

## HISEF Award Winners

Junior Division (7th - 8th Grade)	8th Grade	Chemistry	2nd Place	Andersen Junior High School	Vidya Balasubramania m	Canyon Hutchinson	The Effects of Ocean Acidification on Brine Shrimp
Senior Division (9th - 12th Grade)	10th Grade	Behavioral and Social Sciences	1st Place	Arizona College Prep - Erie Campus	Cristi Sims	Sebastian Javadpoor Tej Patel Sophia Sun	The Effect of the News Source on Number of "Loaded Words"
Junior Division (7th - 8th Grade)	8th Grade	Computer Science	1st Place	Arizona College Prep - Erie Campus	Charles Kidder	Lucas Conklin Ryan Harding	The Relationship of RAM Allocation to CPU Usage
Senior Division (9th - 12th Grade)	9th Grade	Engineering Mechanics	1st Place	Arizona College Prep - Erie Campus	Rachna Nath	Jacy Fuller	The Effect of Type of Magnet Used in a Magnetic Levitation Cart on the Time Taken to Go Down a Slope
Junior Division (7th - 8th Grade)	8th Grade	Medicine & Health Sciences	1st Place	Arizona College Prep - Erie Campus	Charles Kidder	Mihira Karnik	The Effect of Varying Times Broccoli is Steamed on the Cellulose Breakdown, Enzyme Activity, and Nutritional Value of the Broccoli
Junior Division (7th - 8th Grade)	8th Grade	Physics & Astronomy	1st Place	Arizona College Prep - Erie Campus	Charles Kidder	Pooja Athmanathan	Measuring the Velocity of Sound Using a Resonance Column and a Tuning Fork
Senior Division (9th - 12th Grade)	9th Grade	Plant Sciences	1st Place	Arizona College Prep - Erie Campus	Rachna Nath	Nevan Hanford	The Effect of Quantity of Plants Performing Photosynthesis on the Temperature Change in the Environment

Senior Division (9th - 12th Grade)	11th Grade	Robotics and Intelligent Machines	1st Place	Arizona College Prep - Erie Campus	Cristi Sims	Kazushi Iwamoto	Deep Learning Technology Based Real Time Visual Driving Assistance
Senior Division (9th - 12th Grade)	9th Grade	Animal Sciences	2nd Place	Arizona College Prep - Erie Campus	Rachna Nath	Chloe Tognacci	The Effect of Temperature on the Number of Artemia Eggs Hatched
Senior Division (9th - 12th Grade)	9th Grade	Biochemistry	2nd Place	Arizona College Prep - Erie Campus	Cristi Sims	Ryan Newsom	The Effect of Environmental Humidity on Honey Mass
Senior Division (9th - 12th Grade)	10th Grade	Chemistry	2nd Place	Arizona College Prep - Erie Campus	Cristi Sims	Kyrene Patarakun Tamuyen Truong	The Effect of Different Types of Salt on the Amount of Electrolytes
Senior Division (9th - 12th Grade)	9th Grade	Embedded Systems	2nd Place	Arizona College Prep - Erie Campus	Rachna Nath	Omina Nematova	The Effect of the Angle of a Parabolic Reflector on the Signal strength of a Wireless Router
Senior Division (9th - 12th Grade)	9th Grade	Energy: Physical	2nd Place	Arizona College Prep - Erie Campus	Rachna Nath	Annelise Velarde	The Effect of the Height of Chimney on the Amount of Airflow out of a Heated Building
Senior Division (9th - 12th Grade)	10th Grade	Environmental Engineering	2nd Place	Arizona College Prep - Erie Campus	Cristi Sims	Bridge Bach Ivy McNeil	The Effect of Different Plant Species on Retention Value within Different Soils with Concerns to Water Consumption and Cost
Junior Division (7th - 8th Grade)	8th Grade	Animal Sciences	3rd Place	Arizona College Prep - Erie Campus	Charles Kidder	Diya Nath	The Effect of Different Diabetes Herbal Remedies on the

							Body Length of <i>C. elegans</i>
Senior Division (9th - 12th Grade)	9th Grade	Biochemistry	3rd Place	Arizona College Prep - Erie Campus	Cristi Sims	Tamara Grujicic	The Effect of the Amount of Sugar in Ginger Beer on the CO <sub>2</sub> Pressure
Senior Division (9th - 12th Grade)	10th Grade	Cellular and Molecular Biology	3rd Place	Arizona College Prep - Erie Campus	Cristi Sims	Kristin Myer Yuna Choi	The Effect of a Single Mutation in the F8 or F9 Gene on Protein Function and the Corresponding Development of Hemophilia
Junior Division (7th - 8th Grade)	8th Grade	Chemistry	3rd Place	Arizona College Prep - Erie Campus	Charles Kidder	Jacob Kaufman-Warner Deangelo Brasen	The Effect of the pH of Water on the Volume of Yeast Foam
Senior Division (9th - 12th Grade)	9th Grade	Energy: Chemical	3rd Place	Arizona College Prep - Erie Campus	Cristi Sims	Waldo King	The Effect of Amount of Salt and Temperature in Solution on its Conductivity
Senior Division (9th - 12th Grade)	9th Grade	Energy: Physical	3rd Place	Arizona College Prep - Erie Campus	Rachna Nath	Robert L. Glanville	The Effect of Dirt Concentration on Solar Panel Efficiency
Senior Division (9th - 12th Grade)	10th Grade	Mathematics	3rd Place	Arizona College Prep - Erie Campus	Cristi Sims	Andrea Linder	The Effect of Medium of Shuffling on Quality of Randomness Observed
Senior Division (9th - 12th Grade)	9th Grade	Animal Sciences	Honorable Mention	Arizona College Prep - Erie Campus	Cristi Sims	Izaan De Bruyn	The Effect of Lemon Oil on the Number of Crickets in an Area
Senior Division (9th - 12th Grade)	9th Grade	Biomedical and Health	Honorable Mention	Arizona College Prep - Erie Campus	Rachna Nath	Sohani Sandhu	The Effect of Different Fruit Peels in Bio-plastics on the Longevity of the Bio-plastic

Senior Division (9th - 12th Grade)	9th Grade	Embedded Systems	Honorable Mention	Arizona College Prep - Erie Campus	Cristi Sims	Yashraj Singh	The Effect of Heat on a Diode's Current
Senior Division (9th - 12th Grade)	9th Grade	Energy: Physical	Honorable Mention	Arizona College Prep - Erie Campus	Cristi Sims	Yibo Chen	The Effect of Cooling on Peltier Module Efficiency
Junior Division (7th - 8th Grade)	8th Grade	Engineering	Honorable Mention	Arizona College Prep - Erie Campus	Charles Kidder	Nealin Banerjee	The Cost and Effectiveness of Various Sensors for a System to Prevent Drawers Smashing Fingers
Senior Division (9th - 12th Grade)	9th Grade	Systems Software	Honorable Mention	Arizona College Prep - Erie Campus	Rachna Nath	Yaniv Briker	The Effect of Type of Sensor on the Time Taken to Detect and Stop a Water Leakage
Junior Division (7th - 8th Grade)	8th Grade	Physics & Astronomy	Northrop Grumman Award	Arizona College Prep - Erie Campus	Charles Kidder	Pooja Athmanathan	Measuring the Velocity of Sound Using a Resonance Column and a Tuning Fork
Senior Division (9th - 12th Grade)	10th Grade	Environmental Engineering	Water Wise Award	Arizona College Prep - Erie Campus	Cristi Sims	Bridge Bach Ivy McNeil	The Effect of Different Plant Species on Retention Value within Different Soils with Concerns to Water Consumption and Cost
Junior Division (7th - 8th Grade)	7th Grade	Animal Sciences	1st Place	Arizona College Prep - Oakland Campus	Michelle Daly	Annabelle Williams	The Effect of Different Types of Chicken Feed on the Weight of a Chicken
Junior Division (7th - 8th Grade)	8th Grade	Animal Sciences	1st Place	Arizona College Prep - Oakland Campus	Kim Meyer	Niharika Abbaraju	Lethal Light???
Junior Division (7th - 8th Grade)	7th Grade	Behavioral & Social Sciences	1st Place	Arizona College Prep - Oakland Campus	Michelle Daly	Dawn Shim	The Effect of Nonverbal Bias of Newscaster

							When Discussing Candidate on the Voting Preference of the Viewer
Junior Division (7th - 8th Grade)	8th Grade	Behavioral & Social Sciences	1st Place	Arizona College Prep - Oakland Campus	Kim Meyer	Avery Bird	The Effect of Sound on the Accuracy of Test Answers and the Completion Time of Tests
Elementary Division (5th - 6th Grade)	6th Grade	Cellular & Molecular Biology	1st Place	Arizona College Prep - Oakland Campus	Carlie Moss	Maansi Bodla	Waterlogged! The Effect of Wood Type on Water Resistance
Junior Division (7th - 8th Grade)	7th Grade	Cellular & Molecular Biology	1st Place	Arizona College Prep - Oakland Campus	Michelle Daly	Sandro Lynch	The Effect of Various Cleaning Methods on the Presence and Quantity of Microorganisms
Junior Division (7th - 8th Grade)	8th Grade	Cellular & Molecular Biology	1st Place	Arizona College Prep - Oakland Campus	Kim Meyer	Eliana Rutka	From Slimy Composts to Natural Energy: Biogas
Elementary Division (5th - 6th Grade)	6th Grade	Chemistry	1st Place	Arizona College Prep - Oakland Campus	Carlie Moss	Priyanka Chudasama	The Effect of the Type of Enzymes on How Much Juice They Can Extract
Junior Division (7th - 8th Grade)	7th Grade	Chemistry	1st Place	Arizona College Prep - Oakland Campus	Clair Gustafson	Kunal Chawla	The Effect of Different Pipe Coatings on the Corrosion of Steel
Junior Division (7th - 8th Grade)	8th Grade	Chemistry	1st Place	Arizona College Prep - Oakland Campus	Kim Meyer	Kate Person	The Effect of the Color Pencil Base on the Spread by Solvent
Elementary Division (5th - 6th Grade)	6th Grade	Computer Science	1st Place	Arizona College Prep - Oakland Campus	Carlie Moss	William Ballew	The Effect of Crypto Currency Mined on Power Usage

Junior Division (7th - 8th Grade)	7th Grade	Earth & Planetary Science	1st Place	Arizona College Prep - Oakland Campus	Michelle Daly	Doer He	The Effect of Ventilation on Evaporation
Junior Division (7th - 8th Grade)	8th Grade	Earth & Planetary Science	1st Place	Arizona College Prep - Oakland Campus	Kim Meyer	Ethan Wolford	Are You Ready to Rumble?
Junior Division (7th - 8th Grade)	7th Grade	Engineering	1st Place	Arizona College Prep - Oakland Campus	Clair Gustafson	Sahasra Pechetty	Biodegradable Plastic
Elementary Division (5th - 6th Grade)	6th Grade	Environmental Sciences	1st Place	Arizona College Prep - Oakland Campus	Carlie Moss	Matthew Svienty	What Keeps You Cool? The Effect of Type of Insulation on the Temperature Difference Inside of a Model House Before and After
Junior Division (7th - 8th Grade)	7th Grade	Environmental Sciences	1st Place	Arizona College Prep - Oakland Campus	Clair Gustafson	Samantha Cox	The Effect of Different Types of Wax on the Dissolving Rate of Paper Straws
Junior Division (7th - 8th Grade)	8th Grade	Environmental Sciences	1st Place	Arizona College Prep - Oakland Campus	Kim Meyer	Jordan Hill	The Effect of Ground Cover Type on Soil Moisture Retention
Elementary Division (5th - 6th Grade)	6th Grade	Mathematical Sciences	1st Place	Arizona College Prep - Oakland Campus	Carlie Moss	Morgan Lavin	Dancing to the Coefficient of Friction! The Effect of Different Fabrics and Leathers on Four Different Dance Movements
Junior Division (7th - 8th Grade)	7th Grade	Mathematical Sciences	1st Place	Arizona College Prep - Oakland Campus	Clair Gustafson	Aaron Martin	The Effect of Root Functions on the Root Sum Square Error (RSSE) in Predicting Swim Times
Junior Division (7th - 8th Grade)	7th Grade	Medicine & Health Sciences	1st Place	Arizona College Prep - Oakland Campus	Michelle Daly	JT Mulvihill	The Effect of Football Helmet Lining or Coating

							on Impact Force to the Head
Elementary Division (5th - 6th Grade)	6th Grade	Physics & Astronomy	1st Place	Arizona College Prep - Oakland Campus	Carlie Moss	Jack Welch	Pucks Beware! The Effect of Hockey Stick Flex on Puck Speed as Measured by an Arduino Sensor
Junior Division (7th - 8th Grade)	7th Grade	Physics & Astronomy	1st Place	Arizona College Prep - Oakland Campus	Michelle Daly	Madison Smith	The Effect of LED Radio Frequencies on Household Remote-Control Interference
Elementary Division (5th - 6th Grade)	6th Grade	Plant Sciences	1st Place	Arizona College Prep - Oakland Campus	Carlie Moss	Shrinidhi Venkat	The Effect of the Technique in which Romaine Lettuce is Being Grown in to the Health and Growth of the Lettuce
Junior Division (7th - 8th Grade)	7th Grade	Plant Sciences	1st Place	Arizona College Prep - Oakland Campus	Michelle Daly	Alicia Bai	The Effect of Alkalinity on Germination
Elementary Division (5th - 6th Grade)	6th Grade	Animal Sciences	2nd Place	Arizona College Prep - Oakland Campus	Carlie Moss	Fiona Franz	The All You Can Eat Bee Buffet! Effect of Sugar Content in Concentration on Honey Bee Visitation Rate
Junior Division (7th - 8th Grade)	7th Grade	Animal Sciences	2nd Place	Arizona College Prep - Oakland Campus	Michelle Daly	Cailyn Bambanian	The Effect of Open Space and Going for Walks on the Weight of a Chihuahua
Junior Division (7th - 8th Grade)	8th Grade	Animal Sciences	2nd Place	Arizona College Prep - Oakland Campus	Kim Meyer	Candice Liu	The Effect of the Type of Scent on the Number of Mosquitoes Trapped
Junior Division (7th - 8th Grade)	8th Grade	Behavioral & Social Sciences	2nd Place	Arizona College Prep - Oakland Campus	Larissa Brown	Grace Oh-Lee	The Effect of Sensory Stimulation on

							Reading Comprehension Efficiency
Junior Division (7th - 8th Grade)	8th Grade	Cellular & Molecular Biology	2nd Place	Arizona College Prep - Oakland Campus	Kim Meyer	Iris Lyman	One Bad Apple Ruins the Barrel
Elementary Division (5th - 6th Grade)	6th Grade	Earth & Planetary Science	2nd Place	Arizona College Prep - Oakland Campus	Carlie Moss	Marissa Ruiz	Weathering Pots!!! The Effect of Weathering on Different Types of Pottery Clays
Junior Division (7th - 8th Grade)	7th Grade	Earth & Planetary Science	2nd Place	Arizona College Prep - Oakland Campus	Clair Gustafson	Michael Lau	The Effect of Wind Field Speed on the Velocity of a Hurricane
Elementary Division (5th - 6th Grade)	6th Grade	Engineering	2nd Place	Arizona College Prep - Oakland Campus	Carlie Moss	Lekha Shrivastava	The Effect of the Type of Wireless Communication on the Safety of the Patient by Creating Device that Prevents a Dementia Patient from Wandering Outside their Designated Zone
Junior Division (7th - 8th Grade)	7th Grade	Engineering	2nd Place	Arizona College Prep - Oakland Campus	Michelle Daly	Noah Nasir	The Effect of Magnets on Placement of Levitating Magnets in Millimeters
Junior Division (7th - 8th Grade)	8th Grade	Engineering	2nd Place	Arizona College Prep - Oakland Campus	Larissa Brown	Arhan Sankhla	Pure Water From the Air
Junior Division (7th - 8th Grade)	8th Grade	Medicine & Health Sciences	2nd Place	Arizona College Prep - Oakland Campus	Kim Meyer	Defne Aydin	Need a Drink?
Junior Division (7th - 8th Grade)	8th Grade	Plant Sciences	2nd Place	Arizona College Prep - Oakland Campus	Larissa Brown	Kenneth Su	The Effect of Mucilage of Drought Resistant Plants on Water Quality
Junior Division (7th - 8th Grade)	7th Grade	Behavioral & Social Sciences	3rd Place	Arizona College Prep - Oakland Campus	Michelle Daly	Isabella Small	The Power of the Mind

Junior Division (7th - 8th Grade)	8th Grade	Engineering	3rd Place	Arizona College Prep - Oakland Campus	Kim Meyer	Rahil Shah	Affordable Flood Alarm
Junior Division (7th - 8th Grade)	7th Grade	Environmental Sciences	3rd Place	Arizona College Prep - Oakland Campus	Michelle Daly	Shray Patel	The Effect of the Amount of Mangroves in a Saltwater System on the Decrease in the Salinity of the Water
Junior Division (7th - 8th Grade)	8th Grade	Plant Sciences	3rd Place	Arizona College Prep - Oakland Campus	Kim Meyer	Conner Redmond	Phytofighting
Junior Division (7th - 8th Grade)	7th Grade	Computer Science	Honorable Mention	Arizona College Prep - Oakland Campus	Michelle Daly	Eldrick Chang	The Effect of Transcription Complexity Reviewed by Program on the Number of Accurate Transcription Predictions
Junior Division (7th - 8th Grade)	7th Grade	Physics & Astronomy	Honorable Mention	Arizona College Prep - Oakland Campus	Clair Gustafson	Vir Dolasa- Sahani	The Effect of Different Types of Bathroom Floorings on the Amount of Friction Produced
Junior Division (7th - 8th Grade)	8th Grade	Physics & Astronomy	Honorable Mention	Arizona College Prep - Oakland Campus	Kim Meyer	Ellery Donlon	The Effect of the Type of Shoe on the Amount of Pirouettes
Junior Division (7th - 8th Grade)	7th Grade	Earth & Planetary Science	Water Wise Award	Arizona College Prep - Oakland Campus	Michelle Daly	Doer He	The Effect of Ventilation on Evaporation
Elementary Division (5th - 6th Grade)	5th Grade	Environmental Sciences	3rd Place	Basha Elementary School	Beth Northrop	Adam Slater Dylan Ramey Vala Hojabr	Which Water Would You Choose
Senior Division (9th - 12th Grade)	12th Grade	Animal Sciences	1st Place	Basha High School	Michael McKelvy	Nicholas Howell	Toxic Tipping Point: At what atmospheric CO2 levels and temperature do milkweed cardenolide concentrations

							become toxic to monarch butterflies?
Senior Division (9th - 12th Grade)	11th Grade	Cellular and Molecular Biology	1st Place	Basha High School	Michael McKevely	Elise Bouchal	Exploring the Impact of Neural Mutation on Neuron Size and Connectivity
Senior Division (9th - 12th Grade)	12th Grade	Energy: Physical	1st Place	Basha High School	Michael McKelvy	Thomas McGowan Colin Tucker	The Use of Chia Seed Mucilage on the Efficiency and Heat Retention of Gel Solar Ponds
Elementary Division (5th - 6th Grade)	6th Grade	Engineering	1st Place	Basha High School	Charina DeCaro	Riya Gaur Divya Natarajan Prisha Shroff	Aqua Saver
Elementary Division (5th - 6th Grade)	6th Grade	Environmental Sciences	2nd Place	Basha High School	Charina DeCaro	Nishka Bhoite Eashani Ghosh Sofia Borczon	Are You Drinking Plastic
Junior Division (7th - 8th Grade)	7th Grade	Physics & Astronomy	2nd Place	Basha High School	Miranda Thornton	Jerome Kau	Skies the Limit
Senior Division (9th - 12th Grade)	11th Grade	Physics and Astronomy	2nd Place	Basha High School	Michael McKelvy	Brandon Saylor	Extending the Capabilities of Amateur Astronomy to Determine if a Visual Multiple Star System is Gravitationally Bound
Junior Division (7th - 8th Grade)	8th Grade	Physics & Astronomy	3rd Place	Basha High School	Meghan Dunigan	Karvin Sheble	Surface Superiority
Elementary Division (5th - 6th Grade)	6th Grade	Plant Sciences	3rd Place	Basha High School	Charina DeCaro	Elizabeth Ovelil Jasmine Ho Zachary Huang	Hydroponics
Senior Division (9th - 12th Grade)	12th Grade	Energy: Physical	Best of Fair: Physical	Basha High School	Michael McKelvy	Thomas McGowan Colin Tucker	The Use of Chia Seed Mucilage on the Efficiency and Heat Retention of Gel Solar Ponds
Junior Division (7th - 8th Grade)	7th Grade	Behavioral & Social Sciences	Honorable Mention	Basha High School	Kate Nall	Shreya Ganesh Maddie Seal	Fingerprints

Senior Division (9th - 12th Grade)	10th Grade	Biochemistry	Honorable Mention	Basha High School	Michael McKelvy	Ryenne Belt	Optimization of the Protection of PBMC Utilizing STF after Exposure to Chemotherapy
Senior Division (9th - 12th Grade)	12th Grade	Earth and Environmental Sciences	Honorable Mention	Basha High School	Michael McKelvy	Aiden Neill Ethan LaBelle	Predicting Colony Collapse Disorder using a Convolutional Neural Network
Senior Division (9th - 12th Grade)	12th Grade	Environmental Engineering	Honorable Mention	Basha High School	Michael McKelvy	Katie Sue Pascavis	The Utilization of Biochar Produced from Switchgrass for the Removal of Heavy Metal Ions from Water
Junior Division (7th - 8th Grade)	8th Grade	Environmental Sciences	Honorable Mention	Basha High School	Meghan Dunigan	Evan Kienholz	Wind Power and Transportation = Our Future
Senior Division (9th - 12th Grade)	9th Grade	Plant Sciences	Honorable Mention	Basha High School	Charina DeCaro	Loretta Tran Braque Unger	Acid Rain
Elementary Division (5th - 6th Grade)	6th Grade	Engineering	Intel Innovator Award	Basha High School	Charina DeCaro	Riya Gaur Divya Natarajan Prisha Shroff	Aqua Saver
Junior Division (7th - 8th Grade)	8th Grade	Mathematical Sciences	1st Place	Bogle Junior High School	Tammy Goodman	Dominique Moise	Skyscrapers in Metro Phoenix
Junior Division (7th - 8th Grade)	8th Grade	Computer Science	2nd Place	Bogle Junior High School	Cassandra Chilton	Luke Dempsey Mathew Griffin	What is the Effect of Different Methods of Password Protection on the Amount of Time it Takes a Rainbow Table to Bypass Them?
Junior Division (7th - 8th Grade)	7th Grade	Environmental Sciences	2nd Place	Bogle Junior High School	Julie Clark	Andrew Lee	Lateral Erosion on River Banks
Junior Division (7th - 8th Grade)	8th Grade	Environmental Sciences	2nd Place	Bogle Junior High School	Christina Morrison	Anna Maier	Run-off Water: A Pollution Problem
Junior Division (7th - 8th Grade)	8th Grade	Behavioral & Social Sciences	3rd Place	Bogle Junior High School	Cassandra Chilton	Brenna Buckley	Music and Memorization
Junior Division (7th - 8th Grade)	8th Grade	Medicine & Health Sciences	3rd Place	Bogle Junior High School	Cassandra Chilton	Nikasha Kapadia	The Effect of Various

							Household Remedies in Lieu of Base Coat on Nail Yellowing Rates
Junior Division (7th - 8th Grade)	8th Grade	Mathematical Sciences	Honorable Mention	Bogle Junior High School	Tammy Goodman	Jacob Hernandez	The Velocity at Which the Ball is Thrown Affects the Distance it Traveled
Senior Division (9th - 12th Grade)	9th Grade	Mathematics	2nd Place	Casteel High School	Jentry Yard	Ashley Kalscheur	The Math and Marketing Behind Mother Nature: Correlating the Fibonacci Sequence with Monocotyledon and Dicotyledon Flower Sales
Junior Division (7th - 8th Grade)	8th Grade	Physics & Astronomy	2nd Place	Casteel High School	Robin Flyte	Madison Rueb	Accidental Physics
Junior Division (7th - 8th Grade)	8th Grade	Cellular & Molecular Biology	3rd Place	Casteel High School	Robin Flyte	Bianca Abne	What are the effects of different microbial extracts on bacterial cultures of Escherichia Coli?
Junior Division (7th - 8th Grade)	8th Grade	Environmental Sciences	3rd Place	Casteel High School	Robin Flyte	Madeline Salonic	Practically Plastic, Basically Bioplastic
Junior Division (7th - 8th Grade)	7th Grade	Earth & Planetary Science	Honorable Mention	Casteel High School	Robin Flyte	Mackenzie Long	Hurricanes Affecting Clouds
Junior Division (7th - 8th Grade)	8th Grade	Plant Sciences	Honorable Mention	Casteel High School	Robin Flyte	Ashlyn Drew	Heightened Hydroponics
Senior Division (9th - 12th Grade)	10th Grade	Robotics and Intelligent Machines	2nd Place	Chandler High School	Donna Bond	Aryan Mathur	A Low Cost Intelligent Machine for Folding Clothes
Senior Division (9th - 12th Grade)	12th Grade	Biomedical and Health	3rd Place	Chandler High School	Katie Nash	Cassandra Smith	Genetic Variation in SP-A2 and the Effects on Phagocytosis
Senior Division (9th - 12th Grade)	12th Grade	Chemistry	Honorable Mention	Chandler High School	Katie Nash	Isha Paode	The Effect of the Concentration of NaCl ions in a

							Solution on the Rate of Osmosis in Chicken Skin
Elementary Division (5th - 6th Grade)	5th Grade	Earth & Planetary Science	1st Place	CTA - Freedom Campus	Mary Jo White	Andrew Garcia Brycen Conrad Connor Weigele	Solar Powered Water Fountain
Elementary Division (5th - 6th Grade)	5th Grade	Physics & Astronomy	1st Place	CTA - Freedom Campus	Mary Jo White	Delainey VanZuidam Noah Thomas Jaden Lau	Epic Magnetic Levitation
Elementary Division (5th - 6th Grade)	5th Grade	Earth & Planetary Science	2nd Place	CTA - Freedom Campus	Mary Jo White	Sawyer Hauk Edgar Jimenez Gianna Owens	Color Coordination: Which Lens Works The Best?
Elementary Division (5th - 6th Grade)	5th Grade	Environmental Sciences	2nd Place	CTA - Freedom Campus	Mary Jo White	Samantha Felix Eleonora Warner Addison Boysaw	Underwater Volcano
Elementary Division (5th - 6th Grade)	6th Grade	Chemistry	Honorable Mention	CTA - Goodman Campus	Sarah Morris	Heath Owens Benjamin Nicholls Troy Abney	Scrumptious Science
Elementary Division (5th - 6th Grade)	5th Grade	Environmental Sciences	Water Wise Award	CTA - Goodman Campus	Carolyn Fox	Nico Acedo Kaden Blunt Ayden Letona Martinez	Don't Think Salty
Elementary Division (5th - 6th Grade)	5th Grade	Plant Sciences	2nd Place	CTA - Humphrey Campus	Jerome Hale	Allison Bowman Randy Renteria Temoxtle	Growing Grass
Elementary Division (5th - 6th Grade)	5th Grade	Plant Sciences	Honorable Mention	CTA - Humphrey Campus	Jerome Hale	Lila Heffron Kiley Jacobson Haseeb Qader	The Brightest Flowers
Elementary Division (5th - 6th Grade)	5th Grade	Engineering	2nd Place	CTA - Independence Campus	Taryn Johnston	Samyak Duggirala Alex Kim	Egg celent Experiment
Elementary Division (5th - 6th Grade)	5th Grade	Environmental Sciences	Honorable Mention	CTA - Independence Campus	Carly Aho	Aaron Cao Rampranav Maremanda Dominic Servino	Egg prot-"egg"tion
Elementary Division (5th - 6th Grade)	5th Grade	Chemistry	3rd Place	Elite Performance Academy	Julie Mosca	Leila Tensuan	The Power of Fruits and Vegetables
Elementary Division (5th - 6th Grade)	6th Grade	Earth & Planetary Science	3rd Place	Fulton Elementary School	Nicole Renio	Tyler Mesias Maci Maruca Hannah Rahamim	This Experiment Will Blow You Away!

Elementary Division (5th - 6th Grade)	6th Grade	Engineering	3rd Place	Fulton Elementary School	Tonja Pichardo	Lexi Factor Addison Sroufe Chloe Chapman	Icy Flask
Elementary Division (5th - 6th Grade)	5th Grade	Medicine & Health Sciences	2nd Place	Haley Elementary School	Bradley Guggisberg	Kelty Bartholomew Nathan Watson Loper Jordan	How Absorbent is your Diaper?
Elementary Division (5th - 6th Grade)	6th Grade	Medicine & Health Sciences	3rd Place	Haley Elementary School	Ashley Armendariz	Julia Fountain Lilly Watson Henley Coyle	Pain Pain Go Away
Senior Division (9th - 12th Grade)	9th Grade	Biochemistry	1st Place	Hamilton High School	Jyoti Nair	Anshul Verma	Reducing Food Waste Using Cloud Analytics
Senior Division (9th - 12th Grade)	11th Grade	Biomedical and Health	1st Place	Hamilton High School	Debbie Nipar	Maggie Han	Microbiome Profiling of Saliva Samples from Patients with Head and Neck Squamous Cell Carcinoma
Senior Division (9th - 12th Grade)	9th Grade	Chemistry	1st Place	Hamilton High School	Jyoti Nair	Ashlyn Wang	Gelatin pHacts
Senior Division (9th - 12th Grade)	10th Grade	Computational Biology and Bioinformatics	1st Place	Hamilton High School	Mina Bhagdev	Matthew Torel	Interferon Gamma and Eosinophil Cells
Senior Division (9th - 12th Grade)	10th Grade	Earth and Environmental Sciences	1st Place	Hamilton High School	Dawn Dawson	Rishabh Guttal	Sugarcane Waste as a Potential Oil Adsorbent: Characterization of an Effective and Sustainable Approach to Controlling Oil Spills
Senior Division (9th - 12th Grade)	9th Grade	Embedded Systems	1st Place	Hamilton High School	Raxha Bhagdev	Shruti Ramkumar	A Smartphone Enabled, Low Cost, Novel Approach to Monitoring Air Quality
Senior Division (9th - 12th Grade)	10th Grade	Embedded Systems	1st Place	Hamilton High School	Sara Loutzenheiser	Joshua Grumski	Effect of the Number of Hidden Layers of Efficiency in a

							Convolutional Neural Network
Senior Division (9th - 12th Grade)	9th Grade	Environmental Engineering	1st Place	Hamilton High School	Tricia Mitchell	Thilina Balasooriya Pranav Mantri	IoT Based Smart Watering System
Senior Division (9th - 12th Grade)	10th Grade	Materials Science	1st Place	Hamilton High School	Mina Bhagdev	Dravid Navale	Geopolymer Nanoaggregate and Nano-Zero Valent Iron Carcinogen Remover/Absorber
Senior Division (9th - 12th Grade)	12th Grade	Mathematics	1st Place	Hamilton High School	Debbie Nipar	Michael Chung Shivam Mohite	Zeno What I Mean Riemann?
Senior Division (9th - 12th Grade)	9th Grade	Microbiology	1st Place	Hamilton High School	Tricia Mitchell	Matthew Layne Vinay Raman	A Novel Way to Approach the Bio-Degradation of Oil Spills Implementing Ultra Archaeobacteria and its Effect on the Difference in Interfacial Tension of Oil
Senior Division (9th - 12th Grade)	10th Grade	Physics and Astronomy	1st Place	Hamilton High School	Dawn Dawson	Alexander Gonzalez	An Integrated Environment on Mars for Visualizing Ground-Based and Orbital Planetary Data
Senior Division (9th - 12th Grade)	12th Grade	Systems Software	1st Place	Hamilton High School	Mina Bhagdev	Grace Zhang	A Framework for Proactive Cyber-Attack Prediction by Mining Dark Web Threat Intelligence
Senior Division (9th - 12th Grade)	11th Grade	Behavioral and Social Sciences	2nd Place	Hamilton High School	Debbie Nipar	Devrath Iyer	Automatically Analyzing Open-Ended Survey Responses using Statistical and Machine

							Learning Methods
Senior Division (9th - 12th Grade)	12th Grade	Biomedical and Health	2nd Place	Hamilton High School	Debbie Nipar	Mindy Long	What's in your blood?
Senior Division (9th - 12th Grade)	12th Grade	Cellular and Molecular Biology	2nd Place	Hamilton High School	Mina Bhagdev	Benjamin Voller-Brown Roshan Sanyal	Investigating the ability to prevent lysis of influenza through the integration of gold nanoparticles
Senior Division (9th - 12th Grade)	10th Grade	Earth and Environmental Sciences	2nd Place	Hamilton High School	Debbie Nipar	Aris Zhu Shreya Tripathi	Biochar Filtrate: A Novel Approach to Lead Absorption
Senior Division (9th - 12th Grade)	10th Grade	Energy: Chemical	2nd Place	Hamilton High School	Sara Loutzenheiser	Garrett Young Shristi Garg Aditi Vannela	Algae Biofuel Productivity
Senior Division (9th - 12th Grade)	9th Grade	Engineering Mechanics	2nd Place	Hamilton High School	Dawn Dawson	Alyssa Wong Candice DeCuna	The Effect of Different Sizes of Wind Turbine Blades on the Number of Complete Rotations
Senior Division (9th - 12th Grade)	9th Grade	Materials Science	2nd Place	Hamilton High School	Kayla Canfield	Rujuta Sane Bianca Ashar	The Effect of Polyvinyl Alcohol on a Starch Based Polymer
Senior Division (9th - 12th Grade)	9th Grade	Materials Science	2nd Place	Hamilton High School	Dawn Dawson	Risha Bhoite	The Effect of the Type of Polymeric Carbohydrate on Tensile Strength and Decomposition of Bioplastics
Senior Division (9th - 12th Grade)	12th Grade	Microbiology	2nd Place	Hamilton High School	Debbie Nipar	Shaun Victor	Are Your Cells Stressed?
Senior Division (9th - 12th Grade)	10th Grade	Plant Sciences	2nd Place	Hamilton High School	Dawn Dawson	Sherif Elsayed	The Effect of the Type of Fertilizer Solutions on the Rate of Growth of

							Tomato, Arugula, and Coriander
Senior Division (9th - 12th Grade)	12th Grade	Systems Software	2nd Place	Hamilton High School	Debbie Nipar	Sanjana Sarkar Andy Wong	Trafficking Light: Putting a Stop to the Vehicles of Human Trafficking Online
Senior Division (9th - 12th Grade)	9th Grade	Animal Sciences	3rd Place	Hamilton High School	Jyoti Nair	Shreyas Konanki Deval Deliwala	The Effect of Magnetism on the Regeneration of Planaria
Senior Division (9th - 12th Grade)	10th Grade	Earth and Environmental Sciences	3rd Place	Hamilton High School	Sara Loutzenheiser	Ika Lin	The Effect of the Type of Starch Used in the Production of Bioplastics on the Durability of Bioplastics
Senior Division (9th - 12th Grade)	9th Grade	Embedded Systems	3rd Place	Hamilton High School	Jyoti Nair	Benjamin Tung	The Gameboy Zero: a Retro Gaming Emulator
Senior Division (9th - 12th Grade)	12th Grade	Environmental Engineering	3rd Place	Hamilton High School	Mina Bhagdev	Akshay Murali Tejas Singh Gautam Sethi	Application of Natural Ingredients to Remove Impurities in Water
Senior Division (9th - 12th Grade)	10th Grade	Microbiology	3rd Place	Hamilton High School	Kayla Canfield	Alina Chisti	Sustainable Alternatives to Agrochemicals: The Effect of Nitrogen Fertilizer versus Rhizobium Bacteria on Plant Growth
Senior Division (9th - 12th Grade)	9th Grade	Physics and Astronomy	3rd Place	Hamilton High School	Brian Sears	Savar Sinha	Ising Spin Model: From Ferromagnets to Financial Markets
Senior Division (9th - 12th Grade)	12th Grade	Robotics and Intelligent Machines	3rd Place	Hamilton High School	Debbie Nipar	Jerry Sun	Squiggling in the Air: A Fickle Approach to Biometric Security

Senior Division (9th - 12th Grade)	11th Grade	Biomedical and Health	Best of Fair: Biological	Hamilton High School	Debbie Nipar	Maggie Han	Microbiome Profiling of Saliva Samples from Patients with Head and Neck Squamous Cell Carcinoma
Senior Division (9th - 12th Grade)	12th Grade	Energy: Chemical	Honorable Mention	Hamilton High School	Raxha Bhagdev	Samihan Dani	Ammonia Gas Delivery via Composite Hollow Fiber Membranes for Microalgal Cultivation
Senior Division (9th - 12th Grade)	9th Grade	Engineering Mechanics	Honorable Mention	Hamilton High School	Shannon Prince	Michael Randolph	The Effect of Variable Metal Width and Space on Quality Factor of Spiral Inductors
Senior Division (9th - 12th Grade)	9th Grade	Mathematics	Honorable Mention	Hamilton High School	Taylor Hale	William Napolitano	The Effect of Different Income Tax Percentages on Gross National Product
Senior Division (9th - 12th Grade)	10th Grade	Physics and Astronomy	Honorable Mention	Hamilton High School	Dawn Dawson	Annika Buel	The Effect a Racket Dampener has on the Amount of Vibration in a Tennis Racket
Senior Division (9th - 12th Grade)	11th Grade	Robotics and Intelligent Machines	Honorable Mention	Hamilton High School	Raxha Bhagdev	Travis Zhang	GAN-based Synthetic Medical Image Augmentation for Increased CNN Performance in Skin Cancer Classification
Senior Division (9th - 12th Grade)	10th Grade	Physics and Astronomy	Intel Innovator Award	Hamilton High School	Dawn Dawson	Alexander Gonzalez	An Integrated Environment on Mars for Visualizing Ground-Based and Orbital Planetary Data

Senior Division (9th - 12th Grade)	10th Grade	Environmental Engineering	SRP Engineering Award	Hamilton High School	Raxha Bhagdev	Arthur Yang	Investigating Geobacter Sulfurreducens For Simultaneous Soil Bioremediation and Power Generation
Senior Division (9th - 12th Grade)	9th Grade	Environmental Engineering	Water Wise Award	Hamilton High School	Tricia Mitchell	Thilina Balasooriya Pranav Mantri	IoT Based Smart Watering System
Elementary Division (5th - 6th Grade)	6th Grade	Physics & Astronomy	2nd Place	Hull Elementary School	Monica Kennedy	Enzo Borrego	Laser Beams
Elementary Division (5th - 6th Grade)	6th Grade	Animal Sciences	3rd Place	Hull Elementary School	Monica Kennedy	Annie Andersen	Tortoiseshell Cat Genetics
Elementary Division (5th - 6th Grade)	6th Grade	Chemistry	3rd Place	Hull Elementary School	Monica Kennedy	Christian Earl Alexander Ngo	Electrolyte Extravaganza
Elementary Division (5th - 6th Grade)	6th Grade	Physics & Astronomy	3rd Place	Hull Elementary School	Monica Kennedy	Addison Baltodano	Simple Harmonic Motion
Elementary Division (5th - 6th Grade)	6th Grade	Animal Sciences	Honorable Mention	Hull Elementary School	Monica Kennedy	Sierra Powers	Daphnia Magnificent
Elementary Division (5th - 6th Grade)	6th Grade	Behavioral & Social Sciences	Honorable Mention	Hull Elementary School	Monica Kennedy	Emma Schmidt	Music Media
Elementary Division (5th - 6th Grade)	6th Grade	Computer Science	2nd Place	Jacobson Elementary School	Ashleigh Gahn	Nathan Nguyen Andrew Nelson Luke Jones	The Brawl of the Brilliant Voice Assistants
Elementary Division (5th - 6th Grade)	6th Grade	Computer Science	3rd Place	Jacobson Elementary School	Shannan Wright	Alex Huang Abhijay (Jay) Tambe	Going Green on Laptops
Elementary Division (5th - 6th Grade)	5th Grade	Engineering	3rd Place	Jacobson Elementary School	Sue Clapham	James Belardo Kyle Ray Ziyad Hassan	Shinguard Shenanigans
Elementary Division (5th - 6th Grade)	6th Grade	Medicine & Health Sciences	Honorable Mention	Jacobson Elementary School	Ashleigh Gahn	Caroline Ritchie Reese Whyte	pH Problem
Elementary Division (5th - 6th Grade)	5th Grade	Chemistry	1st Place	Knox Gifted Academy	Mary Thompson	Ceyda Oz Neil Joshi Shreyas Bhatt	Toxic Waters: The Effects of Water Pollution on Algae

Elementary Division (5th - 6th Grade)	5th Grade	Engineering	1st Place	Knox Gifted Academy	Wildflower Vogt	Ashwin Iyengar Aditya Malge Jordan Serres-Gonzalez	Energy Of The Future
Elementary Division (5th - 6th Grade)	5th Grade	Environmental Sciences	1st Place	Knox Gifted Academy	Pam Durham	Manasi Mouli Reva Shah Alex Hu	Fertilizer On Fenugreek
Elementary Division (5th - 6th Grade)	6th Grade	Medicine & Health Sciences	1st Place	Knox Gifted Academy	Albert Notley	Emma Weiss Disha Sankhla	Toxic Beauty
Elementary Division (5th - 6th Grade)	6th Grade	Plant Sciences	2nd Place	Knox Gifted Academy	Albert Notley	Colin Shunk Noah Burboz	Aquatic Plants or Terrestrial Plants
Elementary Division (5th - 6th Grade)	5th Grade	Plant Sciences	3rd Place	Knox Gifted Academy	Mary Thompson	Maya Komenaka Sanskriti Dobriyal Gabriela Sheffield	Hydroponics: A Sustainable Source for Growing Plants
Elementary Division (5th - 6th Grade)	5th Grade	Behavioral & Social Sciences	Honorable Mention	Knox Gifted Academy	Sara Zion	Siya Poddar Kennedy In	Naturally Needing Nature
Elementary Division (5th - 6th Grade)	6th Grade	Animal Sciences	1st Place	Navarrete Elementary School	Joanne Terrell	Alexis Lemus Ruby Copeland	Plastic-Eating Worms
Elementary Division (5th - 6th Grade)	6th Grade	Earth & Planetary Science	1st Place	Navarrete Elementary School	Joanne Terrell	Sadie Hartman Ashlyn Endicott	Efficacious Erosion
Elementary Division (5th - 6th Grade)	5th Grade	Chemistry	2nd Place	Navarrete Elementary School	Sonia Ballesteros	Preston Womatopolous Tyler Lavigne Jacob Rosales	Solar Oven
Elementary Division (5th - 6th Grade)	6th Grade	Chemistry	2nd Place	Navarrete Elementary School	Lisette Bingold	Jack Gerovac	Glowing Reactions
Elementary Division (5th - 6th Grade)	6th Grade	Mathematical Sciences	2nd Place	Navarrete Elementary School	Joanne Terrell	Carter Henry Trey Howardell	Probability Possibilities
Elementary Division (5th - 6th Grade)	6th Grade	Medicine & Health Sciences	2nd Place	Navarrete Elementary School	Joanne Terrell	Riley Wiggins	pH in Cheese
Elementary Division (5th - 6th Grade)	6th Grade	Environmental Sciences	3rd Place	Navarrete Elementary School	Kelly Miller	Jacqueline Reynolds Paige Watson Yami Johnson	Micro-Problem
Elementary Division (5th - 6th Grade)	6th Grade	Engineering	Honorable Mention	Navarrete Elementary School	Joanne Terrell	David Richter Garrett	Length vs Strength

						Silvertooth Tate Carpenter	
Elementary Division (5th - 6th Grade)	6th Grade	Environmental Sciences	Honorable Mention	Navarrete Elementary School	Joanne Terrell	Carter Pettit	Drastic Desalinization
Elementary Division (5th - 6th Grade)	6th Grade	Environmental Sciences	Water Wise Award	Navarrete Elementary School	Joanne Terrell	Carter Pettit	Drastic Desalinization
Junior Division (7th - 8th Grade)	7th Grade	Chemistry	2nd Place	Payne Junior High School	Victoria Loftis	Jeanna Warren	Drop It Like It's Cool
Junior Division (7th - 8th Grade)	8th Grade	Earth & Planetary Science	2nd Place	Payne Junior High School	Anna LeBaron	McKay Hartman	The Effect of Different Surface Material on Soil Erosion
Junior Division (7th - 8th Grade)	7th Grade	Chemistry	3rd Place	Payne Junior High School	Victoria Loftis	Sarah Ritchie	The Effect of Temperature on Rolling Balls
Junior Division (7th - 8th Grade)	7th Grade	Medicine & Health Sciences	3rd Place	Payne Junior High School	Rosemary Schlechty	Lilia Allen	Deep Knee Bends
Junior Division (7th - 8th Grade)	7th Grade	Medicine & Health Sciences	Honorable Mention	Payne Junior High School	Rosemary Schlechty	Haylee Headrick	Great Globbs of Gluten
Junior Division (7th - 8th Grade)	8th Grade	Medicine & Health Sciences	Honorable Mention	Payne Junior High School	Amber Ferguson	Isabel Marley	Mindfulness Meditation: The Effect of Meditation on Blood Pressure, Heart Rate and Stress Level
Junior Division (7th - 8th Grade)	8th Grade	Environmental Sciences	Water Wise Award	Payne Junior High School	Anna LeBaron	Allison Freestone	Preserving Freshwater Through Surface Area
Senior Division (9th - 12th Grade)	9th Grade	Energy: Chemical	1st Place	Perry High School	Stephanie Hawkins	Nathan Lam	A Novel Approach to the Improvement of Algae Biofuel Productions Through the Conjunction of Varying pH Levels and the Use of Bacillus subtilis During Flocculation

Senior Division (9th - 12th Grade)	11th Grade	Behavioral and Social Sciences	3rd Place	Perry High School	Karen Hutchinson	Evan Crabtree Cade Commers	Effects of Cell Phone Use on Loneliness
Senior Division (9th - 12th Grade)	9th Grade	Chemistry	3rd Place	Perry High School	Coleen O'Shea	Adia Harsen	The Power of Bleach: The Effect of Different Bleach Concentrations on Bacterial Growth
Senior Division (9th - 12th Grade)	12th Grade	Engineering Mechanics	3rd Place	Perry High School	Karen Hutchinson	Aidan Powers	How to Build a Ground Effect Vehicle
Senior Division (9th - 12th Grade)	9th Grade	Plant Sciences	3rd Place	Perry High School	Coleen O'Shea	Theo Powers	Plant Lives Matter
Senior Division (9th - 12th Grade)	9th Grade	Systems Software	3rd Place	Perry High School	Jerry Irion	Jack Hibbs	Maze Solving
Senior Division (9th - 12th Grade)	9th Grade	Physics and Astronomy	Honorable Mention	Perry High School	Jerry Bell	Vickram Sulhan	The Effect of Temperature Variation and Additive Content Variation on Refractive Index of Water
Elementary Division (5th - 6th Grade)	5th Grade	Physics & Astronomy	2nd Place	Ryan Elementary School	Taha Brock	Ellie Wilde Mckenna Jones	The Trail of Footprints
Elementary Division (5th - 6th Grade)	5th Grade	Mathematical Sciences	Honorable Mention	Ryan Elementary School	Taha Brock	Drew Martin Logan Engelken	Dice Probabilities
Elementary Division (5th - 6th Grade)	5th Grade	Physics & Astronomy	Honorable Mention	Ryan Elementary School	Nicole Witte	Kristy Nguyen Tatum Hernandez Eden Myers	Levitating Magnets
Elementary Division (5th - 6th Grade)	6th Grade	Plant Sciences	Honorable Mention	Ryan Elementary School	Tracy Silva	Ashley Woodburn Rylynn Kornegay	How Much Acid Can a Plant Take?
Elementary Division (5th - 6th Grade)	5th Grade	Medicine & Health Sciences	1st Place	Sanborn Elementary School	Ellissa White	Yahir Garcia Jordan Villanuvae Ryan Pettigrew	French Fries
Elementary Division (5th - 6th Grade)	5th Grade	Physics & Astronomy	3rd Place	Santan Elementary School	Kelli Ems	Adam Edwards Kaleb Seow Aharnish Tripathi	Spherical Forces

Junior Division (7th - 8th Grade)	8th Grade	Engineering	1st Place	Santan Junior High School	Kristina Plona	Sahir Jahan Andrew Mickey	Water Desalination
Junior Division (7th - 8th Grade)	8th Grade	Plant Sciences	1st Place	Santan Junior High School	Kristina Plona	Michelle Hu	The Silver Lining of Nanosilver
Junior Division (7th - 8th Grade)	7th Grade	Behavioral & Social Sciences	2nd Place	Santan Junior High School	Kristina Plona	Laurence Nabboud Stella Jones Regan Acevedo	Music Maddness
Junior Division (7th - 8th Grade)	7th Grade	Plant Sciences	2nd Place	Santan Junior High School	Richard Pysher	Taylor Steinhilber Angela Chang Tomiyah Shines	Battle of the plants
Junior Division (7th - 8th Grade)	7th Grade	Earth & Planetary Science	3rd Place	Santan Junior High School	Amy Ring	Aarush Murari	Are our cities getting hotter?
Junior Division (7th - 8th Grade)	7th Grade	Physics & Astronomy	3rd Place	Santan Junior High School	Amy Ring	Bryson Ring Aidan Knight Pierre Foster	Soaring High in the Sky with the K-9 Cannon
Junior Division (7th - 8th Grade)	7th Grade	Plant Sciences	Honorable Mention	Santan Junior High School	Richard Pysher	Claire Schwartz Leah Goble	What is the effect of soil types on how tall a plant grows?
Junior Division (7th - 8th Grade)	7th Grade	Medicine & Health Sciences	2nd Place	Willis Junior High School	Jason Prichard	Emma Hogarth Ella Kraver	Can't Stop the Beat
Junior Division (7th - 8th Grade)	7th Grade	Plant Sciences	3rd Place	Willis Junior High School	Jason Prichard	Madi Ferrari Arianna Wheeler Angel Rojas	The Effect of Plants on Temperature
Junior Division (7th - 8th Grade)	7th Grade	Chemistry	Honorable Mention	Willis Junior High School	Jason Prichard	Adeline Compton	The Effect of Type of Paper on how Much Weight the Sheet Holds
Junior Division (7th - 8th Grade)	8th Grade	Chemistry	Honorable Mention	Willis Junior High School	Jason Prichard	Claire Adams Veronica Tapia Velazquez	How Do Battery Voltages Affect the Decomposition Rate of Water?
Junior Division (7th - 8th Grade)	7th Grade	Medicine & Health Sciences	Intel Innovator Award	Willis Junior High School	Jason Prichard	Emma Hogarth Ella Kraver	Can't Stop the Beat