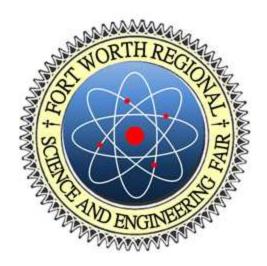
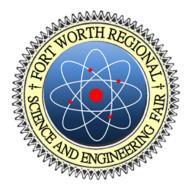


Special Awards





American Industrial Hygiene Association North Texas Section

1st Place: Mask up or back up!

Project ID: 147227

School: LIBERTY CHRISTIAN SCHOOL M S

Division: Junior

Category: Engineering: Materials & Bioengineering

Students: Naya Salfiti

1st Place: The Effect of Methylprednisolone and D-methionine on Noise-induced Hearing

Loss

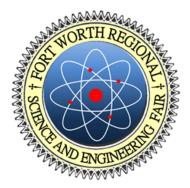
Project ID: 148691

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Medicine & Health Sciences

Students: Savannah Cheng



American Meteorological Society

1st Place: Analyzing the Effects of the Addition of Limestone as a Method to Mediate

Freshwater Acidification

Project ID: 143682

School: Colleyville Heritage High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Jadd Hashem

1st Place: Coral Reef Crisis: The Evaluation of Pentamerous Limestone with Various

Aquatic Plants and their Effects on Coral Reefs

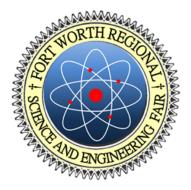
Project ID: 144572

School: Colleyville Heritage High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Naomi Carleo



American Psychological Association

1st Place: The Analysis of How Internet Use Affects the Hypothalamus' Control Over Sleep

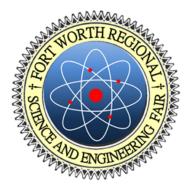
Project ID: 143517

School: Colleyville Heritage High School

Division: Senior

Category: Behavioral & Social Sciences

Students: Keto Khubchandani



American Society for Quality, Greater Fort Worth Section 1416

1st Place: Don't Get Burned

Project ID: 141900

School: Jerry Knight Stem Academy

Division: Junior

Category: Engineering: Materials & Bioengineering

Students: Kyle Alferink

1st Place: Molecular Dynamics Investigation of Poly [ADP-Ribose] Polymerase 1 Inhibitors

as Treatment for V762A Single-Nucleotide Polymorphism Correlated with Lung

and Ovarian Cancer

Project ID: 149256

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Biochemistry, Cellular, & Molecular Biology

Students: Neel Shanmugam

2nd Place: Methods to Control the Pore Sizes and Shapes of Electrospun Nanofibers for Cell

Study

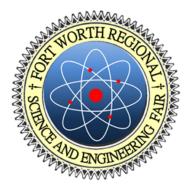
Project ID: 148729

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Biochemistry, Cellular, & Molecular Biology

Students: Cindy Liang



American Society for Quality, Greater Fort Worth Section 1416

2nd Place: Comparative Evaluation of Salt Water Rinse with Cetylpyridinium Chloride

Against Oral Microbes

Project ID: 151691

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Division: Junior

Category: Microbiology

Students: Pavan Ahluwalia

3rd Place: Genetic Modification of Medicago sative to increase the Production of

Proanthocyanidins in Epidermal Tissues

Project ID: 150770

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Plant Sciences

Students: Sai Sarnala

3rd Place: Heat Up Your Golf Game: effects of temperature on the speed and distance of

your golf ball

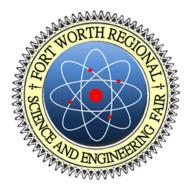
Project ID: 153096

School: Colleyville Middle School

Division: Junior

Category: Physics & Astronomy

Students: Jimmy Nackley



ASM Materials Education Foundation

1st Place: The Analysis of Chitosan in Reducing the Initial Burst Effect in Electrospun

Nanofiber-Based Drug Delivery Systems (DDS)

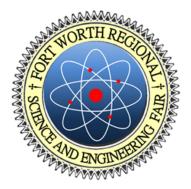
Project ID: 146041

School: Colleyville Heritage High School

Division: Senior

Category: Engineering: Materials & Bioengineering

Students: Sunehra Chowdhury



Charlie Mary Noble Award in Astronomy

1st Place: The Point of a Parabola: Focusing Signals for a Better Wireless Network

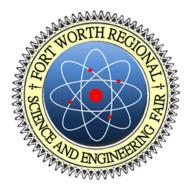
Project ID: 138805

School: ST. ELIZABETH ANN SETON CATHOLIC MIDDLE SCHOOL

Division: Junior

Category: Physics & Astronomy

Students: Nathan Brinkley



Ellen and Delbert E. Lawry Award

1st Place: The Analysis of Water and Soil Contamination from Herbicides

Project ID: 146710

School: Colleyville Heritage High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Rayaan Bhaidani

1st Place: Hydropower: Putting Water to Work

Project ID: 153427

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Division: Junior

Category: Engineering: Electrical & Mechanical

Students: Jordan Thomas

2nd Place: Material Detector: Detecting the Material of Items through Photoelectric,

Inductive, and Force Pressure Sensors

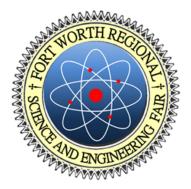
Project ID: 153630

School: The Oakridge School

Division: Senior

Category: Environmental Management & Sciences

Students: Eshan Singhal



Ellen and Delbert E. Lawry Award

2nd Place: Produce Preservation

Project ID: 153998

School: HARMONY ACADEMY - EULESS MIDDLE SCHOOL

Division: Junior

Category: Plant Sciences

Students: Shoayb Jilani

1st Alt: Rapid Race Cars

Project ID: 139841

School: ST. ELIZABETH ANN SETON CATHOLIC MIDDLE SCHOOL

Division: Junior

Category: Physics & Astronomy

Students: Gavin Sweitzer

2nd Alt: The Applications of Ground Effect Vehicles

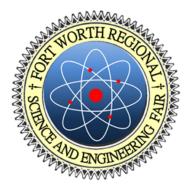
Project ID: 141899

School: Jerry Knight Stem Academy

Division: Junior

Category: Engineering: Electrical & Mechanical

Students: Jenna Woody, Emma Scott, Amal Hamdan



Fort Worth Area Psychological Association

1st Place: Don't trip; TRIPP! The Effect of a Virtual Reality Meditation Environment on

Stress and Mindfulness.

Project ID: 147093

School: Colleyville Heritage High School

Division: Senior

Category: Behavioral & Social Sciences

Students: Stefan Salaices

2nd Place: How Does Fear Change with Age?

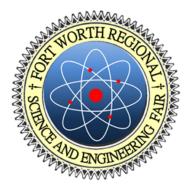
Project ID: 153701

School: Harmony Science Academy Carrollton-Middle School

Division: Junior

Category: Behavioral & Social Sciences

Students: Esther Fripp, Sara Curlee



Fort Worth Audubon Society Conservation Award

1st Place: Coral Reef Crisis: The Evaluation of Pentamerous Limestone with Various

Aquatic Plants and their Effects on Coral Reefs

Project ID: 144572

School: Colleyville Heritage High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Naomi Carleo

1st Place: The Mighty Mollusk an Under Water Warrior

Project ID: 154011

School: LIBERTY CHRISTIAN SCHOOL M S

Division: Junior

Category: Environmental Management & Sciences

Students: Austin Randolph

2nd Place: Water Filtration with Produce

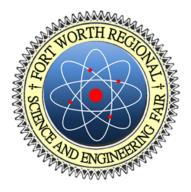
Project ID: 143147

School: Grapevine High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Jared Fletcher, Janie Vanzant, Tony Fernandez



Fort Worth Audubon Society Conservation Award

2nd Place: Fruitful Discoveries Part 2

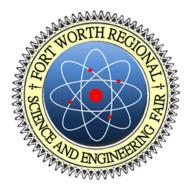
Project ID: 152129

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Division: Junior

Category: Earth & Planetary Sciences

Students: Shriya Menon



IEEE - Fort Worth Section

1st Place: The Point of a Parabola: Focusing Signals for a Better Wireless Network

Project ID: 138805

School: ST. ELIZABETH ANN SETON CATHOLIC MIDDLE SCHOOL

Division: Junior

Category: Physics & Astronomy

Students: Nathan Brinkley

1st Place: Material Detector: Detecting the Material of Items through Photoelectric,

Inductive, and Force Pressure Sensors

Project ID: 153630

School: The Oakridge School

Division: Senior

Category: Environmental Management & Sciences

Students: Eshan Singhal

2nd Place: Building a Better Battery: A Novel Implementation of Homemade, Low-cost

Graphene in a Supercapacitor Analyzing Efficiency and Real-World Application

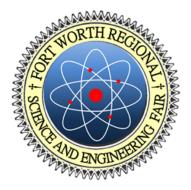
Project ID: 146717

School: Colleyville Heritage High School

Division: Senior

Category: Engineering: Materials & Bioengineering

Students: Augene Chung, Daniel Kim, Tyler Lane



IEEE - Fort Worth Section

2nd Place: Clash of the AI

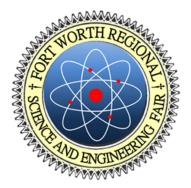
Project ID: 153999

School: HARMONY ACADEMY - EULESS MIDDLE SCHOOL

Division: Junior

Category: Mathematical Sciences

Students: Saanvi Sarda



Lemelson Early Inventor Prize

1st Place: Composting Your Way to a Better World

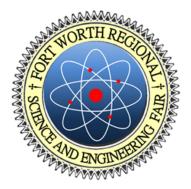
Project ID: 141340

School: Jerry Knight Stem Academy

Division: Junior

Category: Environmental Management & Sciences

Students: Sophia Westbrook, Oluwakemi Morohunfola



Lockheed Martin Aeronautics Company

1st Place: The Analysis of Chitosan in Reducing the Initial Burst Effect in Electrospun

Nanofiber-Based Drug Delivery Systems (DDS)

Project ID: 146041

School: Colleyville Heritage High School

Students: Sunehra Chowdhury

1st Place: Charging the Best Battery for a Better Future

Project ID: 153753

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Students: Keren Hernandez

2nd Place: Mask up or back up!

Project ID: 147227

School: LIBERTY CHRISTIAN SCHOOL M S

Students: Naya Salfiti

2nd Place: Pressure-Driven C-H Activation via Non-Bonding Interactions

Project ID: 147982

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Students: Carly Yang

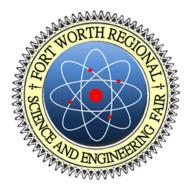
3rd Place: Developing a Free Energy Parameter Model for the Prediction and Mapping of

the Uptake of Hazardous Organic Pollutants by Plant Cuticle Membranes

Project ID: 148406

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Students: Jennifer Huang, Shrika Eddula



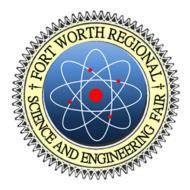
Lockheed Martin Aeronautics Company

3rd Place: Hydropower: Putting Water to Work

Project ID: 153427

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Students: Jordan Thomas



Lockheed Martin Leadership Association

1st Place: Using Post-Illumination Pupil Response as a Novel Biomarker for Parkinson's

Disease

Project ID: 148731

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Medicine & Health Sciences

Students: Allen Chau, Brianna Chan

1st Place: Comparative Evaluation of Salt Water Rinse with Cetylpyridinium Chloride

Against Oral Microbes

Project ID: 151691

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Division: Junior

Category: Microbiology

Students: Pavan Ahluwalia

2nd Place: Does wearing a mask in sports affect lung capacity?

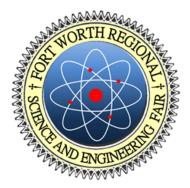
Project ID: 139061

School: ST. ELIZABETH ANN SETON CATHOLIC MIDDLE SCHOOL

Division: Junior

Category: Medicine & Health Sciences

Students: Patrick Kris, Nate Fabriga



Lockheed Martin Leadership Association

2nd Place: Don't trip; TRIPP! The Effect of a Virtual Reality Meditation Environment on

Stress and Mindfulness.

Project ID: 147093

School: Colleyville Heritage High School

Division: Senior

Category: Behavioral & Social Sciences

Students: Stefan Salaices

3rd Place: To Burn or Not To Burn

Project ID: 149430

School: LIBERTY CHRISTIAN SCHOOL M S

Division: Junior

Category: Medicine & Health Sciences

Students: Chloe Appling

3rd Place: FerroFilter: A novel one-step ferrofluid-based water filtration mechanism for

efficient removal of metals, microbes and microplastics

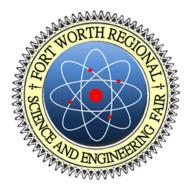
Project ID: 151511

School: Colleyville Heritage High School

Division: Senior

Category: Physics & Astronomy

Students: Ashwin Katta



Mu Alpha Theta

1st Place: Optical Character Recognition of Chemical Equations for Operation

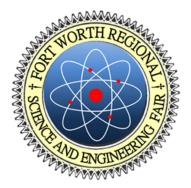
Project ID: 147409

School: Colleyville Heritage High School

Division: Senior

Category: Mathematical Sciences

Students: Gavin Casey



NASA Earth System Science Award

1st Place: Coral Reef Crisis: The Evaluation of Pentamerous Limestone with Various

Aquatic Plants and their Effects on Coral Reefs

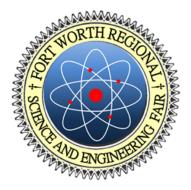
Project ID: 144572

School: Colleyville Heritage High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Naomi Carleo



National Oceanic & Atmospheric Administration

1st Place: The Construction and Assessment of a Reliable, Cost-Efficient, and

Biodegradable Covid-19 Mask

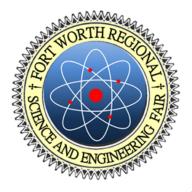
Project ID: 146465

School: Colleyville Heritage High School

Division: Senior

Category: Environmental Management & Sciences

Students: Garrett Adams



Office of Naval Research - U.S. Navy and U.S Marine Corps

1st Place: The Point of a Parabola: Focusing Signals for a Better Wireless Network

Project ID: 138805

School: ST. ELIZABETH ANN SETON CATHOLIC MIDDLE SCHOOL

Division: Junior

Category: Physics & Astronomy

Students: Nathan Brinkley

1st Place: The Effect of Methylprednisolone and D-methionine on Noise-induced Hearing

Loss

Project ID: 148691

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Medicine & Health Sciences

Students: Savannah Cheng

1st Place: Genetic Modification of Medicago sative to increase the Production of

Proanthocyanidins in Epidermal Tissues

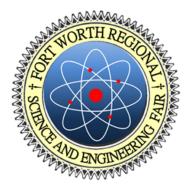
Project ID: 150770

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Plant Sciences

Students: Sai Sarnala



Office of Naval Research - U.S. Navy and U.S Marine Corps

1st Place: Material Detector: Detecting the Material of Items through Photoelectric,

Inductive, and Force Pressure Sensors

Project ID: 153630

School: The Oakridge School

Division: Senior

Category: Environmental Management & Sciences

Students: Eshan Singhal

1st Place: Enzyme-Catalyzed Reaction

Project ID: 154006

School: HARMONY ACADEMY - EULESS MIDDLE SCHOOL

Division: Junior

Category: Biochemistry, Cellular, & Molecular Biology

Students: Nora Naveen

1st Place: Positive vs negative pressure

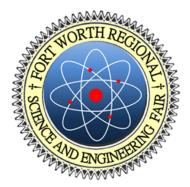
Project ID: 154151

School: NORTHSTAR MIDDLE SCHOOL

Division: Junior

Category: Physics & Astronomy

Students: Cameron Reid



Ricoh Sustainable Development Award

1st Place: Material Detector: Detecting the Material of Items through Photoelectric,

Inductive, and Force Pressure Sensors

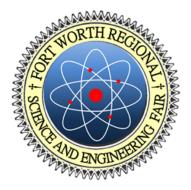
Project ID: 153630

School: The Oakridge School

Division: Senior

Category: Environmental Management & Sciences

Students: Eshan Singhal



Society of Allied Weight Engineers - Texas Chapter

1st Place: The Podium Rocket Fallacy?

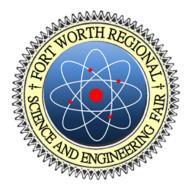
Project ID: 153823

School: NORTHSTAR HIGH SCHOOL

Division: Senior

Category: Physics & Astronomy

Students: Owen McGilberry



Society of Flight Test Engineers - North Texas Chapter

1st Place: The Cambers of Secrets

Project ID: 150531

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Division: Junior

Category: Engineering: Electrical & Mechanical

Students: Anya Usman

1st Alt: The Applications of Ground Effect Vehicles

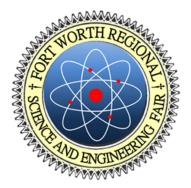
Project ID: 141899

School: Jerry Knight Stem Academy

Division: Junior

Category: Engineering: Electrical & Mechanical

Students: Jenna Woody, Emma Scott, Amal Hamdan



U.S. Agency for International Development

1st Place: Composting Your Way to a Better World

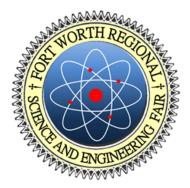
Project ID: 141340

School: Jerry Knight Stem Academy

Division: Junior

Category: Environmental Management & Sciences

Students: Sophia Westbrook, Oluwakemi Morohunfola



U.S. Stockholm Junior Water Prize

1st Place: Construction of a Water Purification Device Using Various Filtration Methods

Project ID: 144459

School: Colleyville Heritage High School

Division: Senior

Category: Environmental Management & Sciences

Students: Jakin Lee

2nd Place: FerroFilter: A novel one-step ferrofluid-based water filtration mechanism for

efficient removal of metals, microbes and microplastics

Project ID: 151511

School: Colleyville Heritage High School

Division: Senior

Category: Physics & Astronomy

Students: Ashwin Katta

3rd Place: Soak in the Savings: An Evaluation of Alternative Irrigation Methods with an

Economic Sufficiency Report of the Most Efficient

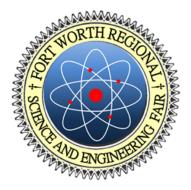
Project ID: 143683

School: Colleyville Heritage High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Aliyan Vidhani



U.S. Stockholm Junior Water Prize

1st Alt: Clean water is appealing: The Analysis of Citrus sinensis, Persea americana, and

Musa Peels as a Biocoagulant in Water Purification

Project ID: 146057

School: Colleyville Heritage High School

Division: Senior

Category: Plant Sciences

Students: Afrah Sulthar

2nd Alt: Water Filtration with Produce

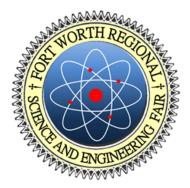
Project ID: 143147

School: Grapevine High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Jared Fletcher, Janie Vanzant, Tony Fernandez



US Air Force

1st Place: Constructing and analyzing the efficiency of an adhesive based triboelectric

nanogenerator

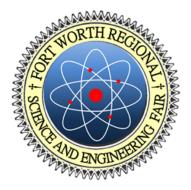
Project ID: 147178

School: Colleyville Heritage High School

Division: Senior

Category: Engineering: Materials & Bioengineering

Students: Moid Meghani



US Metric Association

1st Place: The Effect of Methylprednisolone and D-methionine on Noise-induced Hearing

Loss

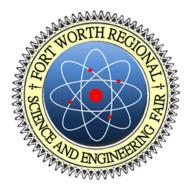
Project ID: 148691

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Medicine & Health Sciences

Students: Savannah Cheng



UTA College of Science

1st Place: The Analysis of Chitosan in Reducing the Initial Burst Effect in Electrospun

Nanofiber-Based Drug Delivery Systems (DDS)

Project ID: 146041

School: Colleyville Heritage High School

Division: Senior

Category: Engineering: Materials & Bioengineering

Students: Sunehra Chowdhury

1st Place: Comparative Evaluation of Salt Water Rinse with Cetylpyridinium Chloride

Against Oral Microbes

Project ID: 151691

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Division: Junior

Category: Microbiology

Students: Pavan Ahluwalia

2nd Place: Using Post-Illumination Pupil Response as a Novel Biomarker for Parkinson's

Disease

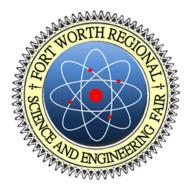
Project ID: 148731

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Medicine & Health Sciences

Students: Allen Chau, Brianna Chan



UTA College of Science

2nd Place: The Primacy and Recency Effects

Project ID: 153795

School: HARMONY ACADEMY - EULESS MIDDLE SCHOOL

Division: Junior

Category: Behavioral & Social Sciences

Students: Sumayyah Jilani

3rd Place: Molecular Dynamics Investigation of Poly [ADP-Ribose] Polymerase 1 Inhibitors

as Treatment for V762A Single-Nucleotide Polymorphism Correlated with Lung

and Ovarian Cancer

Project ID: 149256

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Biochemistry, Cellular, & Molecular Biology

Students: Neel Shanmugam

3rd Place: The Degradation of Polyethylene by Waxworms

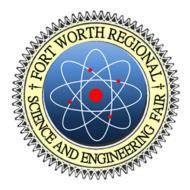
Project ID: 152273

School: Colleyville Middle School

Division: Junior

Category: Animal Sciences

Students: Aidan Loughran



UTA Provost Office

1st Place: The Analysis of Chitosan in Reducing the Initial Burst Effect in Electrospun

Nanofiber-Based Drug Delivery Systems (DDS)

Project ID: 146041

School: Colleyville Heritage High School

Division: Senior

Category: Engineering: Materials & Bioengineering

Students: Sunehra Chowdhury

1st Place: Comparative Evaluation of Salt Water Rinse with Cetylpyridinium Chloride

Against Oral Microbes

Project ID: 151691

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Division: Junior

Category: Microbiology

Students: Pavan Ahluwalia

2nd Place: Using Post-Illumination Pupil Response as a Novel Biomarker for Parkinson's

Disease

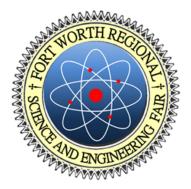
Project ID: 148731

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Medicine & Health Sciences

Students: Allen Chau, Brianna Chan



UTA Provost Office

2nd Place: The Primacy and Recency Effects

Project ID: 153795

School: HARMONY ACADEMY - EULESS MIDDLE SCHOOL

Division: Junior

Category: Behavioral & Social Sciences

Students: Sumayyah Jilani

3rd Place: Molecular Dynamics Investigation of Poly [ADP-Ribose] Polymerase 1 Inhibitors

as Treatment for V762A Single-Nucleotide Polymorphism Correlated with Lung

and Ovarian Cancer

Project ID: 149256

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Biochemistry, Cellular, & Molecular Biology

Students: Neel Shanmugam

3rd Place: The Degradation of Polyethylene by Waxworms

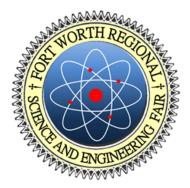
Project ID: 152273

School: Colleyville Middle School

Division: Junior

Category: Animal Sciences

Students: Aidan Loughran



Water Environment Association of Texas

1st Place: Construction of a Water Purification Device Using Various Filtration Methods

Project ID: 144459

School: Colleyville Heritage High School

Division: Senior

Category: Environmental Management & Sciences

Students: Jakin Lee

2nd Place: FerroFilter: A novel one-step ferrofluid-based water filtration mechanism for

efficient removal of metals, microbes and microplastics

Project ID: 151511

School: Colleyville Heritage High School

Division: Senior

Category: Physics & Astronomy

Students: Ashwin Katta

3rd Place: Soak in the Savings: An Evaluation of Alternative Irrigation Methods with an

Economic Sufficiency Report of the Most Efficient

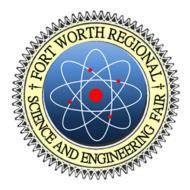
Project ID: 143683

School: Colleyville Heritage High School

Division: Senior

Category: Earth & Planetary Sciences

Students: Aliyan Vidhani



Water Environment Association of Texas

4th Place: The Mighty Mollusk an Under Water Warrior

Project ID: 154011

School: LIBERTY CHRISTIAN SCHOOL M S

Division: Junior

Category: Environmental Management & Sciences

Students: Austin Randolph

5th Place: Which Filtration Best Leads to Drinking Water

Project ID: 154030

School: HARMONY ACADEMY - EULESS MIDDLE SCHOOL

Division: Junior

Category: Environmental Management & Sciences

Students: Chahana Kharel

6th Place: Hydropower: Putting Water to Work

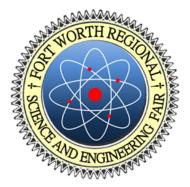
Project ID: 153427

School: HARMONY SCHOOL OF INNOVATION MIDDLE SCHOOL (FORT WORTH)

Division: Junior

Category: Engineering: Electrical & Mechanical

Students: Jordan Thomas



Water Environment Association of Texas

1st Alt: Aquatic Toxicity Abraham Model Correlations Between Aquatic Organisms

and Organic Solvents

Project ID: 148697

School: TEXAS ACADEMY OF MATHEMATICS AND SCIENCES H S

Division: Senior

Category: Animal Sciences

Students: Sophia Cai, Angelina Xu

2nd Alt: Does no-till or plow-based farming retain water better?

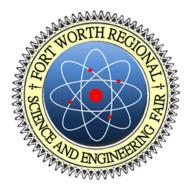
Project ID: 140244

School: ST. ELIZABETH ANN SETON CATHOLIC MIDDLE SCHOOL

Division: Junior

Category: Plant Sciences

Students: Isabel Durham



Yale Science and Engineering Association

1st Place: The Applications of Ground Effect Vehicles

Project ID: 141899

School: Jerry Knight Stem Academy

Division: Junior

Category: Engineering: Electrical & Mechanical

Students: Jenna Woody, Emma Scott, Amal Hamdan