

Category	Place	Name	City	School	Project Title
Physical Sciences	First Grand/Best in Show	Mai-Anh Vu	Austin	McNeil High School	Determining the Quantum Limit of Palladium and Gold Nanometallic Supercatalyst by Kinetic Method
Physical Sciences	Second Grand	Rohan Thakur	Plano	Plano East Senior High School	Using Resonance Frequency to Predict and Prevent Structural Failure
Life Sciences	First Grand	Sydney Hutton	Austin	Bowie High School	The Effects of Organic Labeling on Taste Perception
Life Sciences	Second Grand	Tristan Lim	Bellaire	Michael E. DeBakey High School for Health Professions	Mixing Drinks With Medications
Animal Sciences	1	Sarah Bushong	Cedar Park	Vista Ridge High School	Danger in the Water: The Invasive Progression of the Malaysian Trumpet Snail (<i>Melaniodes tuberculata</i>) From the Comal River and its Trematode Parasites
Animal Sciences	2	Anjali Chacko	Allen	Clark High School	Environmental Dyesaster: The Effects of Hair-Dye on the Environment
Behavioral and Social Sciences	1	Nupur Shambharkar	San Antonio	Winston Churchill High School	Mysteries of the Mind: Effects of Binaural Beats on Cognition and Concentration Levels
	2	Grant Kjeldsen	Round Rock	Vista Ridge High School	The Effects of Cortisol on Behavioral Patterns: Using Cambaridae <i>Cambarus</i> as a Model for Human Behavior
		Spencer Bowdon	Cedar Park	Vista Ridge High School	The Effects of Cortisol on Behavioral Patterns: Using Cambaridae <i>Cambarus</i> as a Model for Human Behavior
Biochemistry	1	Alan Flores	Mercedes	Weslaco East High School	Inhibition of Xanthine Oxidase Activity by Xanthine Analogue Caffeine

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	2	Linda Ren	Waco	Midway High School	Determination of Hydrocarbon Concentrations in Solution
Cellular and Molecular Biology	1	Lisa Michaels	Plano	Shepton High School	MITOCHONDRIA & ALZHEIMER'S: Modulating the GCLc Gene to Mitigate Redox Stress and ETC Complex Dysfunction
	2	Victoria Xie	Houston	Michael E. DeBakey High School for Health Professions	Betulinic Acid Targets Cancer-Driving Gene: FoxM1
Chemistry	1	Kevin Nguyen	Plano	Plano East Senior High School	The Development of Novel Sutures that Store and Deliver Nitric Oxide for Wound Healing
		Punya Chittajallu	Plano	Plano East Senior High School	The Development of Novel Sutures that Store and Deliver Nitric Oxide for Wound Healing
	2	Justin Zhong	Plano	Jasper High School	Protected by Porosity II: Nanostructured Aerogels for Multifunctional Applications: Significant Acoustic Dampening and Mechanical Energy Absorption
		Thomas Lu	Plano	Jasper High School	Protected by Porosity II: Nanostructured Aerogels for Multifunctional Applications: Significant Acoustic Dampening and Mechanical Energy Absorption
		Kevin Lin	Plano	Jasper High School	Protected by Porosity II: Nanostructured Aerogels for Multifunctional Applications: Significant Acoustic Dampening and Mechanical Energy Absorption
Computer Science	1	Will Yager	San Antonio	Keystone	High-Speed Cryptography: FPGAs Versus CPUs
	2	Joseph Langas	San Antonio	BSA Troop 1988	A Comparison of Metaheuristic Techniques for Optimizing Gamma Knife Inverse Treatment Planning

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Earth Science	1	Meghan Brinton	Houston	Clear Lake High School	Return of the Jetty
	2	Carlos Mejia	EL PASO	Americas High School	Accurately Measuring Earth's Vibrations
		Guillermo Lopez	EL PASO	Americas High School	Accurately Measuring Earth's Vibrations
		Alberto Nunez	EL PASO	Americas High School	Accurately Measuring Earth's Vibrations
Energy and Transportation	1	Ankita Ghoshal	Austin	Westlake High School	See What's Hot: A Sustainable Off-Grid Power Generator
	2	Mandeep Patel	Houston	Harmony School of Advancement	Smart Panel
Engineering: Electrical/Mechanical	1	Shayan Mohanty	Plano	Plano Senior High School	Don't Fear - It's Secure II: Integration of NFC Devices into Secured RFID Networks
	2	Paul Huron IV	San Antonio	Harmony Science Academy-SA	Weapon System Visualization & Signal Analysis ID Program For Converting Audio Signals and Photo Images Using Fourier Transform and Image Processing Algorithms Year II 2011-12
Engineering: Materials/Bioengineering	1	Renee Beach	Plano	Plano Senior High School	Fabrication of Hollow Polymer Nanofiber Membranes via Co-axial Electrospinning for Water Purification
		Aileen Huang	Plano	Plano Senior High School	Fabrication of Hollow Polymer Nanofiber Membranes via Co-axial Electrospinning for Water Purification
	2	Yashvanth Poondla	Frisco	Texas Academy of Mathematics and Sciences	Composites of Chemically Modified Fibers
		Larry Xiao	Plano	Texas Academy of Mathematics and Sciences	Composites of Chemically Modified Fibers

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Environmental Management	1	Morgan Sinko	San Antonio	John Jay Science & Engineering Academy	Pop Goes the Diesel: A Linoleic Acid/R. rhodochrous Mixture as a Bioremediation Agent of Diesel Contaminants in Saltwater and Freshwater Environments
	2	Nick Treuil	Houston	Clear Brook High School	Plastic Recycling: Sink or Swim?
Environmental Sciences/Analysis	1	Thabit Pulak	Richardson	Richardson High School	Home Based Arsenic Bio-sand Water Using Nanotechnology Filter
	2	Andrew Yang	San Antonio	Northside Health Careers High School	A Method for Testing Which Vehicles Emit the Corrosive Pollutants That Cause More Accelerated Degradation to Metallic Engineering Structures
Mathematical Sciences	1	Anita Rao	Pearland	Dawson High School	Lorenz & Modular Flows are Knot Similar
	2	Ryan Kwon	Plano	Plano East Senior High School	Idealized Loops for the Collatz Conjecture
Medicine and Health Sciences	1	Phillip Yu	Plano	Shepton High School	Targeting Progranulin Signaling for Dementia Therapy
		Kimberley Yu	Plano	Plano West Senior High School	Targeting Progranulin Signaling for Dementia Therapy
	2	Ari Gao	Plano	Texas Academy of Mathematics and Science	Somatostatin Receptors on Primary Cilia Protect Brain Cells from Excitotoxic Injury During Seizures
Microbiology	1	Mashad Arora	Brownsville	Science Academy of South Texas	Fungicides to Save Frogs

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	2	Jordan Putnam	Lubbock	Lubbock-Cooper High School	Comparison of The Transformation Efficiency of Common Strains vs. Environmental Wild Strains of E. coli Using Heat Shock and Electroporation
Physics and Astronomy	1	Aly Ashraf	Coppell	Coppell High School	The Aerodynamics of Ping Pong: The Magnus Effect
	2	Piper Reid	Austin	Dripping Springs High School	Photometric and Spectroscopic Analysis for the Determination of Physical Parameters of an Eclipsing Binary Star System
Plant Sciences	1	Wenxi Sheryl Li	Plano	Plano Senior High School	The Hydrogen Factory 2
	2	Michael Mann	Austin	Westwood High School	Interactions Between Piriformospora indica and Glomus Intraradices on Maize