

2026 Region VII Science & Engineering Fair Category Awards- Senior Division

Animal Sciences

4th	Species-Specific Effects of Light Pollution on Bird Vocalization	Alexander Murphey	Baton Rouge Magnet
3rd	Testing the Effects of Sunscreen on Tigriopus Californicus	Nora Broadhurst Williams	Baton Rouge Magnet
2nd	Axolotl Regeneration and the effects of Palladin during Axolotl Regeneration	Foster Lambert	Episcopal School of Baton Rouge
1st	Do Bluebird Subspecies Differ in Color? A Spectrophotometric Comparison Across North and Central America	Lauren Bradford	Episcopal School of Baton Rouge

Behavioral and Social Sciences

4th	The Effect of Implicit Gender Bias and Perceived Credibility on Job Choice	Vivienne LeBlanc	St. Joseph's Academy
3rd	Society and Pollution: Do Social Factors Affect Air Pollution in Louisiana?	Julian Kim	Baton Rouge Magnet
2nd	Louisiana State University's Students Perception of Crime Rate Versus the Reality of Crime Rate	Annie Walters	St. Joseph's Academy
1st	Exploring the Role of Glutamatergic Neurons in Stress and Learning	Maeve Dolan	Episcopal School of Baton Rouge

Biochemistry

3rd	The Effect of Decreasing Intracellular Iron Storage in MCF-7 Cell Cytotoxicity	Claire Wicker	St. Joseph's Academy
2nd	Effects of Household Bioactive Compounds on Yeast Fermentation Kinetics	Ibrahim Khan	Baton Rouge Magnet
1st	Crawfish Shells as Biowaste Electrolyte Enhancers: Investigating Chitin-Based Conductivity in Zinc"Copper Batteries	Nathen Pia	Baton Rouge Magnet

Biomedical and Health Sciences

4th	The Utility of Breath Acetone Analysis in Post-Operative Bariatric Surgery Patients as a Marker for Hydration Status and a Predictor of Weight Loss Success	Kate Saunders	St. Joseph's Academy
3rd	The Influence of Onset Age of Alcohol Consumption and Demographic Variables on Brain Morphology as revealed by MRI analysis.Â	Mary Roberts	St. Joseph's Academy
2nd	CT Imaging and 3D Modeling for Microscopic and Macroscopic Samples	Aiden Grassmann	Episcopal School of Baton Rouge
1st	Electrolytes and Energy Drinks: Are They Hydrating or Hype??	Aubrey Sanders	Baton Rouge Magnet
1st	The Influence of the Genetic Type of Hereditary Nephritis on the Severity of the Manifestations	Anadele Lagarde	St. Joseph's Academy

Biomedical Engineering

4th	Development and Functional Evaluation of an Open-Source Assistive Ergonomic Gardening Tool for Enhanced Accessibility in Soil-Based Planting	Helen Hannaman	St. Joseph's Academy
3rd	The Smart Lid: A Multi-Sensor Football Helmet for Real-Time Biometric and Impact Monitoring	Shrey Shah	Dutchtown
2nd	Fabrication and Preliminary Testing of a vascular graft prototype	Michael Zhang	Episcopal School of Baton Rouge
1st	Characterization of Ionic Flow in Micro- and Nano-Channels in the Development of Nanofluidic Sensors for Gene Sequencing and Other Applications	Kunaal Dey	Baton Rouge Magnet

Cellular and Molecular Biology				
4th	Investigating the Link Between Extended Lifespan and Viral Resistance in C. elegans		Fionna Lu	Baton Rouge Magnet
3rd	Investigating Oxidative Stress in C. Elegans in Response to ROS/Free Radical Particle Exposure		David Dickerson	Episcopal School of Baton Rouge
2nd	Finding Ribosome Biogenesis Factors in Drosophila Melanogaster		Ava Thevenot	St. Joseph's Academy
1st	The functional capability of neutrophils isolated from patients with a dysregulated immune system		Adelaide O'Neal	Baton Rouge Magnet
Chemistry				
4th	A Comparative Analysis of Ignition Effects on Wooden Studs, Untreated Wood, and Painted Wood: Evaluating Visual Condition, Surface Hardness, and Char Depth		Alyse Arceneaux	St. Joseph's Academy
3rd	How does changing the composition of Cu/ZnO/Al2O3(CZA) catalysts influence CO2 Conversion and methanol selectivity during CO2 Hydrogenation?		Rik Chigurupati	Episcopal School of Baton Rouge
2nd	The Effects Sugar Content and pH Levels of Drinks Have on Tooth Decay		Lucy O'Brien	St. Joseph's Academy
1st	Development of Novel Semiconducting Heteroanionic Cerium Selenohalides		Darren Weng	Episcopal School of Baton Rouge
Computational and Biology Bioinformatics				
3rd	Examining variation in metabolic flux of a generalist necrotrophicpathogen (Botrytis cinerea)		Larissa Boldor	Baton Rouge Magnet
2nd	The Influence of the Quantity of Comorbidities on the Duration of Inpatient Stay		Aisleigh Dufrene	St. Joseph's Academy
1st	Computer Based Drug Screening Targeting Cancer Cell Glycolysis		Christine Kim	Baton Rouge Magnet
Earth & Enviornmental Science				
4th	A Hybrid Data-Driven Framework for Seasonal Prediction of Accumulated Cyclone Energy along the U.S. Gulf Coast		Kareem Elseifi	Baton Rouge Magnet
3rd	Does Heat and Brand Affect the Quantity of Microplastics in Bottled Water?		Salena Gouri	Baton Rouge Magnet
2nd	Testing the absorption of lead (pb) in sweet potato soil		Grace Waguespack	Episcopal School of Baton Rouge
1st	Physical and Numerical Modeling of the Effects of Vegetation and Mangrove Trees on River Delta Erosion		Elizabeth Xu	Baton Rouge Magnet
Embedded Systems				
3rd	The Effect of Altitude on Air Temperature and Humidity		Ellie Blake	St. Joseph's Academy
2nd	The Effects of Automated Watering Systems on Plant Growth and Health		Oscar Liu	Baton Rouge Magnet
1st	AI Based Computer Vision for Visual Assistance		Tyler Huynh	Baton Rouge Magnet
Energy				
4th	The Effect of Renewable Energy Sources on the Operation and Efficiency of Automated Irrigation		Aariell Martin	St. Joseph's Academy
3rd	Optimizing a Solar Oven: The Effect of Reflector Angle and Glazing Material on Internal Temperature		Saptarshi Hati	Baton Rouge Magnet
2nd	The Effect of Different Light Sources on Solar Panel Performance		Kyle Tran	Baton Rouge Magnet
1st	Self-Healing Concrete With Microbially Induced Carbonate Precipitation		Airi Homma	Episcopal School of Baton Rouge
Engineering Technology				

4th	Twister Science	Herkirat Bhinder	Baton Rouge Magnet
3rd	Testing for the strongest bridge design	Raylan Muller	Baton Rouge Magnet
2nd	Analyzing the Impact of Aerodynamic Shape on Drag in Model Cars	Joaquin Johnson	Baton Rouge Magnet
1st	The Effect of Angular Orientation and Shading Conditions on Photovoltaic Performance	Loghan Gustin	St. Joseph's Academy
Enviornmental Engineering			
3rd	Monitoring Drainage Efficiency to Reduce Urban Flooding	Camille Legendre	Baton Rouge Magnet
2nd	Attractants for Mosquitoes in Southern Louisiana	Liam McPeak	Baton Rouge Magnet
1st	The Effect of Barometric Pressure on Ultraviolet Radiation in the Stratospheric Layer of the Atmosphere	Marguerite Uzee	St. Joseph's Academy
Materials Science			
4th	The Correlation between Price and Copper, Hydrogen, Calcium and Other Elemental Intensities in Malachite	Lucy Wood	St. Joseph's Academy
3rd	Development of Biofertilizers Using Agricultural Processing Byproduct-Derived Materials	Richa Subramaniam	Baton Rouge Magnet
2nd	Characterizing TiN Coatings Deposited via Reactive Plasma Spray	Timothy Namikas	Episcopal School of Baton Rouge
1st	Closing the Loop: Feasibility of At-Home Plastic Recycling for FDM and Its Effect on a Plastic’s Lifespan	Jacob Caillouet	Baton Rouge Magnet
Math			
1st	Use of Dual VQE to Compute Lower Bound on Ground State Energy of Carbon-12 Nucleus	Rishabh Gala	Baton Rouge Magnet
Microbiology			
3rd	The Effects of the Five Second Rule on Bacteria and Microorganisms	Seham Assad	Baton Rouge Magnet
2nd	The Effect of Public and Private Drinking Fountains on the Prevalence and Spread of Escherichia coli Bacterium	Cheri Nguyen	St. Joseph's Academy
1st	Temperature-Driven Shifts Toward Pathogenic Vibrio in Gulf Oysters: Public Health Implications and a Novel Mitigation Strategy	Abigail Qi	Baton Rouge Magnet
Physics & Astronomy			
4th	The Effect of Magnetic Fields on Subatomic Particles	Rylan LeJeune	St. Joseph's Academy
3rd	Testing for an Alternative to Lead for Radiation Protection	Scarlett Kirsch	St. Joseph's Academy
2nd	Determining Entanglement Phases in an Open Quantum Circuit	Adhrit Maiti	Baton Rouge Magnet
1st	Thermalization Gaps in Quantum Plasmonic Metacrystals	Aadi Singh, Ziang Zhuang	Baton Rouge Magnet
Plant Sciences			
4th	The Effect of Natural Cosmetic Humectants on the Growth and Maturation of Tagetes patula	Amelia Chauvin	St. Joseph's Academy
3rd	Thirsty for Answers: What Does Your Plan Want to Drink?	Austin Vela-Vick	Baton Rouge Magnet
2nd	Virulence Diversity and Fungicide	Jacob Hutchinson Johnson	Episcopal School of Baton Rouge
1st	Battle of the Biomolecular Methods: Multiplex PCR and RFLP in Genetic Detection Accuracy	Jaanvi Singh	Baton Rouge Magnet

Robotics and Intelligent Machines			
4th	Formation Control of Multi-Agent Systems Using Reinforcement Learning	Kaylee Meng	Baton Rouge Magnet
3rd	Differential Kinematics Approach for 7 Degree-of-Freedom Redundant Manipulators through Lie Theory	Brian Bui, Ryan Shen	Baton Rouge Magnet
2nd	Benchmarking Diagnostic Utility: An Evaluation of Five AI Models for Chest X-Ray Classification	Kenneth Michel	Baton Rouge Magnet
1st	Determining the Effectiveness of AI Object Recognition in an Indoor Residential Environment Intended for Assistive Robotics	Whitney Nachman	St. Joseph's Academy
Systems Software			
4th	Experiencing Other Languages from a Python Perspective	Alexander Wan	Baton Rouge Magnet
3rd	The Effect of Parameterization on Speed and Accuracy of Language Models	Madelyn Tessier	St. Joseph's Academy
2nd	Measuring and Assessing Data from High Altitude Balloons	Sofia Ceruti	St. Joseph's Academy
1st	A Probabilistic Computational Framework for Learning Persistence in Heatwave Prediction	Sofia Zhu	Baton Rouge Magnet
Technology Enhances the Arts			
3rd	Analysis of Composition of Musical Chords on Sound Frequency Patterns	Isaac Bryant	Baton Rouge Magnet
2nd	We the People: An Empirical Analysis of the U.S. Political Climate	Brinkley Bennett	St. Joseph's Academy
1st	Shazam for Singing: Building a Music Recognition App that can Process Humming	Berklee Zanders	Baton Rouge Magnet
Translational Medical Science			
4th	The Effects of Cannabinoids on Triple Negative Breast Cancer Cells	Angelina Nguyen	St. Joseph's Academy
3rd	Effect of Taurine on Traumatic Brain Injury Blood Brain Barrier Breakdown in Mus musculus	Rebecca Berlin	St. Joseph's Academy
2nd	Evaluation of a Near-Infrared Boron Dipyrromethene (BODIPY)-Based Theranostic Agent for Colorectal Adenocarcinoma	Dev Iyer	Baton Rouge Magnet
1st	Gender-Based Differences in Cutting Mechanics and Anterior Cruciate Ligament Injury Risk	Zach Hu	Episcopal School of Baton Rouge

2026 Region VII Science & Engineering Fair Special Awards- Senior Division

Naval Science Award
Foster Lambert - Episcopal School of Baton Rouge
Airi Homma - Episcopal School of Baton Rouge
Aisleigh Dufrene - St. Joseph's Academy

American Psychological Association Award

Maeve Dolan - Episcopal School of Baton Rouge

Regeneron Biomedical Science Award

Michael Zhang - Episcopal School of Baton Rouge

United States Air Force Award

Sydney Naquin - St. Joseph's Academy

Abigail Qi - Baton Rouge Magnet

Sofia Zhu - Baton Rouge Magnet

Jacob Hutchinson Johnson - Episcopal School of Baton Rouge

Yale Science & Engineering Association Award

Whitney Nachman - St. Joseph's Academy

Association for Women Geoscientists Award

Elizabeth Xu - Baton Rouge Magnet

Citadel Securities Innovation Prize

Whitney Nachman - St. Joseph's Academy

ISEF Nominees

Berklee Zanders - Baton Rouge Magnet

Sofia Zhu - Baton Rouge Magnet

Brinklet Bennett - St. Joseph's Academy

2nd Place Overall

Sofia Zhu - Baton Rouge Magnet

1st Place Overall

Berklee Zanders - Baton Rouge Magnet

Top School- Highest Cumulative Score Overall

Episcopal School of Baton Rouge