

# Fair Categories

## Regular Fair Categories

Projects are classified as either Life Sciences or Physical Sciences and further divided by grade and team.

Grade 7	Life Sciences	Physical Sciences
Grade 8	Life Sciences	Physical Sciences
Grade 7&8 Team	Life Sciences	Physical Sciences
Grade 9-12	Life Sciences	Physical Sciences
Grades 9-12 Team	Life Sciences	Physical Sciences

Life science projects include behavioral and social sciences, biochemistry, botany, environmental sciences, medicine and health, microbiology, and zoology. Physical science projects encompass chemistry, computer science, earth and space sciences, engineering, mathematics and physics. Team projects are limited to three students. *Note.* All awards subject to change depending on the availability of grant sponsorship.

## Major Category Awards

**Biotechnology Awards** Biotechnology projects include those that utilize biological systems or living organisms and include areas such as medical, industrial, environmental and marine biotechnology. The top high school winning project receives an invitation to compete at the International Science and Engineering Fair (ISEF).

**Engineering Awards** For projects in the disciplines of aeronautical, electrical, mechanical, electrooptical, and optical engineering. Criteria include the demonstration of good engineering practices in the development of working hardware. The top high school winning project receives an invitation to compete at the ISEF.

**Life Sciences Awards** The two top high school winning projects, individual or team, receive all expense-paid trips to compete at the ISEF. Cash awards, trophies, plaques, and medallions for top winners and recognition plaques for finalists.

**Physical Sciences Awards** The two top high school winning projects, individual or team, receive all expense-paid trips to compete at the ISEF. Cash awards, trophies, plaques, and medallions for top winners and recognition plaques for finalists.

**Urban School Challenge** Grade 7-12 students from public schools located in Connecticut Alliance School District towns will compete against one another for major prizes. The top high school project, either individual or team, will win an opportunity to compete in the ISEF. The top 8th grade project wins an opportunity to compete at the GENIUS Olympiad, and the highest scoring 7th grade project will attend Project Oceanology's week-long Ocean Camp in Groton.

## Special Category Awards

Projects at the fair are considered for awards in multiple categories. Projects are selected by special judging panels. Consideration for these awards is separate from the Fair judging for Life and Physical Sciences.

**Alternative/Renewable Energy Awards** Cash awards, trophies and medallions for projects that best promote an educated energy conscious society. Projects should explore and present resources for a sustainable energy future.

**Applied Technology Awards** For projects applying technology to demonstrate a practical solution to a stated problem or by creating a functionally interesting use of technology.

**Computational Sciences & Bioinformatics** For projects that leverage big data or mathematical modeling to explain biological phenomena. Projects include the development and application of data-analytical and theoretical methods, mathematical modeling and computational simulation techniques to the study of biological, behavior, and social systems.

**Computer Science Awards** For projects which deal with computer architecture or software development directed towards better computers and software.

**Environmental Science Awards** For projects in environmental science and observational behavioral studies of animals in the environment.

**Future Sustainability Awards** For energy, engineering, and environmental projects addressing future sustainability of our planet. Projects will be considered that aim to find practical solutions to our world's sustainability by investigating specific ways that individuals and communities can use behavior change, efficiency enhancement technologies, and energy business/policies to maintain global sustainability.

**Mathematics Awards** For theoretical and analytical mathematics research. Projects may include developing or using models that enable conclusions, identify correlations and/or predictions using data analysis, probability, statistics, filtering and trending techniques, designs and tools. Theoretical projects include thought experiments, proof of existing theories, development/proof of new theories, formation of concepts, or design of a mathematical model.

**Technical High School Awards** For projects submitted for students who attend a technical high school. The top project will win an opportunity to compete at GENIUS Olympiad..

## Women in Science and Engineering Awards

Recognizes young women in grades 7&8 and 9 to 12 for their outstanding research achievements in Life and Physical Sciences.

### Scholarships

Scholarships are presented by:

**Quinnipiac University**  
**University of Connecticut**  
**University of Hartford**  
**University of New Haven**

### Special Awards

In addition to the category awards, more than 200 special awards presented by 100 professional societies and businesses are awarded.

### Major Division Category Codes and Project Numbers

Project Number	Major Category	CSEF Code
1001-1999	Life Team	LT
2001-2499	Life 7	L7
2501-2999	Life 8	L8
3001-3499	Life Senior (9-12)	LS
3501-3999	Life Sr Team	LST
4001-4999	Physical Team	PT
5001-5999	Physical 7	P7
5501-5999	Physical 8	P8
6001-6499	Physical Senior (9-12)	PS
6501-6999	Physical Senior Team	PST