

## **LRSEF- Junior/Middle School Category Awards - March 7, 2020 page 1**

### **Animal Sciences**

#### **3rd Place**

Megan Ising - Saint Albert the Great School  
The Effect of Location on the Eating Habits of Birds

#### **2nd Place**

Jack English - Saint Francis of Assisi, Louisville  
Urbanized Areas: Do They Cause More Stress in Deer?

#### **1st Place**

Brody Peters - Saint Francis of Assisi, Louisville  
As Safe as they Say? The Effect of SLSA on Mussel Filtration

### **Behavioral and Social Sciences**

#### **3rd Place**

Lauren Ford - Carrithers Middle School  
Memory Chunks

#### **2nd Place**

Lucy Doyle - Saint Francis of Assisi, Louisville  
The Link Between Bullying, Anxiety, and Childhood Trauma

#### **1st Place**

Annemarie Murr - Saint Francis of Assisi, Louisville  
Delicious but Immoral? Food Trace Influences Taste

### **Biochemistry**

#### **3rd Place**

Henry Peters - Saint Francis of Assisi, Louisville  
The Impact of Air Fresheners on Ascorbic Acid

#### **2nd Place**

Ellery Reynolds - Saint Francis of Assisi, Louisville  
Does inhaling air fresheners affect DNA integrity

#### **1st Place**

Margaret Beatty - Saint Francis of Assisi, Louisville  
Kentucky Native Plants: Agents Against Metastasis

## **LRSEF- Junior/Middle School Category Awards - March 7, 2020 page 2**

### **Biomedical and Health Sciences**

#### **3rd Place**

Abigail Derege - Newburg Middle School  
Which Lotion Has the Best Moisture?

#### **2nd Place**

Leah Niemann - Saint Francis of Assisi, Louisville  
Exploring Neurotoxin Shed in Child Products

#### **1st Place**

Chloe Nunn - Saint Francis of Assisi, Louisville  
Screen Light Poison: Does Digital Screen Blue Light Impact Health?

### **Biomedical Engineering**

#### **2nd Place**

Laura Petruska - Saint Francis of Assisi, Louisville  
Establishing PC12 Cells as a Model to Observe Stimulated Axon Growth

#### **1st Place**

George Bryant - Saint Francis of Assisi, Louisville  
Engineering a Novel Alert System for Wound Monitoring

### **Cellular and Molecular Biology**

#### **3rd Place**

Simon Petruska - Saint Francis of Assisi, Louisville  
Exploring protein similarities across species using anti-bodies

#### **2nd Place**

Katie Quinn - Saint Francis of Assisi, Louisville  
Exploring the Cause of Atrazine's Impact on the Nervous System

#### **1st Place**

Emerson Wyatt - Saint Francis of Assisi, Louisville  
Hyssop: a Kentucky Native Cancer Treatment

### **Chemistry**

#### **3rd Place**

Darby Lenning - Saint Francis of Assisi, Louisville  
Exploring CBD Extraction Methods

#### **2nd Place**

ELI Oetken - Saint Francis of Assisi, Louisville  
making foam glass from natural resources

#### **1st Place**

Liam Amick - Saint Francis of Assisi, Louisville  
Wastewater Remediation Using Chitin Coagulation

## **LRSEF- Junior/Middle School Category Awards - March 7, 2020 page 3**

### **Computational Biology and Bioinformatics**

#### **2nd Place**

Michael Schoenbachler - Saint Francis of Assisi, Louisville  
Alternative Splicing in Injured Murine Neurons

#### **1st Place**

Vedha Balamurugan - North Oldham Middle School  
Anti-diabetic effect of bitter tasty plant products on type 2 diabetic children: Importance of human neglected bitter taste

### **Earth and Environmental Science**

#### **3rd Place**

Amy Hunley - Homeschool  
Eco-Deadly!

#### **2nd Place**

Samuel Gurevich, Adam Hayat - Montessori School of Louisville  
The Beef Burger Versus the Impossible Burger

#### **1st Place**

Drew Ashley - Saint Francis of Assisi, Louisville  
Exploring Vehicle In-Cabin Air Pollution

### **Embedded Systems**

#### **3rd Place**

Cole Sanderfer - Saint Francis of Assisi, Louisville  
Anti-Slide: A Device to Detect Black Ice

#### **2nd Place**

Louie Murr - Saint Francis of Assisi, Louisville  
Scald Alert: A Device to Prevent Burns

#### **1st Place**

Fahmeeda Mohammad - Nur Islamic School of Louisville  
Voice Recognition Modules

### **Energy: Sustainable Materials and Design**

#### **3rd Place**

Frances Fendig - Saint Francis of Assisi, Louisville  
Ethanol Production from Used Coffee Grounds

#### **2nd Place**

Kylee Bratcher - Carrithers Middle School  
Guardian of the Assets

#### **1st Place**

Shazia Shaik, Amina Albarqawi - Nur Islamic School of Louisville  
Living Plant Battery

## **LRSEF- Junior/Middle School Category Awards - March 7, 2020 page 4**

### **Engineering Mechanics**

#### **3rd Place**

Jesse Dziatkowski - Carrithers Middle School  
Super Ball Mania

#### **2nd Place**

Philip Duvall - Montessori School of Louisville  
Efficiency of an Electric Car

#### **1st Place**

Nathaniel Shields - Saint Francis of Assisi, Louisville  
Exploring Hurricane Damage on Structures with Construction

### **Environmental Engineering**

#### **3rd Place**

Rhyse Johnston - Saint Francis of Assisi, Louisville  
Vapor Encroachment Condition as a Potential Health Threat

#### **2nd Place**

Jordan Balsamo - Saint Francis of Assisi, Louisville  
Exploring Dye Remediation with Activated Charcoal

#### **1st Place**

Josie Dunn - Saint Francis of Assisi, Louisville  
Can Asian Carp Fish Scales Remove Waste Dyes?

### **Materials Science**

#### **3rd Place**

Isaac Stroud - Saint Francis of Assisi, Louisville  
Creating Fire Retardant Hydrogels

#### **2nd Place**

Oliver Carmack - Saint Francis of Assisi, Louisville  
Improving Rigidity in Bioplastics

#### **1st Place**

Sophie Fabing - Saint Francis of Assisi, Louisville  
Better Bags: Creating New Hydrophobic Coatings for Paper Bags

### **Mathematics**

#### **2nd Place**

William Martin - Saint Francis of Assisi, Louisville  
Phi in astronomical distances

#### **1st Place**

Jack Mulvihill - Saint Francis of Assisi, Louisville  
Fractal Dimension and Flooding in US Rivers

## **LRSEF- Junior/Middle School Category Awards - March 7, 2020 page 5**

### **Microbiology**

#### **3rd Place**

Olivia Thomas - Saint Francis of Assisi, Louisville  
Exploring Medical Scrub Contamination

#### **2nd Place**

Charlotte Doninger - Saint Francis of Assisi, Louisville  
Microfiber Pollution: A Hiding Place for Human Pathogens

#### **1st Place**

Mary Shea Ballantine - Saint Francis of Assisi, Louisville  
Hemp Extract: Miracle Cure or Microbiome Disruptor?

### **Physics and Astronomy**

#### **3rd Place**

Gavin Thomson - Saint Francis of Assisi, Louisville  
Exploring Track Car Physics

#### **2nd Place**

Cooper Osborne - Saint Francis of Assisi, Louisville  
Optimizing Inductive Charging in Wearable Items

#### **1st Place**

Teklu Hemme - Saint Francis of Assisi, Louisville  
In Thin Air; Acoustic Levitation of Liquids

### **Plant Sciences**

#### **3rd Place**

Carmen Montgomery - Saint Francis of Assisi, Louisville  
Infrared light effects plant growth

#### **2nd Place**

Iris Apple - Saint Francis of Assisi, Louisville  
Exploring Electrical Signaling in Plants

#### **1st Place**

Mattie Diehl - Saint Francis of Assisi, Louisville  
Ailanthus Altissima: Exploring Noise Pollution's Impact on Allelopathic Toxicity

## **LRSEF- Junior/Middle School Category Awards - March 7, 2020 page 6**

### **Robotics and Intelligent Machines**

#### **3rd Place**

Ian Thorton - Newburg Middle School  
Robot vs. Human

#### **2nd Place**

Brenda Stamm - Newburg Middle School  
Snow Plow Robot

#### **1st Place**

Pete Ansert - Saint Francis of Assisi, Louisville  
ERES: Elderly Emergency Response System

### **Systems Software**

#### **3rd Place**

Jason Millard - Saint Francis of Assisi, Louisville  
Bully Buster: An App to Protect Kids from Online Bullying

#### **2nd Place**

Tanner Aslan - Kammerer Middle  
Creating an Artificial Intelligence That Pursues a Moving Target

#### **1st Place**

Kevin Brothers - Saint Francis of Assisi, Louisville  
Level Five Autonomous Vehicle Ethics: A Proof of Concept

### **Translational Medical Science**

#### **3rd Place**

Liv Ashley - Saint Francis of Assisi, Louisville  
Exploring Toxicity of Vitamin E Acetate in E-Cigarettes

#### **2nd Place**

Sarah Jenkins - Saint Francis of Assisi, Louisville  
Vaping on Developing Bodies

#### **1st Place**

Harrison Jeffreys - Saint Francis of Assisi, Louisville  
Exploring the Effects of AGE Toxicity in Cells