

2018 ALABAMA SCIENCE ENGINEERING FAIR

Special Award Winners

Award: Alabama Modeling and Simulation Council

Junior Division

Participant: Zachary Ellenburg

Project Cat. and No.: Z 134 Bottle Rockets

Place: 1

Columbia Elementary School

Grade: 5

Participant: McLeod Jones

Project Cat. and No.: Z 138 Which BB Packs the Most Punch?

Place: 1

Mill Creek Elementary School

Grade: 5

Participant: Riley Jordan

Project Cat. and No.: N 108 The Fighting Falcon's Fan Blade...It'll Blow You Away

Place: 1

D.A. Smith Middle School

Grade: 8

Senior Division

Participant: Claude Hall

Project Cat. and No.: RI 381 Simulation of Modes in Matlab and Simulink

Place: 1

W.P. Davidson High School

Grade: 12

Participant: Viraj Kacker

Project Cat. and No.: BECB 2 Computational Investigation of Protein Diffusion on the Golgi Apparatus

Place: 1

Jefferson County International Baccalaureate High School

Grade: 10

Participant: Caroline Sturgis

Project Cat. and No.: BECB 2 Modeling an Artificial Pancreas

Place: 1

St. John Paul II Catholic High School

Grade: 10

**Award: Alpha Kappa Alpha - Epsilon Gamma Omega Chapter,
Math & Science Committee**

Junior Division

Participant: Brianna Henry

Project Cat. and No.: BZ 27 Aquaponic, Hydroponic vs. Soil Gardening

Place: **1**

Oakwood Adventist Academy

Grade: 6

Participant: Jordan Jennings

Project Cat. and No.: E 58 The Quick Growing Grass: Using Bamboo to Replace Traditional Roofing Materials

Place: **2**

Key Destiny Academy

Grade: 5

Participant: Jasmyn Vanterpool

Project Cat. and No.: CH 45 Can Garlic Extract Inhibit Bacterial Enzymes?

Place: **3**

Oakwood Adventist Academy

Grade: 6

Senior Division

Participant: Jayden Vanterpool

Project Cat. and No.: BI 254 Can Nanoparticles Prevent Staphylococcus aureus-induced Apoptosis in Endothelial Cells? Part 3

Place: **1**

Oakwood Adventist Academy

Grade: 9

Participant: Shaniya Plump

Project Cat. and No.: BE 220 Stay Woke

Place: **2**

Ramsay High School

Grade: 9

Participant: Jeremiah Davis

Project Cat. and No.: EM 320 How Does the Diameter of a Solid Rocket Motor Nozzle Affect It's Thrust and Burn Duration?

Place: **3**

Oakwood Adventist Academy

Grade: 10

Award: American Chemical Society - The North Alabama Chapter

Junior Division

Participant: Catherine Kung
Project Cat. and No.: CH 37 To Eat or Not to Eat? An Investigation of the Effect of Natural
Place: **1** Ingredients as Inhibitors on the Metabolism of Yeast
Holy Spirit Catholic High School Grade: 8

Participant: Hayden Pilkinton
Project Cat. and No.: CH 41 Glaze Color Change
Place: **2**
Holy Spirit Catholic High School Grade: 8

Participant: Abby Chiskowski
Project Cat. and No.: CH 32 Puffy Perfection
Place: **3**
St. John the Baptist Catholic School Grade: 7

Participant: Lilli Ann Showers
Project Cat. and No.: CH 44 Oil B Gone
Place: **3**
Harrand Creek Elementary Grade: 6

Senior Division

Participant: Madeleine Forbes
Project Cat. and No.: CH 270 The Synthesis and Testing of Potent Yet Selective Inhibitors of
Place: **1** Protein Phosphatase 5
W.P. Davidson High School Grade: 12

Participant: Brody Mickle
Project Cat. and No.: CH 273 Periodicity of Enthalpy Change
Place: **2**
Jefferson County International Baccalaureate High School Grade: 11

Participant: Jaeyoung Lee
Project Cat. and No.: CH 271 Efficiency of Different Metal Oxides at Blocking Out UV Rays in
Place: **3** Sunscreen
Auburn Junior High School Grade: 9

Award: American Institute of Aeronautics and Astronautics

Junior Division

Participant: Riley Jordan
Project Cat. and No.: N 108 The Fighting Falcon's Fan Blade...It'll Blow You Away
Place: 1
D.A. Smith Middle School Grade: 8

Senior Division

Participant: Jeremiah Davis
Project Cat. and No.: EM 320 How Does the Diameter of a Solid Rocket Motor Nozzle Affect
Its Thrust and Burn Duration?
Place: 1
Oakwood Adventist Academy Grade: 10

Participant: Mary Alice Jouve
Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet
Candidates Using Keck Radial Velocity Data
Place: 1
McGill-Toolen Catholic High School Grade: 11

Award: American Meteorological Society

Junior Division

Participant: Abigail Percy
Project Cat. and No.: E 63 Reducing the Heat Island Effect
Place: 1
St. John the Baptist Catholic School Grade: 7

Participant: Bronwyn Sanders Urvi Mysore
Project Cat. and No.: N 113 Sneaky Figures
Place: 1
Heritage Elementary School Grade: 5

Senior Division

Participant: Emily Pinkston
Project Cat. and No.: EA 287 The Impact of Hurricanes on the Composition of Rainwater and
Topsoil
Place: 1
Wetumpka High School Grade: 12

Award: American Physical Society

Junior Division

Participant: McLeod Jones

Project Cat. and No.: Z 138 Which BB Packs the Most Punch?

Place: 1

Mill Creek Elementary School

Grade: 5

Senior Division

Participant: Mary Alice Jouve

Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet
Candidates Using Keck Radial Velocity Data

Place: 1

McGill-Toolen Catholic High School

Grade: 11

Award: American Psychological Association

Junior Division

Participant: Neharika Koppineedi

Project Cat. and No.: BE 5 Multitasking

Place: 1

Mill Creek Elementary School

Grade: 6

Senior Division

Participant: Kate Petersen

Project Cat. and No.: BE 219 The Power of Contrast

Place: 1

St. John Paul II Catholic High School

Grade: 9

Award: American Society of Microbiology

Junior Division

Participant: Catherine Kung

Project Cat. and No.: CH 37 To Eat or Not to Eat? An Investigation of the Effect of Natural
Ingredients as Inhibitors on the Metabolism of Yeast

Place: 1

Holy Spirit Catholic High School

Grade: 8

Senior Division

Participant: Reed Robinson

Project Cat. and No.: CBMI 26 Investigating Heat Exposure on Transgenerational Inheritance in
C. elegans
Place: 1

Alabama School of Mathematics and Science

Grade: 11

Award: Arizona State University - Walton Sustainability Solutions Initiatives

Senior Division

Participant: Analise Chambers

Project Cat. and No.: EA 280 Carbon Dioxide Removal in Coniferous and Deciduous Trees
Place: 1

Jefferson County International Baccalaureate High School

Grade: 11

Participant: Benjamin Davis

Project Cat. and No.: MS 350 Can Pistachio Shells Be Used To Improve Composite Strength?
Place: 1

Auburn Junior High School

Grade: 9

Participant: Noel Lange

Project Cat. and No.: EA 284 Development of Innovative Strategies to Protect the Aquatic
Environment from Household Plastic Microfibers
Place: 1

Auburn High School

Grade: 11

Participant: Sarai Mendoza

Project Cat. and No.: EE 311 Light 'Em Up! Using a Microbial Fuel Cell to Create Electricity
Place: 1

St. John Paul II Catholic High School

Grade: 9

Award: Armed Forces Communications and Electronics Association (AFCEA) Educational Foundation

Junior Division

Participant: Harshil Mehta

Project Cat. and No.: Z 141 Increasing the Distance of Wireless Energy Transfer for
Potential Use in Future Technology
Place: 1

Indian Springs School

Grade: 8

Senior Division

Participant: Jared Callen

Project Cat. and No.: ESSS 33 Developing an Efficient Solution to Personal Computer Security

Place: 1

Wetumpka High School

Grade: 12

Participant: Emily Coggins

Vraj Patel

Project Cat. and No.: ESSS 33 Blind Spot Detection Device

Place: 1

Trussville City School

Grade: 12

Participant: Kevin Xiao

Project Cat. and No.: ESSS 33 Background Noise Reduction By Using Spectral Selection To

Place: 1 Remove Unneeded Frequencies

Alabama School of Mathematics and Science

Grade: 11

Award: ASEF Director's Scholarship, UAH

Senior Division

Participant: Matthew Arnston

Project Cat. and No.: PS 370 Increasing the Lipid Content of Chlorella Algae with Aquatic
Plants

Place: 1

St. John Paul II Catholic High School

Grade: 10

Participant: Mary Alice Jouve

Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet
Candidates Using Keck Radial Velocity Data

Place: 1

McGill-Toolen Catholic High School

Grade: 11

Participant: Noel Lange

Project Cat. and No.: EA 284 Development of Innovative Strategies to Protect the Aquatic
Environment from Household Plastic Microfibers

Place: 1

Auburn High School

Grade: 11

Participant: Alexis McFeely

Project Cat. and No.: BE 218 Assessment of Fall Risk Associated with High-Heeled Footwear
Utilizing Computerized Dynamic Posturography: A Two-Phase
Study

Place: 1

St. John Paul II Catholic High School

Grade: 10

Award: Association for Women Geoscientists

Junior Division

Participant: Joeline Plant
Project Cat. and No.: E 65 Slip and Slide
Place: 1
South Choctaw Academy Grade: 6

Senior Division

Participant: Emily Legg
Project Cat. and No.: EA 285 Slip-Slidin' Away (Water Induced Soil Erosion)
Place: 1
Elmore County High School Grade: 9

Award: Association of Energy Engineers (AEE)

Junior Division

Participant: Oviya Gowder
Project Cat. and No.: E 57 Too Good To Waste
Place: 1
Heritage Elementary School Grade: 5

Participant: Riley Jordan
Project Cat. and No.: N 108 The Fighting Falcon's Fan Blade...It'll Blow You Away
Place: 1
D.A. Smith Middle School Grade: 8

Participant: Lewis Rand
Project Cat. and No.: E 68 Bioremediation of Different Types of Oil
Place: 1
The Altamont School Grade: 7

Senior Division

Participant: Dustin Brown

Project Cat. and No.: ECEP 3 Slowing Down the Burn Speed of Gasoline

Place: 1

Mary G Montgomery High School

Grade: 9

Participant: Nathan Feagans

Andrew Kinzer, Hayden Parks

Project Cat. and No.: ECEP 3 P.E.E.P.S

Place: 1

Hewitt Trussville High School

Grade: 12

Participant: Jacob Hayes

Joseph Seagle, Jacob Hayes

Project Cat. and No.: EM 323 Sanitary Drink Lid Dispenser

Place: 1

Hewitt Trussville High School

Grade: 12

Participant: Emily Hodgson

Project Cat. and No.: EE 310 Goo-Be-Gone

Place: 1

St. John Paul II Catholic High School

Grade: 10

Award: Award for Positive Community Impact

Senior Division

Participant: Jared Callen

Project Cat. and No.: ESSS 33 Developing an Efficient Solution to Personal Computer Security

Place: 1

Wetumpka High School

Grade: 12

Participant: Emily Coggins

Vraj Patel

Project Cat. and No.: ESSS 33 Blind Spot Detection Device

Place: 1

Trussville City School

Grade: 12

Award: Boeing - Koch Grand Prize

Senior Division

Participant: Quen Parson

Project Cat. and No.: MA 340 Determining Necessity of Optimization in Matrix Chain
Place: 1 Multiplication

Alabama School of Fine Arts

Grade: 12

Award: Boeing Company

Junior Division

Participant: Alexandra Albea

Project Cat. and No.: BZ 21 Slow Down Chow Time

Place: 1

Holy Spirit Catholic High School

Grade: 7

Participant: Michael Robert Bollinger

Project Cat. and No.: X 121 Does Charging 16 hours a Day Give Excess Energy Away?

Place: 1

Williams - Academy for Gifted and Talented

Grade: 7

Participant: Drew Crocker

Project Cat. and No.: N 52 The Gift of Lift

Place: 1

Rainbow Elementary School

Grade: 6

Participant: Mary Kate Gunn

Project Cat. and No.: BE 3 Technology: Help or Hurt?

Place: 1

Summerdale Middle

Grade: 7

Participant: Molly Herndon

Ethan Brewer, Aiden Heisey

Project Cat. and No.: N 106 Does Weight Affect the Speed of a Zipline?

Place: 1

Heritage Elementary School

Grade: 5

Participant: Arnav Srivastava

Project Cat. and No.: ME 88 Lipid Digestion? Does the Lipase Enzyme Affect the Rate of Lipid Hydrolysis?

Place: 1

East Samford School

Grade: 7

Participant: Jasmyrn Vanterpool

Project Cat. and No.: CH 45 Can Garlic Extract Inhibit Bacterial Enzymes?

Place: 1

Oakwood Adventist Academy

Grade: 6

Senior Division

Participant: Matthew Arnston

Project Cat. and No.: PS 370 Increasing the Lipid Content of Chlorella Algae with Aquatic
Plants

Place: 1

St. John Paul II Catholic High School

Grade: 10

Participant: Emily Coggins

Vraj Patel

Project Cat. and No.: ESSS 33 Blind Spot Detection Device

Place: 1

Trussville City School

Grade: 12

Participant: John Dennis

Project Cat. and No.: RI 380 A Novel Robotic Fire Extinguishing Device Utilizing Machine
Vision for Flame Detection

Place: 1

Wetumpka High School

Grade: 12

Participant: Emily Hodgson

Project Cat. and No.: EE 310 Goo-Be-Gone

Place: 1

St. John Paul II Catholic High School

Grade: 10

Participant: Mary Alice Jouve

Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet
Candidates Using Keck Radial Velocity Data

Place: 1

McGill-Toolen Catholic High School

Grade: 11

Participant: Amrita Lakhanpal

Project Cat. and No.: BECB 2 Computational Analyses to Identify Genes Disproportionately
Affected by NFKBIA Deletions and Implicated in Breast Cancer
and Glioblastoma Tumorigenesis

Place: 1

The Altamont School

Grade: 11

Participant: Jaeyoung Lee

Project Cat. and No.: CH 271 Efficiency of Different Metal Oxides at Blocking Out UV Rays in
Sunscreen

Place: 1

Auburn Junior High School

Grade: 9

Participant: Emily Legg

Project Cat. and No.: EA 285 Slip-Slidin' Away (Water Induced Soil Erosion)

Place: 1

Elmore County High School

Grade: 9

Participant: Ashraf Mansour

Project Cat. and No.: ECEP 3 Energy Harvesting from Radio Waves

Place: 1

Auburn High School

Grade: 9

Participant: David Murrell

Ian Knapp, Michael Rodriguez

Project Cat. and No.: EM 325 Braking the Long Board

Place: 1

Hewitt Trussville High School

Grade: 12

Participant: David Murrell

Ian Knapp, Michael Rodriguez

Project Cat. and No.: EM 325 Braking the Long Board

Place: 1

Hewitt Trussville High School

Grade: 12

Participant: David Murrell

Ian Knapp, Michael Rodriguez

Project Cat. and No.: EM 325 Braking the Long Board

Place: 1

Hewitt Trussville High School

Grade: 12

Participant: Jenil Patel

Kendrick Yu

Project Cat. and No.: CBMI 26 Capsaicin's Cytotoxicity on MF-7 Extrogen Positive Breast Cancer Cells

Place: 1

James Clemens High School

Grade: 11

Participant: Jenil Patel

Kendrick Yu

Project Cat. and No.: CBMI 26 Capsaicin's Cytotoxicity on MF-7 Extrogen Positive Breast Cancer Cells

Place: 1

James Clemens High School

Grade: 11

Participant: Janina Wu

Project Cat. and No.: AS 201 Dietary Sugars Affect Colonization of Cavity Causing Bacteria in Fruit Flies

Place: 1

Indian Springs School

Grade: 9

Award: Boeing Engineers Award

Junior Division

Participant: Muhammad Saad Ata

Project Cat. and No.: Z 130 What A Blast!

Place: 1

Hampton Cove Middle School

Grade: 8

Participant: Zachary Ellenburg

Project Cat. and No.: Z 134 Bottle Rockets

Place: 1

Columbia Elementary School

Grade: 5

Participant: Oviya Gowder

Project Cat. and No.: E 57 Too Good To Waste

Place: 1

Heritage Elementary School

Grade: 5

Participant: Brianna Henry

Project Cat. and No.: BZ 27 Aquaponic, Hydroponic vs. Soil Gardening

Place: 1

Oakwood Adventist Academy

Grade: 6

Participant: Grace Hur

Project Cat. and No.: BE 4 Don't Talk to Me

Place: 1

Mill Creek Elementary School

Grade: 6

Participant: Ahmed Jasser

Project Cat. and No.: ME 82 Miracle Oils

Place: 1

Islamic Academy of Alabama

Grade: 7

Participant: Riley Jordan

Project Cat. and No.: N 108 The Fighting Falcon's Fan Blade...It'll Blow You Away

Place: 1

D.A. Smith Middle School

Grade: 8

Participant: Joshua Murphree

Project Cat. and No.: ME 85 Analysing DNA: A Cheaper Alternative to Proteinasek

Place: 1

Liberty Middle School

Grade: 8

Participant: Zoe Patin

Project Cat. and No.: BE 10 The Age of Creativity

Place: 1

St. John the Baptist Catholic School

Grade: 7

Participant: Laura Phillips

Project Cat. and No.: CH 40 Predictive Index of Cereal Sogginess (P.I.C.S)

Place: 1

Hampton Cove Middle School

Grade: 7

Participant: Hayden Pilkinton

Project Cat. and No.: CH 41 Glaze Color Change

Place: 1

Holy Spirit Catholic High School

Grade: 8

Participant: Jenna Marie Piner

Project Cat. and No.: Z 146 The Effect of Temperature on Growing Crystals

Place: 1

Home School

Grade: 8

Participant: Keerthan Singireddy

Project Cat. and No.: E 70 Which Filtration Material Leads to the Best Drinking Water?

Place: 1

Mill Creek Elementary School

Grade: 6

Participant: Annie Wingate

Project Cat. and No.: E 73 What Happened To All The Fish? (How Do Different Types of Fertilizer Affect the Acidity and Other Properties of Runoff Water?)

Place: 1

Admiral Thomas H. Moorer Middle School

Grade: 7

Senior Division

Participant: Elizabeth Barber

Project Cat. and No.: BE 210 Pictures in Passing

Place: 1

Shoals Christian School

Grade: 10

Participant: Jeremiah Davis

Project Cat. and No.: EM 320 How Does the Diameter of a Solid Rocket Motor Nozzle Affect
Its Thrust and Burn Duration?

Place: 1

Oakwood Adventist Academy

Grade: 10

Participant: Brody Mickle

Project Cat. and No.: CH 273 Periodicity of Enthalpy Change

Place: 1

Jefferson County International Baccalaureate High School

Grade: 11

Participant: Emily Pinkston

Project Cat. and No.: EA 287 The Impact of Hurricanes on the Composition of Rainwater and
Topsoil

Place: 1

Wetumpka High School

Grade: 12

Participant: Alexandra Pritchard

Project Cat. and No.: BHTM 2 Exosomes and Macrophage Polarization in Lung Cancer

Place: 1

The Altamont School

Grade: 11

Participant: Spenser Willard

Project Cat. and No.: ESSS 33 Does Increasing the Speed of the OODA Loop Increase
Survival?

Place: 1

St. John Paul II Catholic High School

Grade: 11

Participant: Suma Ejantkar

Jiho Lee

Project Cat. and No.: BI 251 NovelCloud Seeding Method Using Bacterial Ice Nucleators with
Regionalized pH Influence

Place: 2

Auburn High School

Grade: 11

Participant: Alexis McFeely

Project Cat. and No.: BE 218 Assessment of Fall Risk Associated with High-Heeled Footwear
Utilizing Computerized Dynamic Posturography: A Two-Phase
Study

Place: 3

St. John Paul II Catholic High School

Grade: 10

Award: Broadcom Masters

Junior Division

Participant: Angela Ai

Project Cat. and No.: BZ 20

Place: 1

Mill Creek Elementary School

Will Strawberries Stay Fresher With a Meta Mucil Solution Coating?

Grade: 6

Participant: Jacob Bui

Project Cat. and No.: X 122

Place: 1

Holy Spirit Catholic High School

Keeping It Cool

Grade: 8

Participant: AnnaBekah Cress

Project Cat. and No.: Z 132

Place: 1

Libertas

Fiber Optic Communications

Grade: 7

Participant: Brianna Henry

Project Cat. and No.: BZ 27

Place: 1

Oakwood Adventist Academy

Aquaponic, Hydroponic vs. Soil Gardening

Grade: 6

Participant: Grace Hur

Project Cat. and No.: BE 4

Place: 1

Mill Creek Elementary School

Don't Talk to Me

Grade: 6

Participant: Javon Jennings

Project Cat. and No.: N 107

Place: 1

Key Destiny Academy

4.5 Billion Meets the 21st Century: Harnessing Solar Energy with Modern Technology

Grade: 7

Participant: Catherine Kung

Project Cat. and No.: CH 37

Place: 1

Holy Spirit Catholic High School

To Eat or Not to Eat? An Investigation of the Effect of Natural Ingredients as Inhibitors on the Metabolism of Yeast

Grade: 8

Participant: Marie Mewes

Project Cat. and No.: Z 142

Place: 1

Holy Spirit Catholic High School

Insulation: A Cool Way to Stay Warm

Grade: 8

Participant: Luke Minnon

Project Cat. and No.: N 110 Project R.O.H.U.S.S. (Remotely Operated Hydraulic Underwater
Sediment Sampler)

Place: 1

Decatur Presbyterian Christian School

Grade: 7

Participant: Joshua Murphree

Project Cat. and No.: ME 85 Analysing DNA: A Cheaper Alternative to Proteinasek

Place: 1

Liberty Middle School

Grade: 8

Participant: Talal Naser

Project Cat. and No.: X 124 Indirect Measurements II

Place: 1

Islamic Academy Of Alabama

Grade: 8

Participant: Hayden Pilkinton

Project Cat. and No.: CH 41 Glaze Color Change

Place: 1

Holy Spirit Catholic High School

Grade: 8

Participant: Ashwin Prabhakar

Project Cat. and No.: E 67 Synthetic Enhancement of Photosynthesis

Place: 1

Discovery Middle School

Grade: 7

Participant: Julian Vilardi

Project Cat. and No.: BE 12 Sleep Tight Don't Let the Blue Light Bite!

Place: 1

Wetumpka Middle School

Grade: 8

Participant: Maya Young

Project Cat. and No.: ME 91 Dish Washing Derby

Place: 1

Holy Spirit Catholic High School

Grade: 8

Award: Dauphin Island Sea Lab. - Marine Environmental Sciences Consortium

Junior Division

Participant: Luke Minnon

Project Cat. and No.: N 110 Project R.O.H.U.S.S. (Remotely Operated Hydraulic Underwater Sediment Sampler)
Place: **1**
Decatur Presbyterian Christian School Grade: 7

Participant: Louisa Forbes

Project Cat. and No.: E 55 Fuel of the Future: Generating Biofuels from Local Invasive Plants
Place: **HM**
Clark Shaw Magnet School of Math Science and Technology Grade: 8

Participant: Brianna Henry

Project Cat. and No.: BZ 27 Aquaponic, Hydroponic vs. Soil Gardening
Place: **HM**
Oakwood Adventist Academy Grade: 6

Participant: Pranaav Satheesh

Project Cat. and No.: E 69 Ocean Temperature: How Does Plastic Affect It ?
Place: **HM**
Columbia Elementary School Grade: 6

Senior Division

Participant: Noel Lange

Project Cat. and No.: EA 284 Development of Innovative Strategies to Protect the Aquatic Environment from Household Plastic Microfibers
Place: **1**
Auburn High School Grade: 11

Participant: Deanna Scopolites

Project Cat. and No.: AS 202 Does the Oceans pH Effect the Crassostrea Virginica Population?
Place: **HM**
Murphy High School Grade: 11

Award: Directed Energy Professional Society

Junior Division

Participant: AnnaBekah Cress

Project Cat. and No.: Z 132 Fiber Optic Communications

Place: **1**

Libertas

Grade: 7

Participant: Javon Jennings

Project Cat. and No.: N 107 4.5 Billion Meets the 21st Century: Harnessing Solar Energy with
Modern Technology

Place: **2**

Key Destiny Academy

Grade: 7

Participant: Bronwyn Sanders

Urvi Mysore

Project Cat. and No.: N 113 Sneaky Figures

Place: **3**

Heritage Elementary School

Grade: 5

Senior Division

Participant: Sophie Guo

Project Cat. and No.: ESSS 33 Ultra-Sensitive Cardiac Biomarker Detection Using Gold
Nanocavity Localized Plasmon Resonance for Early and Rapid
Diagnosis of Myocardial Infarction

Place: 1

James Clemens High School

Grade: 12

Participant: Aniket Pant

Project Cat. and No.: CH 277 Optical Studies of Nanostructures for Biosensing Applications

Place: 2

Jefferson County International Baccalaureate High School

Grade: 10

Participant: Kevin Xiao

Project Cat. and No.: ESSS 33 Background Noise Reduction By Using Spectral Selection To
Remove Unneeded Frequencies

Place: 3

Alabama School of Mathematics and Science

Grade: 11

Participant: Jaeyoung Lee

Project Cat. and No.: CH 271 Efficiency of Different Metal Oxides at Blocking Out UV Rays in
Sunscreen

Place: HM

Auburn Junior High School

Grade: 9

Participant: Rebecca Mathews

Project Cat. and No.: CH 272 UV Defense: What Type of Sunscreen is Most Effective?

Place: HM

St. John Paul II Catholic High School

Grade: 10

Award: Dr. and Mrs. Graeme Duthie Award

Junior Division

Participant: Sophia Branscome

Project Cat. and No.: ME 80 Horseback Heart Attack: Getting Fit on Horseback

Place: 1

AGT Williams

Grade: 6

Award: Genius Olympiad

Senior Division

Participant: Brody Mickle

Project Cat. and No.: CH 273 Periodicity of Enthalpy Change

Place: 1

Jefferson County International Baccalaureate High School

Grade: 11

Participant: Janna Oh

Project Cat. and No.: EA 286 Silver Nanoparticle-Based Active Food Packaging

Place: 1

Auburn High School

Grade: 12

Award: Greater Huntsville Rotary

Junior Division

Participant: Luke Minnon

Project Cat. and No.: N 110 Project R.O.H.U.S.S. (Remotely Operated Hydraulic Underwater Sediment Sampler)

Place: 1

Decatur Presbyterian Christian School

Grade: 7

Participant: Hunter Ryan

Project Cat. and No.: Z 148 Wind At Work

Place: 2

Phillips Preparatory School

Grade: 7

Senior Division

Participant: Noel Lange

Project Cat. and No.: EA 284 Development of Innovative Strategies to Protect the Aquatic Environment from Household Plastic Microfibers

Place: 1

Auburn High School

Grade: 11

Participant: Brayden Noh

Project Cat. and No.: EM 326 Biomechanical Effect of a Novel Designed Passive Knee Exoskeleton for Human Augmentation

Place: 2

Auburn High School

Grade: 9

Award: Huntsville Botanical Gardens

Junior Division

Participant: Oviya Gowder

Project Cat. and No.: E 57 Too Good To Waste

Place: 1

Heritage Elementary School

Grade: 5

Participant: Brianna Henry

Project Cat. and No.: BZ 27 Aquaponic, Hydroponic vs. Soil Gardening

Place: 1

Oakwood Adventist Academy

Grade: 6

Participant: Vaughan Mountain

Project Cat. and No.: BZ 24 Filtering on the Green: Duckweed Water Filtration

Place: 1

Oakwood Adventist Academy

Grade: 6

Participant: Gavin Poole

Project Cat. and No.: E 66 Water Purification Using Copper and Silver

Place: 1

Indian Springs School

Grade: 8

Participant: Gavin Poole

Project Cat. and No.: E 66 Water Purification Using Copper and Silver

Place: 1

Indian Springs School

Grade: 8

Senior Division

Participant: Emily Legg

Project Cat. and No.: EA 285 Slip-Slidin' Away (Water Induced Soil Erosion)

Place: 1

Elmore County High School

Grade: 9

Participant: Emily Pinkston

Project Cat. and No.: EA 287 The Impact of Hurricanes on the Composition of Rainwater and Topsoil

Place: 1

Wetumpka High School

Grade: 12

Award: Huntsville Electro-Optical Society

Junior Division

Participant: AnnaBekah Cress

Project Cat. and No.: Z 132 Fiber Optic Communications

Place: 1

Libertas

Grade: 7

Participant: Ashwin Prabhakar

Project Cat. and No.: E 67 Synthetic Enhancement of Photosynthesis

Place: 1

Discovery Middle School

Grade: 7

Participant: Jack Revera

Project Cat. and No.: Z 147 Tracking Asteroids

Place: 1

Horizon Elementary School

Grade: 5

Participant: William Tomlinson

Project Cat. and No.: N 114 Get Your Fill

Place: 1

St. Joseph Regional Catholic School

Grade: 8

Award: IEEE Huntsville Section

Junior Division

Participant: Luke Minnon

Project Cat. and No.: N 110 Project R.O.H.U.S.S. (Remotely Operated Hydraulic Underwater
Sediment Sampler)
Place: 1

Decatur Presbyterian Christian School

Grade: 7

Participant: Ashwin Prabhakar

Project Cat. and No.: E 67 Synthetic Enhancement of Photosynthesis
Place: 1

Discovery Middle School

Grade: 7

Participant: Jack Revera

Project Cat. and No.: Z 147 Tracking Asteroids
Place: 1

Horizon Elementary School

Grade: 5

Participant: William Tomlinson

Project Cat. and No.: N 114 Get Your Fill
Place: 1

St. Joseph Regional Catholic School

Grade: 8

Senior Division

Participant: Jared Callen

Project Cat. and No.: ESSS 33 Developing an Efficient Solution to Personal Computer Security

Place: 1

Wetumpka High School

Grade: 12

Participant: Alex Forbes

Project Cat. and No.: EM 322 Intracranial Pressure Monitoring and Patient Comfort

Place: 1

Indian Springs School

Grade: 9

Participant: Sophie Guo

Project Cat. and No.: ESSS 33 Ultra-Sensitive Cardiac Biomarker Detection Using Gold Nanocavity Localized Plasmon Resonance for Early and Rapid Diagnosis of Myocardial Infarction

Place: 1

James Clemens High School

Grade: 12

Participant: Madison Werkheiser

Project Cat. and No.: ESSS 33 Application of 3-D Printed Capacitive Touch Sensors to Track Liquid Consumption

Place: 1

James Clemens High School

Grade: 10

Award: Intel - Excellence in Computer Science

Senior Division

Participant: Jared Callen

Project Cat. and No.: ESSS 33 Developing an Efficient Solution to Personal Computer Security

Place: 1

Wetumpka High School

Grade: 12

Participant: Quen Parson

Project Cat. and No.: MA 340 Determining Necessity of Optimization in Matrix Chain Multiplication

Place: 1

Alabama School of Fine Arts

Grade: 12

Award: ISEF Finalists

Senior Division

Participant: Jared Callen

Project Cat. and No.: ESSS 33 Developing an Efficient Solution to Personal Computer Security

Place: 1

Wetumpka High School

Grade: 12

Participant: Madeleine Forbes

Project Cat. and No.: CH 270 The Synthesis and Testing of Potent Yet Selective Inhibitors of Protein Phosphatase 5

Place: 1

W.P. Davidson High School

Grade: 12

Participant: Noel Lange

Project Cat. and No.: EA 284 Development of Innovative Strategies to Protect the Aquatic Environment from Household Plastic Microfibers

Place: 1

Auburn High School

Grade: 11

Participant: Brayden Noh

Project Cat. and No.: EM 326 Biomechanical Effect of a Novel Designed Passive Knee Exoskeleton for Human Augmentation

Place: 1

Auburn High School

Grade: 9

NOTE: Ms Forbes was unable to attend ISEF, and first alternate Amrita Lakhanpal, 11th grade, The Altamont School, will attend for her project "Computational Analyses to Identify Genes Disproportionately Affected by NFKBIA Deletions and Implicated in Breast Cancer and Glioblastoma Tumorigenesis." ,

Award: Junior Grand Awards

Junior Division

Participant: Julia Freestone

Project Cat. and No.: N 104 Quieter Quadcopters

Place: 1

St. John the Baptist Catholic School

Grade: 7

Participant: Riley Jordan

Project Cat. and No.: N 108 The Fighting Falcon's Fan Blade...It'll Blow You Away

Place: 1

D.A. Smith Middle School

Grade: 8

Participant: Catherine Kung

Project Cat. and No.: CH 37 To Eat or Not to Eat? An Investigation of the Effect of Natural Ingredients as Inhibitors on the Metabolism of Yeast

Place: 1

Holy Spirit Catholic High School

Grade: 8

Participant: Ashwin Prabhakar

Project Cat. and No.: E 67 Synthetic Enhancement of Photosynthesis

Place: 1

Discovery Middle School

Grade: 7

Award: Mu Alpha Theta

Senior Division

Participant: Mary Alice Jouve

Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet Candidates Using Keck Radial Velocity Data

Place: 1

McGill-Toolen Catholic High School

Grade: 11

Participant: Quen Parson

Project Cat. and No.: MA 340 Determining Necessity of Optimization in Matrix Chain Multiplication

Place: 1

Alabama School of Fine Arts

Grade: 12

Award: NASA EARTH System Science Award

Senior Division

Participant: Suma Ejantkar Jiho Lee
Project Cat. and No.: BI 251 NovelCloud Seeding Method Using Bacterial Ice Nucleators with
Place: 1 Regionalized pH Influence
Auburn High School Grade: 11

Participant: Emily Pinkston
Project Cat. and No.: EA 287 The Impact of Hurricanes on the Composition of Rainwater and
Place: 1 Topsoil
Wetumpka High School Grade: 12

Award: National Aeronautics & Space Administration

Junior Division

Participant: Muhammad Saad Ata
Project Cat. and No.: Z 130 What A Blast!
Place: 1
Hampton Cove Middle School Grade: 8

Senior Division

Participant: Jeremiah Davis

Project Cat. and No.: EM 320 How Does the Diameter of a Solid Rocket Motor Nozzle Affect
Its Thrust and Burn Duration?
Place: 1

Oakwood Adventist Academy

Grade: 10

Participant: Claude Hall

Project Cat. and No.: RI 381 Simulation of Modes in Matlab and Simulink
Place: 1

W.P. Davidson High School

Grade: 12

Participant: Mary Alice Jouve

Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet
Candidates Using Keck Radial Velocity Data
Place: 1

McGill-Toolen Catholic High School

Grade: 11

Participant: Sarai Mendoza

Project Cat. and No.: EE 311 Light 'Em Up! Using a Microbial Fuel Cell to Create Electricity
Place: 1

St. John Paul II Catholic High School

Grade: 9

Award: National Oceanic and Atmospheric Administration - Taking the Pulse of the Planet Award

Senior Division

Participant: Suma Ejantkar

Jiho Lee

Project Cat. and No.: BI 251 NovelCloud Seeding Method Using Bacterial Ice Nucleators with
Regionalized pH Influence
Place: 1

Auburn High School

Grade: 11

Participant: Emily Pinkston

Project Cat. and No.: EA 287 The Impact of Hurricanes on the Composition of Rainwater and
Topsoil
Place: 1

Wetumpka High School

Grade: 12

Award: National Youth Science Foundation Award

Senior Division

Participant: Alexandra Pritchard

Project Cat. and No.: BHTM 2 Exosomes and Macrophage Polarization in Lung Cancer

Place: **1**

The Altamont School

Grade: 11

Participant: Amrita Lakhanpal

Project Cat. and No.: BECB 2 Computational Analyses to Identify Genes Disproportionately Affected by NFKBIA Deletions and Implicated in Breast Cancer and Glioblastoma Tumorigenesis

Place: **HM**

The Altamont School

Grade: 11

Award: Ricoh Americas Corporation

Senior Division

Participant: Lucas Lynn

Project Cat. and No.: EM 324 The Hexagonal Weave: Using Hexagonal Engineering to Create a Better Body Armor

Place: **1**

Wetumpka High School

Grade: 12

Award: Society for In Vitro Biology

Senior Division

Participant: Jenil Patel

Kendrick Yu

Project Cat. and No.: CBMI 26 Capsaicin's Cytotoxicity on MF-7 Estrogen Positive Breast Cancer Cells

Place: **1**

James Clemens High School

Grade: 11

Participant: Alexandra Pritchard

Project Cat. and No.: BHTM 2 Exosomes and Macrophage Polarization in Lung Cancer

Place: **1**

The Altamont School

Grade: 11

**Award: Society of American Military Engineers (SAME) -
Huntsville Post**

Junior Division

Participant: Luke Minnon

Project Cat. and No.: N 110 Project R.O.H.U.S.S. (Remotely Operated Hydraulic Underwater
Sediment Sampler)

Place: **1**

Decatur Presbyterian Christian School

Grade: 7

Senior Division

Participant: John Dennis

Project Cat. and No.: RI 380 A Novel Robotic Fire Extinguishing Device Utilizing Machine
Vision for Flame Detection

Place: **1**

Wetumpka High School

Grade: 12

Award: Soil & Water Conservation Society

Junior Division

Participant: Annie Wingate

Project Cat. and No.: E 73 What Happened To All The Fish? (How Do Different Types of
Fertilizer Affect the Acidity and Other Properties of Runoff
Water?)

Place: **1**

Admiral Thomas H. Moorer Middle School

Grade: 7

Participant: Abigail Percy

Project Cat. and No.: E 63 Reducing the Heat Island Effect

Place: **HM**

St. John the Baptist Catholic School

Grade: 7

Senior Division

Participant: Sarah Van Winkle

Project Cat. and No.: EA 289 Assessing Nutrient & Trace Metal Variation in Surface Water of
the Mobile Bay Watershed

Place: **1**

Alabama School of Mathematics and Science

Grade: 11

Participant: Noel Lange

Project Cat. and No.: EA 284 Development of Innovative Strategies to Protect the Aquatic
Environment from Household Plastic Microfibers

Place: **HM**

Auburn High School

Grade: 11

Award: SPIE - The International Society for Optics & Photonics

Senior Division

Participant: Sophie Guo

Project Cat. and No.: ESSS 33 Ultra-Sensitive Cardiac Biomarker Detection Using Gold
Nanocavity Localized Plasmon Resonance for Early and Rapid
Diagnosis of Myocardial Infarction
Place: **1**
James Clemens High School Grade: 12

Participant: Mary Alice Jouve

Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet
Candidates Using Keck Radial Velocity Data
Place: **2**
McGill-Toolen Catholic High School Grade: 11

Participant: Aniket Pant

Project Cat. and No.: CH 277 Optical Studies of Nanostructures for Biosensing Applications
Place: **3**
Jefferson County International Baccalaureate High School Grade: 10

Participant: John Dennis

Project Cat. and No.: RI 380 A Novel Robotic Fire Extinguishing Device Utilizing Machine
Vision for Flame Detection
Place: **HM**
Wetumpka High School Grade: 12

Participant: Jayden Vanterpool

Project Cat. and No.: BI 254 Can Nanoparticles Prevent Staphylococcus aureus-induced
Apoptosis in Endothelial Cells? Part 3
Place: **HM**
Oakwood Adventist Academy Grade: 9

Award: Stockholm Junior Water Prize

Senior Division

Participant: Matthew Arnston

Project Cat. and No.: PS 370 Increasing the Lipid Content of Chlorella Algae with Aquatic
Plants

Place: 1

St. John Paul II Catholic High School

Grade: 10

Participant: Emily Hodgson

Project Cat. and No.: EE 310 Goo-Be-Gone

Place: 1

St. John Paul II Catholic High School

Grade: 10

Participant: Noel Lange

Project Cat. and No.: EA 284 Development of Innovative Strategies to Protect the Aquatic
Environment from Household Plastic Microfibers

Place: 1

Auburn High School

Grade: 11

Participant: Emily Pinkston

Project Cat. and No.: EA 287 The Impact of Hurricanes on the Composition of Rainwater and
Topsoil

Place: 1

Wetumpka High School

Grade: 12

Participant: Vanessa Siggers

Project Cat. and No.: EA 288 Not So Slick: Constructing a Microholed Device for Oil Spill
Absorption and Storage and Testing its Remediation Abilities on
Oils of Varying Viscosities

Place: 1

Murphy High School

Grade: 10

Participant: Madison Williams

Project Cat. and No.: EA 290 Go Green or Convene: The Effect of "Green" and Conventional
Laundry Detergents on Earthworm Populations

Place: 1

Central High School

Grade: 12

Award: Teledyne Brown Engineering Award

Junior Division

Participant: Riley Jordan

Project Cat. and No.: N 108 The Fighting Falcon's Fan Blade...It'll Blow You Away

Place: 1

D.A. Smith Middle School

Grade: 8

Senior Division

Participant: Brayden Noh

Project Cat. and No.: EM 326 Biomechanical Effect of a Novel Designed Passive Knee
Exoskeleton for Human Augmentation

Place: 1

Auburn High School

Grade: 9

Award: Toyota Motor Manufacturing Company

Junior Division

Participant: Luke Minnon

Project Cat. and No.: N 110 Project R.O.H.U.S.S. (Remotely Operated Hydraulic Underwater
Sediment Sampler)

Place: 1

Decatur Presbyterian Christian School

Grade: 7

Senior Division

Participant: Emily Coggins

Vraj Patel

Project Cat. and No.: ESSS 33 Blind Spot Detection Device

Place: 1

Trussville City School

Grade: 12

Award: U.S. Air Force

Senior Division

- Participant: Suma Ejantkar Jiho Lee
Project Cat. and No.: BI 251 NovelCloud Seeding Method Using Bacterial Ice Nucleators with
Place: **1** Regionalized pH Influence
Auburn High School Grade: 11
- Participant: Nathan Feagans Andrew Kinzer, Hayden Parks
Project Cat. and No.: ECEP 3 P.E.E.P.S
Place: **1**
Hewitt Trussville High School Grade: 12
- Participant: Lucas Lynn
Project Cat. and No.: EM 324 The Hexagonal Weave: Using Hexagonal Engineering to Create
Place: **1** a Better Body Armor
Wetumpka High School Grade: 12
- Participant: Cannon Riccio Long Nguyen, Ethan Swatek
Project Cat. and No.: BECB 2 Adjustable Affordable Leg Brace
Place: **1**
Hewitt Trussville High School Grade: 12

Award: U.S. Army Science and Engineering Awards Program

Junior Division

Participant: Madhushalini Balaji

Project Cat. and No.: X 120 Preventing Hot Car Deaths

Place: 1

Heritage Elementary School

Grade: 6

Participant: AnnaBekah Cress

Project Cat. and No.: Z 132 Fiber Optic Communications

Place: 1

Libertas

Grade: 7

Participant: Aisha Diallo

Project Cat. and No.: E 53 Sunny Yummy

Place: 1

Islamic Academy of Alabama

Grade: 6

Participant: Zachary Ellenburg

Project Cat. and No.: Z 134 Bottle Rockets

Place: 1

Columbia Elementary School

Grade: 5

Participant: Louisa Forbes

Project Cat. and No.: E 55 Fuel of the Future: Generating Biofuels from Local Invasive Plants

Place: 1

Clark Shaw Magnet School of Math Science and Technology

Grade: 8

Participant: Julia Freestone

Project Cat. and No.: N 104 Quieter Quadcopters

Place: 1

St. John the Baptist Catholic School

Grade: 7

Participant: Brianna Henry

Project Cat. and No.: BZ 27 Aquaponic, Hydroponic vs. Soil Gardening

Place: 1

Oakwood Adventist Academy

Grade: 6

Participant: Riley Jordan

Project Cat. and No.: N 108 The Fighting Falcon's Fan Blade...It'll Blow You Away

Place: 1

D.A. Smith Middle School

Grade: 8

Participant: Harshil Mehta

Project Cat. and No.: Z 141

Place: 1

Indian Springs School

Increasing the Distance of Wireless Energy Transfer for Potential Use in Future Technology

Grade: 8

Participant: Alex Mooney

Project Cat. and No.: N 111

Place: 1

Home School

The Optimal Stud Distance

Grade: 7

Participant: Vaughan Mountain

Project Cat. and No.: BZ 24

Place: 1

Oakwood Adventist Academy

Filtering on the Green: Duckweed Water Filtration

Grade: 6

Participant: Evan Nix

Project Cat. and No.: Z 144

Place: 1

Patrician Academy

Wi-Fi

Grade: 8

Participant: Mark Underwood

Project Cat. and No.: E 72

Place: 1

Hilltop Montessori School

Biofuels from Farm and Household Waste

Grade: 7

Participant: Jasmyn Vanterpool

Project Cat. and No.: CH 45

Place: 1

Oakwood Adventist Academy

Can Garlic Extract Inhibit Bacterial Enzymes?

Grade: 6

Senior Division

- Participant: Quen Parson
Project Cat. and No.: MA 340 Determining Necessity of Optimization in Matrix Chain Multiplication
Place: **1**
Alabama School of Fine Arts Grade: 12
- Participant: Cannon Riccio Long Nguyen, Ethan Swatek
Project Cat. and No.: BECB 2 Adjustable Affordable Leg Brace
Place: **2**
Hewitt Trussville High School Grade: 12
- Participant: Emily Coggins Vraj Patel
Project Cat. and No.: ESSS 33 Blind Spot Detection Device
Place: **3**
Trussville City School Grade: 12
- Participant: Sharee Riggs
Project Cat. and No.: BECB 2 Food for the Future: A Study of Insects as Global Food Security
Place: **3**
Wetumpka High School Grade: 12
- Participant: Elizabeth Barber
Project Cat. and No.: BE 210 Pictures in Passing
Place: **HM**
Shoals Christian School Grade: 10
- Participant: Analise Chambers
Project Cat. and No.: EA 280 Carbon Dioxide Removal in Coniferous and Deciduous Trees
Place: **HM**
Jefferson County International Baccalaureate High School Grade: 11
- Participant: Jeremiah Davis
Project Cat. and No.: EM 320 How Does the Diameter of a Solid Rocket Motor Nozzle Affect It's Thrust and Burn Duration?
Place: **HM**
Oakwood Adventist Academy Grade: 10
- Participant: John Dennis
Project Cat. and No.: RI 380 A Novel Robotic Fire Extinguishing Device Utilizing Machine Vision for Flame Detection
Place: **HM**
Wetumpka High School Grade: 12

Participant: Elizabeth Gresham
 Project Cat. and No.: BE 215 Peer Group Influences on High School Girls's Interest in
 Place: **HM** STEM
 Alabama School of Fine Arts Grade: 12

Participant: Claude Hall
 Project Cat. and No.: RI 381 Simulation of Modes in Matlab and Simulink
 Place: **HM**
 W.P. Davidson High School Grade: 12

Participant: Amrita Lakhanpal
 Project Cat. and No.: BECB 2 Computational Analyses to Identify Genes Disproportionately
 Place: **HM** Affected by NFKBIA Deletions and Implicated in Breast Cancer
 and Glioblastoma Tumorigenesis
 The Altamont School Grade: 11

Participant: Arielle Madrid
 Project Cat. and No.: BHTM 2 Does Flossing Decrease the Amount of Aerobic Oral Bacteria?
 Place: **HM**
 Oakwood Adventist Academy Grade: 9

Participant: Dominik Middleton
 Project Cat. and No.: CH 274 Which Sandwich Bag Can Best Withstand a Chemical
 Place: **HM** Explosion?
 Oakwood Adventist Academy Grade: 10

Participant: Aniket Pant
 Project Cat. and No.: CH 277 Optical Studies of Nanostructures for Biosensing Applications
 Place: **HM**
 Jefferson County International Baccalaureate High School Grade: 10

Participant: Remy Patin
 Project Cat. and No.: RI 382 Motorized Madness
 Place: **HM**
 St. John Paul II Catholic High School Grade: 9

Participant: Alexandra Pritchard
 Project Cat. and No.: BHTM 2 Exosomes and Macrophage Polarization in Lung Cancer
 Place: **HM**
 The Altamont School Grade: 11

Participant: Aditya Singhal
Project Cat. and No.: BI 252 Trichophyton Germination Prevention Using C-AA (A Homogeneous Mixture of Plant-Derived Stearic Acids and Paraffin Triglyceride) Including Attrition and Asphyxiation
Place: **HM**
James Clemens High School Grade: 11

Participant: Caroline Sturgis
Project Cat. and No.: BECB 2 Modeling an Artificial Pancreas
Place: **HM**
St. John Paul II Catholic High School Grade: 10

Participant: Jayden Vanterpool
Project Cat. and No.: BI 254 Can Nanoparticles Prevent Staphylococcus aureus-induced Apoptosis in Endothelial Cells? Part 3
Place: **HM**
Oakwood Adventist Academy Grade: 9

Participant: Deven Wright
Project Cat. and No.: PH 374 Bounciness of a Golf Balls
Place: **HM**
Ramsey High School Grade: 10

Award: U.S. Metric Association

Senior Division

Participant: Mary Alice Jouve
Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet Candidates Using Keck Radial Velocity Data
Place: **1**
McGill-Toolen Catholic High School Grade: 11

Award: U.S. Navy and Marine Corps - Office of Naval Research

Junior Division

Participant: Madhushalini Balaji

Project Cat. and No.: X 120 Preventing Hot Car Deaths

Place: 1

Heritage Elementary School

Grade: 6

Participant: Zachary Ellenburg

Project Cat. and No.: Z 134 Bottle Rockets

Place: 1

Columbia Elementary School

Grade: 5

Participant: Jack Revera

Project Cat. and No.: Z 147 Tracking Asteroids

Place: 1

Horizon Elementary School

Grade: 5

Senior Division

Participant: Jared Callen

Project Cat. and No.: ESSS 33 Developing an Efficient Solution to Personal Computer Security

Place: 1

Wetumpka High School

Grade: 12

Participant: Lucas Lynn

Project Cat. and No.: EM 324 The Hexagonal Weave: Using Hexagonal Engineering to Create a Better Body Armor

Place: 1

Wetumpka High School

Grade: 12

Participant: Aditya Singhal

Project Cat. and No.: BI 252 Trichophyton Germination Prevention Using C-AA (A Homogeneous Mixture of Plant-Derived Stearic Acids and Paraffin Triglyceride) Including Attrition and Asphyxiation

Place: 1

James Clemens High School

Grade: 11

Award: U.S. Space and Rocket Center

Junior Division

Participant: Jack Revera
Project Cat. and No.: Z 147 Tracking Asteroids
Place: 1
Horizon Elementary School Grade: 5

Senior Division

Participant: Kelly Blacksher
Project Cat. and No.: BI 250 The Ocean Acidification Problem
Place: 1
W.P Davidson High School Grade: 12

Award: Von Braun Astronomical Society

Junior Division

Participant: Jack Revera
Project Cat. and No.: Z 147 Tracking Asteroids
Place: 1
Horizon Elementary School Grade: 5

Senior Division

Participant: Mary Alice Jouve
Project Cat. and No.: PH 361 Kepler-Keck, Double-Check: Confirming Kepler Exoplanet
Place: 1 Candidates Using Keck Radial Velocity Data
McGill-Toolen Catholic High School Grade: 11

Award: Yale Science and Engineering Association

Senior Division

Participant: Brody Mickle

Project Cat. and No.: CH 273 Periodicity of Enthalpy Change

Place: 1

Jefferson County International Baccalaureate High School

Grade: 11

Participant: Sarah Van Winkle

Project Cat. and No.: EA 289 Assessing Nutrient & Trace Metal Variation in Surface Water of
the Mobile Bay Watershed

Place: 1

Alabama School of Mathematics and Science

Grade: 11