

## **2014 LRSEF JUNIOR DIVISIONAL WINNERS**

### **Animal Sciences**

#### **1st Prize**

Global Warming and Its Impact on Brine Shrimp

Luke Zoeller

St. Francis of Assisi School

#### **2nd Prize**

Storm Anxiety in Dogs

Walker Evans

St. Francis of Assisi School

#### **3rd Prize**

Fish and Sound

Elliot Deep

St. Patrick Catholic School

### **Behavioral & Social Sciences**

#### **1st Prize**

Color vs. Shape; How the Brain Identifies Both And Is It Better At One Or The Other.

Isabela Bajandas

St. Francis of Assisi School

#### **2nd Prize**

Does Wrestling Create Good Self-Esteem?

Jack Calvery

St. Francis of Assisi School

#### **3rd Prize**

Social Anxiety Impacts Social Media Use

Lindsay Jenkins

St. Francis of Assisi School

### **Biochemistry**

#### **1st Prize**

Over-the-counter Medications Affect the Oxidation of Ascorbic Acid

Ruthie Belza

St. Francis of Assisi School

#### **2nd Prize**

Red Dye 40 Impacts Cell Function

Elizabeth Schrenger

St. Francis of Assisi School

**3rd Prize**

Protease Inhibition by Legumes

Nina Render

St. Francis of Assisi School

**Cellular & Molecular Biology**

**1st Prize**

Exploring Vinyl Flooring Cytotoxicity

Analisa Conway

St. Francis of Assisi School

**2nd Prize**

GM corn affects the growth of E. coli

Rachel Gardner

St. Francis of Assisi School

**3rd Prize**

Exploring the Pawpaw's Chemotherapeutic Properties

Sam Belza

St. Francis of Assisi School

**Chemistry**

**1st Prize**

A Novel Reaction to Recycle Glycerol Waste

Joshua Jacob

St. Francis of Assisi School

**2nd Prize**

Investigations Into Electrochemical Processes

Kyra Anderson

Anna Hutchins

Anchorage Public School

**3rd Prize**

Juicing Combinations Affect Ascorbic Acid Content

Annie Munoz

St. Francis of Assisi School

**Computer Science**

**1st Prize**

Computer vs. Human: Rock, Paper, Scissors

Shane Hardin  
St. Patrick Catholic School

## **Earth and Planetary Science**

### **1st Prize**

Human Activity Impacts Micro Climate  
Gretchen Frommeyer  
St. Francis of Assisi School

### **2nd Prize**

Greater Craters  
Melina O'Bryan  
Carrithers Middle School

### **3rd Prize**

Carbon Emissions Affect Glacier Formation  
Timothy Willis  
St. Francis of Assisi School

## **Energy & Transportation**

### **1st Prize**

Making Biofuels: Which Feedstock Grain Mixture Produces The Most Ethanol?  
Virginia Sheldon  
St. Francis of Assisi School

### **2nd Prize**

Exploring Energy and Vibration  
Bridget Coleman  
St. Francis of Assisi School

### **3rd Prize**

Wave Energy  
Matthew Johansen  
St. Francis of Assisi School

## **Engineering: Electrical & Mechanical**

### **1st Prize**

Exploring Rectenna Efficiencies  
Luca Sánchez  
St. Francis of Assisi School

### **2nd Prize**

Beakman Motor-Armature Testing Project

Gabriella Floro  
Saint Mary Academy

**3rd Prize**

Balance Temperature, Efficiently  
Benjamin Jiang  
North Oldham Middle School

**Engineering: Materials & Bioengineering**

**1st Prize**

Exploring How Things Break  
Sarah Rhodes  
St. Francis of Assisi School

**2nd Prize**

Exploring fly ash concrete as a paving material  
Will Drury  
St. Francis of Assisi School

**3rd Prize**

The Best Earth for Bridges  
Cameron Tressler  
Carrithers Middle School

**Environmental Management**

**1st Prize**

Hydraulic Fracking disaster in Knox County, KY: Study & Recommendations for Public Policy  
Natasha Gupta  
Anchorage Public School

**2nd Prize**

Remediating Herbicide Pollution With Hair  
Josie Grace-Mudd  
St. Francis of Assisi School

**3rd Prize**

Remediating the Urban Heat Island Effect  
Ellie Hummel  
St. Francis of Assisi School

**Environmental Sciences**

**1st Prize**

Surface Water Quality and Median Household Income

Emma Cammack  
St. Francis of Assisi School

**2nd Prize**

Proximity to CSO's Impact Bacterial Populations  
Lilly Doninger  
St. Francis of Assisi School

**3rd Prize**

Oil Spills: Measuring Impact on Photosynthesis in Phytoplankton  
Tanya Gupta  
Anchorage Public School

**Mathematical Sciences**

**1st Prize**

Modeling the Effects of Herbicides on Cedar Bog Lake  
Lauryn Grady  
St. Francis of Assisi School

**2nd Prize**

Mathematical Analysis of Lightning Events  
Tess Whitfield  
St. Francis of Assisi School

**3rd Prize**

Devising an algorithm for solving a 4\*4 Rubik's cube  
Riley Weiter  
Carrithers Middle School

**Medicine and Health Sciences**

**1st Prize**

Third Hand Smoke: Factors Effecting Toxicity  
Molly McGuire  
St. Francis of Assisi School

**2nd Prize**

Investing the Fibroepithelioma of Pinkus  
Sam Hall  
St. Francis of Assisi School

**3rd Prize**

Hypergravity Affects Wound Healing  
Maximiliano Sanchez

St. Francis of Assisi School

## **Microbiology**

### **1st Prize**

Volatile Gas Communication in Bacteria

Arah Crain

St. Francis of Assisi School

### **2nd Prize**

Asimina Triloba, Native Kentucky Fruit Novel Antimicrobial

Anna Kate Stukenborg

St. Francis of Assisi School

### **3rd Prize**

Exploring Bleach Baths and Time

Jack Charlton

St. Francis of Assisi School

## **Physics and Astronomy**

### **1st Prize**

Breaching Europa Part 2: Ultrasound Enhancement

Morgan Thomas

St. Francis of Assisi School

### **2nd Prize**

How quickly do tennis balls lose their bounce?

Blake Theriot

St. Patrick Catholic School

### **3rd Prize**

Splash Sizes Affected by Impactor Characteristics

Peter Schoenbachler

St. Francis of Assisi School

## **Plant Sciences**

### **1st Prize**

Sonic Tropism: The Song of Corn

Clara Kaelin

St. Francis of Assisi School

### **2nd Prize**

Does Fly Ash Impact Algae Growth?

Corey McGarvey

St. Francis of Assisi School

**3rd Prize**

Growing Strawberries with Aeroponics

Mansur Estes

Ranny Badreddine

Nur Islamic School of Louisville