

# 2020 Awards MOBILE REGIONAL SCIENCE and ENGINEERING FAIR



University of South Alabama - Jag Gym March 6, 2020

# JUNIORDIVISION

### **Behavioral & Social Sciences**

1<sup>st</sup> Place: Jonas Stay, "DWI: Driving While InTEXTicated"

2<sup>nd</sup> Place: Cullen Host, "Getting Crabby?"

3<sup>rd</sup> Place: Matalyne Kroll, "Music and Personality"

### **Botany/Zoology Group 1**

1<sup>st</sup> Place: Jonathan Russel, "Birds and Aerodynamics"

2<sup>nd</sup> Place: Destiny Bjorensen, "The Little Creatures of Pond Water"

3<sup>rd</sup> Place: Corbin May, "Rusty Plants"

Botany/Zoology Group 2 1<sup>st</sup> Place: Shelby Davis, "Shoo Fly"

2<sup>nd</sup> Place: Potter Boutwell, "Sweet, Semi Sweet, or Bitter Nectar"

3<sup>rd</sup> Place: Lila Solano, "The Companion Planting Game"

#### **Chemistry Group 1**

1<sup>st</sup> Place: Cooper Cox, "Sarcophagus Science"

2<sup>nd</sup> Place: Abigale Van den Bosch, "Building a Gel Electrophoresis Chamber"

3<sup>rd</sup> Place: Jackson Reiney, "Fizzy Pop"

#### **Chemistry Group 2**

1<sup>st</sup> Place: Liam West, "Basically . . . How Soap Works"

2<sup>nd</sup> Place: Oscar Jones, "Will it Mummy?"

3<sup>rd</sup> Place: Lilly Bolton, "Egg-Cellent Muffins"

### **Engineering Group 1**

1<sup>st</sup> Place: Caydn Eades, "Attack of the Monarch"

2<sup>nd</sup> Place: Elise Henderson, "Battle of the Glues"

3<sup>rd</sup> Place: Eva Waters, "Fire Up Your Phone!"

# **Engineering Group 2**

1<sup>st</sup> Place: Sariah Hossain, "Between the Bridges"

2<sup>nd</sup> Place: Samuel Itza, "Just Wing It"

3rd Place: Neshwan Arif, "How Far Will It Fly?"

### **Environmental Science 1**

1<sup>st</sup> Place: Dakota Perry, "Putting the Brakes on a Tsunami"

2<sup>nd</sup> Place: Carley Eaton, "Dangerous Dirt"

3<sup>rd</sup> Place: No Award Made

### **Environmental Science 2**

1<sup>st</sup> Place: Thomas Carmichael, "Are Mardi Gras Beads Toxic: A test of Weights"

2<sup>nd</sup> Place: Josiah Cazalas, "Crystal Clear?"

3<sup>rd</sup> Place: Vivianne Prerost, "It's Electric"

#### Math & Computers

1<sup>st</sup> Place: Merrick Anderson, "Why don't I have a wifi signal"

2<sup>nd</sup> Place: Ryan Morvany, "Analyzing the Temp...Versus Inland Locations"

3<sup>rd</sup> Place: Nolan Pham, "Heat Loss= Money Loss"

# Medicine & Health

1<sup>st</sup> Place: Hannah Mills, "Screen Time!"

2<sup>nd</sup> Place: Nathan Martin, "Glucose and Invertase"

3<sup>rd</sup> Place: Ginny Waites, "Do You Want Fries With That?"

# Physical Science Group 1

1<sup>st</sup> Place: Daltrey LaGros, "Batter Up"

2<sup>nd</sup> Place: Catherine Williams, "Counting Carbs"

3<sup>rd</sup> Place: Amanda Barnickel, "Tame the Flame"

# Physical Science Group 2

1<sup>st</sup> Place: Graham West, "Red Hot Cranberries"

2<sup>nd</sup> Place: Kaleigh Freeman, "Jumping Gymnast"

3<sup>rd</sup> Place: James Crowell, "Germbusters"

# **Physical Science Group 3**

1<sup>st</sup> Place: Madeline Borchert, "Resisting the Rust"

2<sup>nd</sup> Place: Robert Cowell, "Far Flying Paper Airplanes"

3<sup>rd</sup> Place: Quinn Huddleston, "Totally Tubular"

# The Moore Family Statistical Excellence Award

1<sup>st</sup> Place: Thomas Carmichael, "Are Mardi Gras Beads Toxic: A test of Weights"

> 2<sup>nd</sup> Place: Aris Richter, "Does Minimizing/Maximizing...Affect Accuracy?"

3rd Place: Madeline Borchert, "Resisting the Rust"

# **Best-In-Fair**

1st Place: Dakota Perry, "Putting the Brakes on a Tsunami"

2<sup>nd</sup> Place: Thomas Carmichael, "Are Mardi Gras Beads Toxic: A test of Weights"



# **2020 Awards** MOBILE REGIONAL SCIENCE and ENGINEERING FAIR



# University of South Alabama - Jag Gym March 6, 2020

# S E N I O R D I V I S I O N

# **Animal Sciences**

1st Place: No Award Made

2<sup>nd</sup> Place: Caroline Toler, "Do Cats Exhibit Handedness"

3<sup>rd</sup> Place: Lily Welch, "Store Bought versus Fresh Eggs"

# **Behavioral/Social Sciences**

1<sup>st</sup> Place: Samantha Oyler, "Do fabricated responses to increasingly embarrassing questions correlate with the degree of involuntary pupil dilation?"

2<sup>nd</sup> Place: Charity King, "Egg extermination"

3<sup>rd</sup> Place: Ava Zediker, "Screen or Paper"

# Biochemistry

No Awards Made

# **Biomedical & Health Sciences**

1<sup>st</sup> Place: Tonia Pettway, "Meditate Your Lungs"

2<sup>nd</sup> Place: Savannah Dinkel, "The Effect of Time and Cooking Types on the Availability of Nutritional Pigments in Vegetables"

3<sup>rd</sup> Place: Cat Elortegui, "Hot and Cold"

# **Biomedical Engineering/ Bioinformatics**

1<sup>st</sup> Place: Gabriella Taylor, "Design and Implementation of a Novel Thermographic Device for Rapid Diagnosis of Partial Thickness Burns"

2<sup>nd</sup> Place: No Award Made

3<sup>rd</sup> Place: No Award Made

# Cellular/Molecular Biology/Microbiology

1<sup>st</sup> Place: Addie Allred, "The Effectiveness of Home Remedies at Controlling Candidiasis"

2<sup>nd</sup> Place: Dev Mehta, "The Effect of Different Dilutions of Pomegranate, Lemon, Ginger, Turmeric Extracts on the Growth of E. coli Bacteria"

3<sup>rd</sup> Place: Ta'Niyah Phalo, "What's In My Water"

# Chemistry

1<sup>st</sup> Place: Liberty Wigen, "Caffeine concentration in drip brew and cold brew coffee"

2<sup>nd</sup> Place: Rachel Majumder, "Which Humectant Retains the Most Moisture?"

3<sup>rd</sup> Place: Maria Moxey, "Neutralization of HCl using Antacid Medication as Indicated by PH"

# **Computer Science**

1<sup>st</sup> Place: Taya Scott, "Codes Lines"

2<sup>nd</sup> Place: Taylor Carey, "Is it Worth It? (Disposable vs. Digital Cameras)"

3rd Place: Phoenix Brayan, "Lag, Lag, Lag!"

# **Earth and Environmental Sciences**

1<sup>st</sup>: Casey Dinkel, "How is the rate of nutrient uptake and change in biomass by phytoplankton and Sargassum affected when they are permitted to compete?"

2<sup>nd</sup> Place: Anushka Sikdar, "Assessing Nutrient & Metal Variation in Surface Water of the Mobile Bay Water" 3<sup>rd</sup> Place: Elizabeth Turberville, "Environmental Sulfuring"

### **Embedded Systems**

1<sup>st</sup> Place: Cary Xiao, "A Low-Cost Approach to Handheld Laser Diode Communication"

2<sup>nd</sup> Place: No Award Made

3<sup>rd</sup> Place: No Award Made

### **Energy Chemical/ Physical**

1<sup>st</sup> Place: Haydan Emmertson, "Enhancing Solar Cells"

2<sup>nd</sup> Place: Oluwatimilehin Ogunade, "The Citrus Battery"

3<sup>rd</sup> Place: John Boucher-Ferry, "Wahoo for Wind"

### **Engineering: Mechanics**

1<sup>st</sup> Place: Triston Buckley, "Applying Pressure"

2<sup>nd</sup> Place: Ansley Perea, "All of Favorite Colors"

3<sup>rd</sup> Place: Dashiell Allred, "How much weight does your boat float?"

#### **Environmental Engineering**

1<sup>st</sup> Place: Julianne Berte, "Vegetation and Sand Fencing: Effects on Beach Erosion"

2<sup>nd</sup> Place: Dustin Brown, "Converting Bio-Plastics to Bio-Fuel Using Sources w/Similar Polymers as Petroleum-Based Fuel"

3<sup>rd</sup> Place: Tucker Horn, "How Different Types of Aggregates Effect the Strength of Concrete"

# **Materials Science**

1<sup>st</sup> Place: Akanksha Rawat, "A facile method of producing TiO2 nanoparticles through dusty plasma process"

2<sup>nd</sup> Place: Jordan Hobbs, "Ripped at the Seams"

3<sup>rd</sup> Place: Keondra King, "Does wood or metal bat has the most pop"

#### **Mathematics**

1<sup>st</sup> Place: Gregory Li, "K\_6 Minors in 2-Apex 6connected Graphs with the Icosahedral Subgraph"

2<sup>nd</sup> Place: No Award Made

3<sup>rd</sup> Place: No Award Made

### **Physics and Astronomy**

1<sup>st</sup> Place: Pierson Easter, "Planes of Physics"

2<sup>nd</sup> Place: Tyler Thornton, "Hit Your Spot, but with Gas I Think Not"

3<sup>rd</sup> Place: Matthew Leyk, "Blood Drop Forensics"

#### **Plant Sciences**

1<sup>st</sup> Place: Aleksandra Naylor, "Live Oak Trees' Seasonal Storage Changes of Biochemical Energy in their Leaves and Roots"

2<sup>nd</sup> Place: Marie-Claire Don Jayawardena, "The Effects of Light on the Altruism of Pea Plants"

3<sup>rd</sup> Place: Callie Thompson, "Analysis of Light Attenuation on Ilex vomitoria Pigment Concentration"

#### **Robotics/Intelligent Machines**

1<sup>st</sup> Place: Destine Diggs, "A Low-cost Intelligent Anthropomorphic Machine designed for Multiple Applications"

2<sup>nd</sup> Place: No Award Made 3<sup>rd</sup> Place: No Award Made

# **BEST IN FAIR**

1<sup>st</sup> Place: Cary Xiao, "A Low-Cost Approach to Handheld Laser Diode Communication"

2<sup>nd</sup> Place: Akanksha Rawat, "A facile method of producing TiO2 nanoparticles through dusty plasma process"

3<sup>rd</sup> Place: Gabriella Taylor, "Design and Implementation of a Novel Thermographic Device for Rapid Diagnosis of Partial Thickness Burns"

4<sup>th</sup> Place: Rachel Majumder, "Which Humectant Retains the Most Moisture?"

1<sup>st</sup> Alternate: Julianne Berte, "Vegetation and Sand Fencing: Effects on Beach Erosion"

2<sup>nd</sup> Alternate: Savannah Dinkel, "The Effect of Time and Cooking Types on the Availability of Nutritional Pigments in Vegetables"

# The Moore Family Statistical Excellence Award

1<sup>st</sup>: Dev Mehta: "The Effect of Different Dilutions of Pomegranate, Lemon, Ginger, Turmeric Extracts on the Growth of E. coli Bacteria"

2<sup>nd</sup> Place: Samantha Oyler: "Do fabricated responses to increasingly embarrassing questions correlate with the degree of involuntary pupil dilation?"

3<sup>rd</sup> Place: Savannah Dinkel: "The Effect of Time and Cooking Types on the Availability of Nutritional Pigments in Vegetables"