

Louisiana State Science & Engineering Fair 2022

Junior Division

Overall Award Winners

First Place Overall

Jamal Beverly, BEH-161

Lake Forest Charter School – New Orleans, LA

Second Place Overall

Julia Braud, PL-139

First Baptist Church School – Shreveport, LA

Overall School

Glasgow Middle School – Baton Rouge, LA



Louisiana State Science & Engineering Fair 2022 Junior Division

Broadcom Masters

Ayaan Abbasi	Development of a Video Game to Aid in Learning and	FK White Middle School
	Comparison of Results to Quizlet	
Brynnan Self	The Effect of Shampoo with Different Amounts of	Sherwood Middle Academic Magnet
	Sulfates on Semi-Permanent Red Hair Dye	
Ella Higginbotham	What do earthworms 'dig'?	Winnfield Middle School
Ethan Wang	Development of a Video Game to Aid in Learning and	FK White Middle School
	Comparison of Results to Quizlet	
Jamal Beverly	Sooner Vs. Later: Testing the accuracy of eyewitness	Lake Forest Charter School
	identifications	
JAVIEN HENDERSON	Multi-shell Nanoparticles for Photothermal Cancer	Kenilworth Science and Technology
	Therapy	
Jessica Anderson	Upside Down Gardening	Lafayette Christian Academy
Julia Braud	Eradicating Lespedeza: Is There A Better Way?	First Baptist Church School
Julia Jung	Cardiac Segmentation in Short-Axis MRI Using a	Glasgow Middle School
	Convolutional Neural Network	
Karoline Lee	Let It Grow	Providence Classical Academy
Keira Carmichael	Does Gender Modify the Effect of Hypertension on	Glasgow Middle School
	Amyloid-Beta?	
Maya Trutschl	Microcontroller-Driven Remote HVAC Monitoring System	Caddo Parish Middle Magnet School
	for a Greener Planet	
Paul Carmichael	Modeling the Effects of Future Covid-19 Variants Using R	Glasgow Middle School
Rylee McField	Lemongrass: The Cure to the Future	Lake Forest Charter School
Sarah Schmeeckle	Rainbow Connection	St. Jude the Apostle
Sidonie Bayard	The Effect of Liquid Type on How Long Cut Flowers	Sherwood Middle Academic Magnet
	Survive	
Silas Sorensen	Does the Tightness of the Coil Affect the Functionality of	Glasgow Middle School
	the Radio?	
William Mumford	How Hot is That Pepper?	St. Jude the Apostle

Lemelson Early Inventor Award

Maya Trutschl	Microcontroller-Driven Remote HVAC Monitoring System	Caddo Parish Middle Magnet School
	for a Greener Planet	

Naval Science Award

Jamal Beverly	Sooner Vs. Later: Testing the accuracy of eyewitness	Lake Forest Charter School
	identifications	
Julia Braud	Eradicating Lespedeza: Is There A Better Way?	First Baptist Church School
Silas Sorensen	Does the Tightness of the Coil Affect the Functionality of	Glasgow Middle School
	the Radio?	



Junior Division March 22, 2022

Animal Sciences

Fourth Place			
Braden Nosser	ANM-142	SHAKE!	Holy Cross School
Third Place			
Breanna Zhu	ANM-025	Bird Flight	Glasgow Middle School
Second Place			
Gracie Moore	ANM-131	Do dogs have a favorite color?	Winnfield Middle School
First Place			
Ella Higginbotham	ANM-129	What do earthworms 'dig'?	Winnfield Middle School

LSEF Junior Division

Behavioral and Social Sciences

BEH-109	Pet Pressure	Winnfield Middle School
BEH-029	Rainbow Connection	St. Jude the Apostle
BEH-028	What Color is This?	Prairieville Middle School
BEH-161	Sooner Vs. Later: Testing the accuracy of eyewitness	Lake Forest Charter School
	identifications	
	BEH-029 BEH-028	BEH-029 Rainbow Connection BEH-028 What Color is This?

LSEF Junior Division

Biochemistry

Fourth Place			
Grace Courville	BCM-005	The Science of Sensitive Skin Care	Homeschool-RiceField Christian Academy
Third Place			
luke bordelon	BCM-121	how does fungus react under different conditions?	FK White Middle School
Chrisanth Marapalli	BCM-121	how does fungus react under different conditions?	FK White Middle School
Second Place			
Jaymon Williams	BCM-090	How Does the pH Level Affect the Digestion of Protein?	John Curtis Christian
First Place			
Larissa Boldor	BCM-026	Effects of Temperature and Time Exposure During Heat	Glasgow Middle School
		Shock on Plasmid Uptake in Non-Pathogenic E. coli Bacteria	



Biomedical and Health Sciences

Fourth Place			
Savannah Lu	BMH-032	Does the amount of screen time affect vision?	Sherwood Middle Academic Magnet
Third Diago			
Third Place			
Londyn Richardson	BMH-031	The Effect of Different Masks on the Amount of Bacteria	Sherwood Middle Academic Magnet
Second Place			
Brittney Tate	BMH-099	How Do Your Favorite Sugary Drinks And Toothpaste	Parks Middle School
		Brands Affect Your Teeth	
<u>First Place</u>			
Ozma Baurick	BMH-104	Checking Out Germs!	International School Of Louisiana

LSEF Junior Division

Biomedical Engineering

Fourth Place			
Rayna Smith	BME-008	Muscles on the ISS	SP Arnett
Third Place			
Conner Istre	BME-016	Fingerprint Patterns	St. Margaret Catholic School
Second Place			
JAVIEN HENDERSON	BME-030	Multi-shell Nanoparticles for Photothermal Cancer Therapy	Kenilworth Science and Technology
First Place			
Solomon Richardson	BME-105	Testing Durability of Prosthetics made with Different Matierial	Holy Cross School

LSEF Junior Division

Cellular and Molecular Biology

Fourth Place			
Courtnee Gedward	CLB-118	What are Mirror Twins and How are they different from	St. Martinville Jr. High School
Kayden Gedward	CLB-118	Fraternal Twins? What are Mirror Twins and How are they different from Fraternal Twins?	St. Martinville Jr. High School
Third Place			
Kingston Mayfield	CLB-126	What is Blood and what Is it made of	Sunset middle school
Second Place			
Cecily Lu	CLB-036	Milk's Effect on Nematodes	Glasgow Middle School
First Place			
Sarah Ebenezer	CLB-035	Use of Skin Organoids to Study Melanoma: Potential Effects of Blueberry	Glasgow Middle School



Chemistry

Fourth Place			
Elianna Prince	CHM-159	How the PH of Water Affects the rate of Copper Corrosion	Lake Forest Charter School
Third Place			
William Mumford	CHM-038	How Hot is That Pepper?	St. Jude the Apostle
Second Place			
Tristan Alonso	CHM-138	Water Electrolysis	Our Lady of Lourdes
First Place			
Brynnan Self	CHM-037	The Effect of Shampoo with Different Amounts of Sulfates on Semi-Permanent Red Hair Dye	Sherwood Middle Academic Magnet

LSEF Junior Division

Computational Biology and Bioinformatics

Second Place			
Irianna Webb	CBB-033	Can Virtual Reality Affect A Human's Body Temperature	Kenilworth Science and Technology
First Place			
Paul Carmichael	CBB-034	Modeling the Effects of Future Covid-19 Variants Using R	Glasgow Middle School

LSEF Junior Division

Earth and Environmental Sciences

Fourth Place			
Audrey Malinski	EAE-069	What is a bee's favorite color	St. Peter's Catholic School
Third Place			
Claire England	EAE-039	The Effects of Annual Rainfall on the pH Level of Soil	Sherwood Middle Academic Magnet
Second Place			
Timothy Namikas	EAE-144	An Investigation of the Ability of Riparian Buffers to Reduce Pollution at the LSU University Lakes	Glasgow Middle School
First Place			
Dinah Smith	EAE-172	Does the number of organisms in water affect the water quality before and after purification?	Lake Forest Charter School



Embedded Systems

Fourth Place			
Gabrielle Nguyen	EMB-166	Passing As a Password	Lake Forest Charter School
Third Place			
Emily Cabrera	EMB-098	What Materials Block an RFID Signal?	John Curtis Christian
Second Place			
Maya Trutschl	EMB-128	Microcontroller-Driven Remote HVAC Monitoring System for a Greener Planet	Caddo Parish Middle Magnet School
First Place			
Silas Sorensen	EMB-040	Does the Tightness of the Coil Affect the Functionality of the Radio?	Glasgow Middle School

LSEF Junior Division

Energy: Sustainable Materials & Design

Fourth Place			
Jacob Istre	ENR-014	Light Emission	St. Margaret Catholic School
Third Place			
Joaquin Torres	ENR-047	How can I make a powerful coin battery for natural disasters and which electrolyte solution will work the best?	Baton Rouge International School
Second Place			
Emily Grace Adams	ENR-107	Is the Gas Worth the Cash?	Winnfield Middle School
First Place			
SHREY SHAH	ENR-046	Does Dam Height Matter	Dutchtown Middle School

LSEF Junior Division

Engineering Technology: Statics & Dynamics

alex Mathis	ENG-013	How To Build a Cheap Drone	St. Margaret Catholic Schoo
Scarlet Reeves	ENG-002	Cat Warmet	St. Margaret Catholic Schoo
Second Place			
Maverick Hassenboehler ENG-094		What Type of Bridge Truss is the Strongest	John Curtis Christiar
First Place			
Sawyer Barron	ENG-092	Do Squirrels Eat Your Plants	John Curtis Christiar



Environmental Engineering

Fourth Place	ENV-175	Custoinable Displactice: Mataviel Duwability	Lake Forest Charter School
Andy Hoang	LINV-175	Sustainable Bioplastics: Material Durability	Lake Forest Charter School
Third Place			
Eluzai De La Paz	ENV-042	Salinity Harms Duckweed	Kenilworth Science and Technology
Enlai De La Paz	ENV-042	Salinity Harms Duckweed	Kenilworth Science and Technology
Second Place			
Lathan Johnson	ENV-001	The Last Air Bender	Natchitoches Junior High
First Place			
Laurel Williams	ENV-043	The Effect of Wood Types on Moisture Levels	Sherwood Middle Academic Magnet

LSEF Junior Division

Materials Science

Fourth Place			
Maggie Vanchiere	MS-146	At the Speed of Water	St. John Berchmans Catholic School
Third Place			
Alayna Greco	MS-125	Which Cup Will keep the Liquid the Warmest?	Youree Drive Middle School
Second Place			
Kashvi Kumar	MS-053	Acoustic Insulation	Glasgow Middle School
First Place			
Grace Ding	MS-052	What is the relationship between moisture and the strength of balsa wood?	Glasgow Middle School

LSEF Junior Division

Mathematics

Second Place			
Janie Elliott	MA-048	Jenga: How High Can You Go?	St. Jude the Apostle
First Place			
Rishabh Gala	MA-049	Fast Primality Testing	Glasgow Middle School
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Microbiology

Fourth Place			
Britney Nguyen	MCR-167	Hydrating Vs. Salicylic Acid Cleanser: Which Cleanser is More Effective in Killing Bacteria?	Lake Forest Charter School
Third Place			
Joanna Fang	MCR-050	The Effect Of Different Cleaners on the Amount of Bacteria on Public Tables	Sherwood Middle Academic Magnet
Second Place			
Julianna Tan	MCR-086	What You Can't See Can Hurt You (Food Safety with Hyperspectral Imaging)	St. Frederick High School
First Place			
Abigail Qi	MCR-051	How do the populations of vibrio respond to Bdellovibrio and like organisms?	Glasgow Middle School

LSEF Junior Division

Physics and Astronomy

Fourth Place			
Kullen Mitchell	PHA-022	Does Ball Size Really Matter?	St. Margaret Catholic School
Third Place			
Judah Fastring	PHA-134	Stretchy Springs Measure Things	Little Oak Middle School
Second Place			
Bradie Eppinette	PHA-101	Choose Your Stride!	St. Frederick High School
First Place			
Caleb Gosserand	PHA-055	The Effect of Pressure Due to Gas Temperatures	Sherwood Middle Academic Magnet

LSEF Junior Division

Plant Sciences

Fourth Place			
Jessica Anderson	PL-076	Upside Down Gardening	Lafayette Christian Academy
Third Place			
Rylee McField	PL-170	Lemongrass: The Cure to the Future	Lake Forest Charter School
Second Place			
Karoline Lee	PL-145	Let It Grow	Providence Classical Academy
First Place			
Julia Braud	PL-139	Eradicating Lespedeza: Is There A Better Way?	First Baptist Church School



Robotics and Intelligent Machines

Fourth Place

Jaelyn Bergeron	RO-116	How are Robots used in the Waste Management Industry?	St. Martinville Jr. High School
Kenadie Broussard	RO-116	How are Robots used in the Waste Management Industry?	St. Martinville Jr. High School
Third Place			
Xagen Mclaughlin	RO-059	AI Learning	Kenilworth Science and Technology
Second Place			
Robert McCauley	RO-108	Is it ripe yet?	FK White Middle School
First Place			
Kaya Arnaudov	RO-062	StudyBuddies	Glasgow Middle School
Tia Seay	RO-062	StudyBuddies	Glasgow Middle School
Mya Thompson	RO-062	StudyBuddies	Glasgow Middle School

LSEF Junior Division

Systems Software

Fourth Place			
Nathaniel Young	SSO-150	A Comparison of Natchitoches Parish Students' Face-to-face and Virtual Learning Experiences	NSU Middle Lab
Third Place			
Kaylee Zhang	SSO-006	The Security of Cryptographic Transactions	Bishop Noland Episcopal Day School
Second Place			
Ayaan Abbasi	SSO-096	Development of a Video Game to Aid in Learning and Comparison of Results to Ouizlet	FK White Middle School
Ethan Wang	SSO-096	Development of a Video Game to Aid in Learning and Comparison of Results to Quizlet	FK White Middle School
First Place			
Julia Jung	SSO-064	Cardiac Segmentation in Short-Axis MRI Using a Convolutional Neural Network	Glasgow Middle School

LSEF Junior Division

Translational Medical Science

Second Place			
Keira Carmichael	TMS-065	Does Gender Modify the Effect of Hypertension on Amyloid-Beta?	Glasgow Middle School
First Place			
Dev Iyer	TMS-066	INVESTIGATING THE ANTIBACTERIAL PROPERTIES OF HOLY BASIL ON STAPHYLOCOCCUS AUREUS	Glasgow Middle School