central HS
- Detroit Country Day Middle School
- Detroit Country Day Upper School
- Detroit School of Arts – West Langston
- Divine Child High School
- Douglass Academy for Young Men - Middle
- Dunckel (O.E.) Middle School
- Friends School of Detroit
- Great Oaks Academy
- Grosse Pointe North HS
- Grosse Pointe South HS
- Hally Magnet Middle School
- Huda School and Montessori
- Immaculate Conception Ukranian Catholic Academy
- International Academy
- International Academy – East Campus

- Ivan Ludington Magnet
- Kosciuszko Middle School
- Macomb Math & Science Tech Center
- Meads Mill Middle
- Mercy High School
- Novi Senior High School
- Orchard Lake Middle School
- Our Lady of Good Counsel Elementary
- Our Lady of LaSalette
- Plymouth High School
- Spain Middle School
- St. Michael Elementary-Livonia
- Stoney Creek High School
- Thurgood Marshall Elementary
- Troy High School
- Walled Lake Westem High School
- William Howard Taft Middle School

A few recent ISEF awards...



- 2013: Michael Shao (Detroit Country Day School) received a first place award (\$3,000) and best of category award (\$5,000) in Animal Science.
- 2007: Harrison Nguyen (Detroit Catholic Central H.S.) received a Drexel University Full Scholarship valued at \$120,000 and a New Mexico State University scholarship valued at \$90,000.
- 2007: Temple He (Troy H.S.) received the best of category award in Physics and the Seaborg SIYSS Award plus several professional awards (valued at \$27,000... and \$2,000 to his school).
- Would Michael, Harrison, and Temple say science fair projects are worth it??

YES!