

2023 Greater San Diego Science & Engineering Fair

Professional Society Awards Criteria

***NOTE: Each Professional Society/ISEF Affiliate sets their own criteria and awards
The information below is subject to change without notice***

Name of Professional Society or ISEF Affiliate	Type of Award	Criteria
American Psychological Association	ISEF Affiliate	Outstanding research in psychological science under the category of behavioral and social sciences or any category related to psychology (e.g., animal sciences, biomedical and health sciences, translational medical science)
American Society of Civil Engineers	Professional Society	Projects that have something to do with civil engineering. This includes building materials, structures, water quality, treatment, environmental, safety, anything at all that might be applicable to the field of civil engineering
American Society of Mechanical Engineers, San Diego Section	Professional Society	ASME is interested in the following projects: Mechanical Engineering Projects, Electro-Mechanical Projects, machines with a mechanical advantage, HVAC related projects, Heat Transfer/Gain, Losses, Conservation of Energy, Thermo-dynamics, Energy Generation, Thermal Insulation Materials, etc
American Society of Non Destructive Testing (San Diego Section)	Professional Society	Looking for Students whom projects a related to Non-Destructive Testing
Armed Forces Communications and Electronics Association	Professional Society	We only look at the Math, Computer Science, Engineering, and Physics categories. We pay special attention to projects dealing with electronics, robotics, encryption, mathematics and communications. (This can be broadly interpreted)
Association for Women Geoscientists	ISEF Affiliate	Female students whose projects exemplify high standards of innovativeness and scientific excellence in the geosciences. Special consideration is given to projects that increase the public awareness of the geosciences, illustrate the interdisciplinary nature of the geosciences, or promote the sensitivity to the earth as a global system
Association for Women in Science San Diego	Professional Society	Student must identify as female. Projects will be judged for originality, hypothesis/question, scientific method, and presentation
BD "Advancing the World of Health" Award	Professional Society	The projects selected for awards will go to the projects that best exemplify BD's motto: Advancing the World of Health
Broadcom "Coding with Commitment" Award	Professional Society	
Building Industry Association Cares	Professional Society	We review projects with a construction, real estate or environmental theme. The criteria we use to evaluate projects includes: originality, background research, thoughtfulness of research design, thoroughness of research, validity of research, extrapolation of findings to the real world, effort, presentation including binder, poster board, and oral, and overall interest in the topic and Science Fair
California Environmental Health Association Southwest Chapter and County of San Diego DEHQ	Professional Society	We are interested in projects related to the field of Environmental Health including but not limited to: Food Safety, Hazardous Materials, Land Use, Liquid and Solid Waste, Vector Control, Swimming Pool and Housing safety, and Air Quality. We also consider ingenuity and presentation
California School Nurse Organization - San Diego/Imperial (CSNO- SDI)	Professional Society	We look for projects on health related subjects (such as biology, physical body processes, chemistry, exercise, nutrition and mental health). Projects are rated, based on presentation, the testable question, background research, hypothesis, clearly defined variables, appropriate methodology, analysis and conclusion
Collins Aerospace's Fred H. Rohr Science Award	Professional Society	Senior Division only - Engineering, Math, Science relating to Mech/Aersopace Systems. Looking for an outstanding science or engineering related project that demonstrate mastery of subject material, contain a novel idea, clearly presented and answered panel questions, and have alignment to our business
Department of Defense (DoD) STEM Leadership Prize	ISEF Affiliate	Middle School student or team that demonstrates excellence in STEM, as well as problem-solving skills and determination to overcome challenges throughout the research project
DRS Daylight Solutions Award for Optical Physics and Engineering	Professional Society	This award recognizes innovative research and/or engineering projects that include optics and photonics as a key element. Projects can be focused on improving understanding of light and optical physics, and/or the novel application of optical technologies to solve real-world problems

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DRS Daylight Solutions Project Assistance Award for Optical Physics and Engineering General Atomics Sciences Education Foundation	Professional Society	
	Professional Society	Awards are presented in the junior and senior divisions for the best project involving advanced materials, or the innovative use of conventional materials. The project can involve the development of new materials, the study of material properties, or the application of materials in a new or innovative way in the construction of a device or structure. An honorable mention award is also presented in each division
Lemelson Early Inventor Prize	ISEF Affiliate	Top inventor in Grades 6-8. The award winner will: (i) demonstrate problem-solving by identifying a critical problem, (ii) apply empathy and STEM knowledge to find a practical solution, (iii) display entrepreneurial thinking by developing a tangible invention, and (iv) Ideally, exemplify environmentally-responsible thinking in their research and creation of the product
Marine Technology Society	Professional Society	Our award is for the best marine science project. This includes everything from electronics to coatings to fluid dynamics, energy conservation and maritime technology. It must have interest to the maritime community. We look for completeness, knowledge of the project, and presentation of the material
NASA EARTH System Science Award	ISEF Affiliate	The NASA Earth System Science Award should be given to the project that best demonstrates insight into Earth's interconnected systems. The project should incorporate studies of the different components of Earth systems, their interactions and their evolution over time. It should include cause-effect relationships based on evidence that focuses on the interrelatedness of the various components of Earth systems and demonstrate a clear understanding of how those relationships affect Earth as a system
National Geographic Award	ISEF Affiliate	For youth in grades 9-12 or equivalent. Awarded to a high school student who is seeking solutions to the Earth's most pressing challenges, in particular, around oceans, land, wildlife, human history & cultures, and human ingenuity. The award winning project will: (i) focus on issues of oceans, land, wildlife, human history & cultures, and human ingenuity, (ii) bring geographic concepts and skills to life in new, non-traditional ways, (iii) target underrepresented communities, (iv) have potential for scale, and (v) bring innovation to the space and place
National Oceanic and Atmospheric Administration "Taking the Pulse of the Planet" Award	ISEF Affiliate	The award will honor one project (from middle or high school) whose research emphasizes NOAA's mission of Science, Service, and Stewardship: "To understand and predict changes in climate, weather, oceans, and coasts, To share that knowledge and information with others, and To conserve and manage coastal and marine ecosystems and resources." NOAA is a trusted source of accurate and objective scientific information in four particular areas of national and global importance: (i) Coastal, marine, and Great Lakes ecosystems: Ensure the sustainable use of resources and balance competing uses of coastal and marine ecosystems, recognizing both their human and natural components. (ii) Climate: Understand changes in climate, including the El Niño phenomenon, to ensure that we can plan and respond properly. (iii) Weather and water: Provide data and forecasts for weather and water cycle events, including storms, droughts, and floods. (iv) Commerce and transportation: Provide weather, climate, and ecosystem information to make sure individual and commercial transportation is safe, efficient, and environmentally sound. Projects focused on topics related to the four areas described above will be judged for this award
Office of Naval Research (U.S. Navy/U.S. Marine Corps)	ISEF Affiliate	Students must be permanent residents or citizens of the USA. Projects with potential US Navy applications are strongly encouraged. NO group/team projects selected for awards allowed
Professional Engineers in California Government Award	Professional Society	Awards are determined by a consensus of the judging team, from science and engineering related fields, based on innovation, practicability and need
Regeneron Biomedical Science Award	ISEF Affiliate	All 11th graders who competed as individuals are eligible to apply for further competition

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Ricoh USA, Inc.	ISEF Affiliate	Develop new innovations that support the company's goal to spread environmentally and socially responsible business practices
San Diego Astronomy Association	Professional Society	Relevance to astronomy, astrophysics, or related/supporting technologies; merit of the project; student age appropriate understanding of the subject; creativity
San Diego Chapter, American Society of Materials International	Professional Society	We are looking for an understanding of various materials, how to measure their properties and/or uses in applications to solve engineering or scientific needs. We judge projects based on: (i) verbal presentation, (ii) visuals, (iii) testing approach. and (iv) novelty
San Diego County Dental Foundation	Professional Society	Projects should have a connection to oral health
San Diego County Veterinary Medical Association	Professional Society	The objective of the SDCVMA is to promote the science and art of veterinary medicine, including its relationship to public health and animal welfare; to nurture a collegial spirit among its members; to advocate for the rights and privileges of veterinarians, particularly those of San Diego and Imperial Counties; and to elevate the standards of the profession
San Diego Psychological Association	Professional Society	In general, we look for projects reflecting good scientific method, originality, student ownership, and understanding of conceptual underpinnings and application possibilities. We ask students to tell us about their projects and not to present any rehearsed statements
San Diego Section, American Chemical Society	Professional Society	The award is based on the aggregate score in the following: (i) Creativity of approach (equipment, experimental design); (ii) Data quality (sources of error, areas for improvement); (iii) Understanding of the science by the student, validity of conclusions; and (iv) Clarity of exhibit
Scripps Research Young Scientist Award	Professional Society	SRYSA will award projects that are relevant to the life sciences and medicine. We evaluate the potential ground breaking innovations and ideas that the students invented, as well as their autonomy during the project, their overall understanding of the field they worked in, their career prospects and last but not least their attitude and enthusiasm towards science, education and outreach
Society for In Vitro Biology	ISEF Affiliate	Grade 11 only; in the area of plant or animal in vitro biology or tissue culture
Society for Women Engineers - San Diego County Section	Professional Society	Our awards will go to projects which are determined outstanding in the area of applied sciences and engineering and have the potential to encourage girls to pursue an engineering career
Stockholm Junior Water Prize	ISEF Affiliate	Projects in Grades 9-12 (individual or teams). Winners will have conducted water-related science projects and have reached the age of 15 by August 1st of the current competition year. Projects should be aimed at enhancing the quality of life through improvement of water quality, water resource management, or water and wastewater treatment. The projects may explore water issues on a local, regional, national, or global level using a research-oriented approach
Taiwan Award	Professional Society	
The Society of American Military Engineers - San Diego Post	Professional Society	We are usually interested in the originality and applicability of the project
Thermo Fisher Award	Professional Society	
Thermo Fisher Scientific Junior Innovators Challenge	ISEF Affiliate	Top-ranked middle school projects; invitation to further competition
Torrey Pines Docent Society	Professional Society	A quality science or engineering project (especially new research or development) enhancing understanding or ability regarding nature, conservation, preservation, or interpretation in the region of Torrey Pines State Natural Reserve. Awardees demonstrate excellent written and verbal communication skills
U. S. Air Force	ISEF Affiliate	
U.S. Agency for International Development (USAID)	ISEF Affiliate	Recognizes an exceptional project that has the potential to help address a salient international development challenge

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U.S. Metric Association	ISEF Affiliate	Best use of metric units
Yale Science and Engineering Association	ISEF Affiliate	11th Grade only. Most outstanding 11th grade project in the areas of Science, Technology, Engineering and Mathematics