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 materiel
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