

# LRSEF- General Award Script - High School

## Animal Sciences

### 3rd Place

Trisha Eedarapalli - Ballard High School Science & Engineering Fair  
The Effect of Canine Saliva on Bacteria

### 2nd Place

Ibrahim Ashraf - Ballard High School Science & Engineering Fair  
What Color Light are Fish More Attracted to?

### 1st Place

Casey Guzman - Ballard High School Science & Engineering Fair  
What is the Average Intelligence of Rats?

## Behavioral and Social Sciences

### 3rd Place

Khalida Raheem - Central Academy School  
The Relationship between People and Laughter

### 2nd Place

Jason Ho - Saint Xavier High School, Louisville  
Education in a 3-D Technological Environment

### 1st Place

Sarah Cecil - Ballard High School Science & Engineering Fair  
How Reliable Are Eyewitness Testimonies?

## Biochemistry

### 3rd Place

Kunik Dhawan, Joshua Eddings, Giovanni Axibal - Eastern High  
Which plants work best with enzymes for decomposition into biofuels

### 2nd Place

Taylor Keen, Brianna Anglin - Valley High School  
Dissolving Pain Killers in the Stomach

### 1st Place

Mariann Sleimat - Ballard High School Science & Engineering Fair  
Do teens that have or had caries take more time for pH to go back to normal than the teens that don't have caries

## Biomedical and Health Sciences

### 3rd Place

Darian Neal - Central Academy School  
Whitening Your Teeth

### 2nd Place

Eliana Head - Ballard High School Science & Engineering Fair  
Does Short-term Aerobic Exercise Positively Affect Memory Recall Ability in Young Adults

### 1st Place

Isabel Wolf - Ballard High School Science & Engineering Fair  
The Balance of Dancers vs Non-dancers

## **Biomedical Engineering**

### **2nd Place**

Claire Duck , Heather Sweet, Eliza Coulter Coulter - Eastern High  
Can Cocoa be a perservative

### **1st Place**

Hannah Martin - Ballard High School Science & Engineering Fair  
Does Gender Play A Role In Risk For A Total Joint Replacement?

## **Cellular and Molecular Biology**

### **3rd Place**

Tamiah Boston, Rachel Vittitow - Eastern High  
vitamins and herbal supplements vs medicine- Can vitamins provide the same healing properties compared to aspirin?

### **2nd Place**

Shivani Nellore - North Oldham High School  
Some Cancer-Associated K-Ras Mutants can have Gain of Function Even When Bound to GDP

### **1st Place**

Edward Zhong - Kentucky Country Day  
Can Yeast Help Boost the Immune Response to Cancer

## **Chemistry**

### **3rd Place**

Daniah Elathamna - Ballard High School Science & Engineering Fair  
Comparing the sweetness of sugar and sugar substitutes

### **2nd Place**

Madelyn Steineker - North Oldham High School  
How much fluoride is absorbed in the mouth from drinking water?

### **1st Place**

Kenny Morgan - Ballard High School Science & Engineering Fair  
Quick Relief Bio-Availability of Pain Relievers

## **Computational Biology and Bioinformatics**

### **3rd Place**

Jawad Saleem - Kentucky Country Day  
Structure Activity Relationship Models for Hepatotoxicity

### **2nd Place**

Emma Valsted - Ballard High School Science & Engineering Fair  
Which Techniques Are the Most Acurate At Predicting the Weather Compared to an Actual Weather Forecast?

### **1st Place**

Vishaal Balamurugan - North Oldham High School  
Why my Bioengineered Human Islets Cures Diabetes: Bioinformatics and Biochemical approaches to identify mechanism.

## **Earth and Environmental Science**

### **3rd Place**

Raymond Pfeiffer IV - Saint Xavier High School, Louisville  
Investigation of the Health Risks for Restaurant Employees

### **2nd Place**

Delaney Ballard - Ballard High School Science & Engineering Fair  
The Impact of Dog Fecal Coliform on Nearby Waterways

**1st Place**

Kaden Grant - Ballard High School Science & Engineering Fair  
Reducing Pollution from Light Fixtures through Efficiency and Shielding

**Embedded Systems**

**2nd Place**

Emily Richardson - Ballard High School Science & Engineering Fair  
How Is Sound Produced From Vinyl Records?

**1st Place**

Patrick Yopp - Ballard High School Science & Engineering Fair  
Smart Pipes

**Energy: Chemical**

**3rd Place**

Gabriel Skaggs , Nathaniel Skaggs, jaden outten - Eastern High  
Chemical energy from Mud

**2nd Place**

Jayanshi Pathak - Ballard High School Science & Engineering Fair  
Microbial Fuel Cells

**1st Place**

Shirlin Kingston - Ballard High School Science & Engineering Fair  
Can The Efficiency Of Hydrogen Gas Production By Electrolysis Be Increased?

**Energy: Physical**

**3rd Place**

Arya Pallavarapu - Ballard High School Science & Engineering Fair  
Solar powered charger

**2nd Place**

Adam Abayev - Ballard High School Science & Engineering Fair  
Charge Funneling

**1st Place**

Collin Kemper - Saint Xavier High School, Louisville  
Essential Features of Hyperloop Systems

**Engineering Mechanics**

**3rd Place**

Avery Smith - Ballard High School Science & Engineering Fair  
Wind Resistance on a Mock Skyscraper

**2nd Place**

Joshua Jacob - Saint Xavier High School, Louisville  
Development of a Hybrid Direct Write 3D Printer: a Novel One-Step Approach to Fabricating Multi-Layer Functional Devices and Flexible Electronics Through Reactive Inkjet Printing

**1st Place**

Rachel Spaulding - Eastern High  
Solar Updraft Tower-Wind Turbine Hybrid: Optimizing Power Generation in Multifarious Climatic Conditions Using Computational Fluid Dynamics Analysis

## **Environmental Engineering**

### **3rd Place**

Hadley Jostsons - Ballard High School Science & Engineering Fair  
The effect of water filtration systems on levels of Copper and Manganese in water.

### **2nd Place**

Katie Bollinger - Ballard High School Science & Engineering Fair  
Comparing Biodegradation of Wipes Marketed as "Flushable"

### **1st Place**

Aidan Villegas - Eastern High  
The Viability of Alternative Energy in the Indian Ocean

## **Materials Science**

### **2nd Place**

Allison Ogle - Ballard High School Science & Engineering Fair  
Which Field Hockey Stick Construction Causes the Field Hockey Ball to Travel Farther?

### **1st Place**

Elizabeth Jessie - Ballard High School Science & Engineering Fair  
An Investigation of the Effect of Curing Temperature of Epoxy on Torsional Strength

## **Mathematics**

### **3rd Place**

Jedidiah Tillman - Eastern High  
The Strengths of Electromagnets

### **2nd Place**

Jada Graham - Ballard High School Science & Engineering Fair  
Tic-Tac-Toe Analysis

### **1st Place**

Cassidy Whited - Valley High School  
Graphing Our Paths

## **Microbiology**

### **3rd Place**

Yafet Zewdie - Eastern High  
Can we use Nanotechnology clean oil spills

### **2nd Place**

William Wiley - Valley High School  
Does Antibacterial Soap Work Better than Normal Soap?

### **1st Place**

Lauren Cail - Ballard High School Science & Engineering Fair  
Musical Pathogens

## **Physics and Astronomy**

### **3rd Place**

PJ Perry - Valley High School  
Life on Other Planets

### **2nd Place**

Eli Schramko - Ballard High School Science & Engineering Fair  
The Effect of Temperature on a Tennis Ball

**1st Place**

Ryan Valsted - Ballard High School Science & Engineering Fair  
The Effect of Lighting on the Dynamic Range and Texture of a Photo

**Plant Sciences****3rd Place**

Charlotte Brown , Melissa Flores, Andrea Gullens - Central Academy School  
How Does Cigarette Smoke Affect Plant Growth?

**2nd Place**

Kaci McCarthy - Ballard High School Science & Engineering Fair  
Electricity vs No Electricity: Lima Bean Plant Growth

**1st Place**

Tryphena Sithu - Brown School Science Fair  
Symbiosis of Azospirillum brasilense and Three Selected Crops in a Hydroponic System

**Robotics and Intelligent Machines****2nd Place**

Zadie Kennedy, Andrew Delaney , Jacob Brown - Eastern High  
The Bot

**1st Place**

Sasmi Heellage - Ballard High School Science & Engineering Fair  
Building a Sensor Based Automated Irrigation System

**Systems Software****2nd Place**

Makayla Young, Diana Zivkovic - Eastern High  
VVIC

**1st Place**

Vishnupriya Ramasamy - Ballard High School Science & Engineering Fair  
Voice Technology For Speech or Hearing Impaired

**Translational Medical Science****3rd Place**

Gregory olds, Joseph Thompson, James Thompson - Eastern High  
Nighttime food consumption producing childhood obesity vs methods to prevent over eating at night

**2nd Place**

Laura-Lynn Skaggs - Valley High School  
The Shingles Cancer Correlation

**1st Place**

Vaitheesh Jaganathan - Ballard High School Science & Engineering Fair  
CAN TENDER COCONUT WATER INHIBIT THE GROWTH OF DIFFERENT TYPES OF CANCER CELLS