

Science Fair Projects: More Science Fairs and Opportunities

Competitions for Middle School Students

Discovery Education 3M Young Scientist Challenge

<http://www.youngscientistchallenge.com/>

This national competition is open to 5th-8th graders. Students submit a 1-2 minute video addressing a problem and solution related to "the way we move, the way we keep ourselves healthy, or the way we make a difference". DYSC interprets these three areas quite broadly; see the website for "thought starters" that give a sense of the breadth of possible topics. If your science fair project relates to one of these areas, you can use it for DYSC. Judges will select "merit winners" from each state who receive prize packages. 10 finalists receive an all-expense-paid trip to the final competition, along with a \$1,000 cash award and a summer experience at 3M. The 1st place winner receives \$25,000 and a trip from Discovery Student Adventures.

Who can participate? 5th-8th graders

What are the awards? \$40,000+

When is the deadline? Check the website for 2012 information

How do I enter? Submit a 1-2 minute video and online application

3E Sustainable Future Challenge

<http://www.isweeep.org/3e-contest-mainmenu-101/3e-contest>

A national competition run by the Cosmos Foundation (who also runs ISWEEEP). Students in grades 6-8 can participate. Only individual projects are eligible. Students can enter projects dealing with energy, engineering, and the environment. Apply directly to 3E on the 3E website. The application includes a slide show presentation. 40 honorable mentions, 40 semifinalists (\$100 prize), and 10 finalists (\$500 prize) are. The 10 finalists receive an all-expense paid trip to Houston, Texas, to compete for the grand prize of \$2,000.

Who can participate? 6-8 graders

What are the awards? ~\$45,000

When is the deadline? February 24th 2012

How do I enter? Apply online

Broadcom Math, Applied Science, Technology, and Engineering for Rising Stars (MASTERS)

<http://www.societyforscience.org/masters>

A national competition administered by the Society for Science and the Public (the same people who run Intel ISEF and Intel STS). Students in grades 6-8 are eligible to participate. Students compete at SSP-affiliated science fairs (such as the Ritchey, Salt Lake, Central Utah, and Southern Utah Science and Engineering Fairs), and the top 10% of students are nominated to the Broadcom MASTERS Competition. Nominees then fill out an online application "explaining their science project and demonstrating their use of STEM principles - science, technology, engineering and math - in the development and presentation of their project.... The online application requires students to answer essay questions on their science fair project, provide a few examples of science and engineering in their everyday life, and complete brief career exploration section." 300 semifinalists and 30 finalists are selected from the pool of applicants. The 30 finalists receive an all-expense paid trip to Washington, D.C., where they compete for awards, including a top prize of \$25,000.

Who can participate? 6-8 graders

What are the awards? Top prize of \$25,000, numerous smaller awards

When is the deadline? 2012 deadline TBA.

How do I enter? Must be nominated by a SSP-affiliated fair

Competitions for Middle and High School Students

Young Naturalist Awards

<http://www.amnh.org/nationalcenter/youngnaturalistawards/index.html>

A national competition administered by the American Museum of Natural History. Students in grades 7-12 are eligible to participate. Only individual projects are allowed. Students plan and conduct a scientific investigation (in other words, a science fair project), and then write a narrative essay about their investigation. Essay length varies with grade level, but the entire report (essay, figures, tables, references, etc.) can be no longer than 20 pages. Projects in the categories of biology, ecology, Earth science, and astronomy are eligible, as long as they have a field work component. However, the YNA website says, "If you can relate an indoor experiment to an investigation in the natural world, then that is acceptable." A panel of judges reviews the essays and chooses 300 semifinalists (certificate), 36 finalists (\$50), and 12 winners (\$500-\$2,500 and a trip to New York City).

Who can participate? 7-12 graders

What are the awards? ~\$10,000

When is the deadline? March 9th 2012

How do I enter? Submit an application and essay

Competitions for High School Students

Intel Science Talent Search

<http://www.societyforscience.org/sts>

The "junior Nobel Prize", the Intel STS is a national competition for high school seniors administered by Society for Science and the Public (the same people who run Intel ISEF and Broadcom MASTERS). Only high school seniors are eligible to participate, and only individual projects are allowed. Students apply directly to the Intel STS—they are not nominated by a regional science fair. The Intel STS has no time limit on the duration of research. This is different from the Intel ISEF, and it means that you can report all of a multi-year project. The application includes standardized test scores, letters of recommendation, a report from your high school principal or counselor, transcript, essay questions, and a research paper about your project, which is patterned after reports in the peer-reviewed literature. Everything except the transcript is submitted online; the transcript must be mailed to SSP. Additional forms may be required if IRB approval is needed. Judges select 300 semifinalists and 40 finalists from the pool of applicants. The finalists travel to Washington, D.C. to participate in the Intel Science Talent Institute (STI), a week-long competition culminating in a black-tie gala where winners are announced. The 300 semifinalists receive \$1,000 plus \$1,000 to their schools. The 40 finalists receive the following: \$100,000 1st place, \$75,000 2nd place, \$50,000 3rd place, \$40,000 4th place, \$30,000 5th place, \$25,000 6th and 7th places, \$20,000 8th-10th places, \$7,500 for the remaining 30 finalists.

Who can participate? Individual 12th graders.

What are the awards? \$1.25 million

When is the deadline? November 16th at 8:00pm EST Transcripts and recommendations due November 1st.

How do I enter? Submit an online application.

Siemens Competition in Math, Science, and Technology

<http://siemens.collegeboard.org/>

The Siemens Competition, like Intel STS, is a highly prestigious national science research competition. It is administered by the College Board, the people who run the SAT and AP tests. Both individual and team projects are eligible. This is different from the Intel STS, which is only open to individuals. Individuals must be high school seniors, but teams of 2 or 3 do not need to include a senior. Behavioral and social science projects are not allowed. Students apply directly to the Siemens Competition. Like Intel STS, the core of this competition is a paper about your research project, patterned after articles in the peer-reviewed literature. Judges select 300 regional semifinalists, and 60 regional finalists (30 individuals and 30 teams). Semifinalists receive a nice awards package, and regional finalists receive \$1,000. The regional finalists prepare a display and give an oral presentation at one of six regional sessions, held at places like Caltech and MIT; regional winners receive \$3,000 and advance to the national competition, where prizes are as follows: 1st = \$100,000, 2nd = \$50,000, 3rd = \$40,000, 4th = \$30,000, 5th = \$20,000 and 6th = \$10,000 in both individual and team categories.

Who can participate? High school seniors or teams of 2-3 students in grades 9-12.

What are the awards? >\$1 million

When is the deadline? Monday, October 3, 2011 at 5 p.m. ET.

How do I enter? The application includes a mentor form, a supplemental form, a confirmation page, and an 18 page research report, and a CD. You must mail in these items.

Davidson Fellows Scholarships

<http://www.davidsongifted.org/fellows/>

The Davidson Fellows Scholarships are awarded to individual students age 18 or under in seven categories: mathematics, science, literature, music, technology, philosophy, and outside the box. Students apply directly to the Davidson Fellows Scholarship program. The application varies by category; the science category requires a research report, visual model, and video presentation. Awards include \$50,000, \$25,000 and \$10,000 scholarships. Projects involving human subjects or live animals (vertebrate or invertebrate) are not allowed. Students are expected to present college or graduate-level work—the kind of work expected for Intel ISEF, Intel STS, and the Siemens Competition. In fact, many Davidson Fellows win or have won awards at these other prestigious competitions.

Who can participate? Individuals who are 18 or younger as of October 4th, 2012.

What are the awards? ~\$600,000

When is the deadline? February 1st, 2012. Preliminary form due January 16th 2012.

How do I enter? Submit an online application in mathematics, science, literature, music, technology, philosophy, or outside the box categories.

Junior Science and Humanities Symposium

<http://www.utah.edu/futurestudents/ijshs/>

This national competition, sponsored by the US Armed Forces, is open to 9-12 graders. The nation is divided in 48 regions, and students compete at the regional level, with regional winners advancing to the national level. Utah is located in the Intermountain Region, and the Intermountain JSHS is held at the University of Utah. Students submit a written report to the regional JSHS. Judges make a preliminary cut, and the selected students give an oral or poster presentation at the regional symposium. Winners from the regional symposium

advance to the national symposium, where they compete for, scholarships and the chance to advance to an international symposium in London. The first place regional winner receives \$2,000 and a 4-year in-state tuition waver to the University of Utah. The second place regional winner receives \$1,500 and the third place regional winner gets \$1,000. The first and second place regional winners advance to the national competition, and the 3-5th place regional winners attend the national symposium as observers. At the national symposium, seven 1st, 2nd, and 3rd place awards are given. 1st place = \$12,000 scholarship, 2nd place = \$8,000 scholarship, 3rd place = \$4,000 scholarship.

Who can participate? 9-12 graders. Group projects are "sort of" allowed (see website for details).

What are the awards? ~\$500,000

When is the deadline? Check the website for 2012 information.

How do I enter? Check the website for 2012 information.

International Sustainable World Energy, Engineering, Environmental Project Olympiad

<http://www.isweeep.org/>

ISWEEEP involves students from 70 countries. 9-12 graders compete as individuals or teams of 2 to 3 students. Projects must be related to energy, engineering, or the environment; see the ISWEEEP website for more details about what types of projects are eligible. Students enter ISWEEEP by either (1) being nominated by an ISWEEEP-affiliated fair, or (2) applying directly to ISWEEEP after competing in an ISWEEEP-affiliated fair. Finalists nominated by affiliated fairs automatically qualify for the competition; students submitting applying on their own are vetted and only a few of those students become finalists. The actual ISWEEEP competition is held in May in Houston, Texas.

Who can participate? 9-12 graders (individuals or teams of 2 or 3)

What are the awards? \$350,000

When is the deadline? March 2nd 2012

How do I enter? Compete at an affiliated regional, state, or national fair and (1) be nominated or (2) apply directly after competing at regional, state, or national fair

Google Science Fair

<http://www.google.com/events/sciencefair/>

Google's Global Science Fair started in 2011. Information about 2012 is sparse, but Google will be holding a 2012 fair. In 2011, students submitted a 2 minute video or slide show presentation. Judges selected 60 semifinalists and 15 finalists. The finalists traveled to Google headquarters, where they were judged by a different panel of judges, and competed for top prizes. In 2011, the grand prize was \$50,000, an expedition with National Geographic, a "once in a lifetime experience", and prizes from Lego and Scientific American. The other two finalist winners received \$25,000, along with a "once in a lifetime experience, and prizes from Lego and Scientific American. The 15 finalists also received prize packages that included things like laptops.

Who can participate? Students aged 13-18 (individuals and team projects)

What are the awards? See website for 2012 information.

When is the deadline? See website for 2012 information.

How do I enter? See website for 2012 information.

BioGENEius Challenge

<http://biotechinstitute.org/node/1438>

An international competition for 9-12 graders with biotechnology-related projects. For the purposes of the competition, "Biotechnology is the use of the knowledge of biological systems to produce goods and services." Utah does not have a local BioGENEius Challenge, so students should apply to the At Large BioGENEius Challenge. 15 students from the At Large BioGENEius Competition will be selected for the national BioGENEius Challenge. National winners can advance to the International BioGENEius Competition, which will be held in Boston. 1st place = \$7,500, 2nd place = \$5,000, 3rd place = \$2,500, 4th = \$1,000. Remaining finalists receive \$500 Honorable Mention.

Who can participate? 9-12 graders. Individual projects only.

What are the awards? > \$20,000

When is the deadline? April 15th, 2012

How do I enter? Apply online. Check the website in October for more details.

Summer Research Programs for High School Students

Research Science Institute (RSI)

<http://www.cee.org/programs/rsi>

The six week longer Research Science Institute is held each summer at MIT and is open to students during the summer between their junior and senior year of high school. If you want to seriously prepare for a top science competition, apply to RSI. It will give you the skills you need to be a successful high school scientist, and it will serve you well into college and beyond. Most RSI participants win prizes at Intel STS, Intel ISEF, the Siemens Competition, and other prestigious competitions. (Conversely, participating in science fairs bolsters your RSI application.) The RSI application includes essay questions, letters of recommendation, a high school transcript, and PSAT/SAT/ACT/AP scores. The program is free of charge to students except for the cost of getting to and from MIT. This is a fantastic program that looks great on a college application (or Intel STS application).

Who can participate? High school juniors apply for the summer between their junior and senior years.

What are the awards? Prestige and preparation for a killer research project.

When is the deadline? Check the website for 2012 information.

How do I apply? Complete an application; check the website for details.

Dr. Bessie F. Lawrence International Summer Science Institute

http://www.weizmann.ac.il/zemed/english/activities.php?page_name=activities&cat=0&act=large&id=73

<http://www.weizmann-usa.org/about/summer-programs>

This research experience for those entering their freshman year of college brings together talented students from across the globe. Students work with researchers at the Weizmann Institute of Science in Israel to complete a research project. The fourth week is spent exploring the Dead Sea and surrounding environs. The program includes trips to other parts of Israel, such as Jerusalem. American students receive a full scholarship.

Who can participate? High school seniors apply for the summer before their freshman year of college.

What are the awards? Prestige and preparation for undergraduate research. Resume builder.

When is the deadline? Check the website for 2012 information.

How do I apply? Complete an application; check the website for details.