# **UAB-CORD CARSEF Winners**

March 5, 2011

### **CARSEF Top Honors & Intel Winners**

Oliva Dure  $10^{th} \, \text{Grade}$  The Altamont School Project Title - Brain Plasticity: The Effect of Age (A Two Year Study)

Rakesh Goli 11<sup>th</sup> Grade The Altamont School Project Title – Can a Bacterial Pigment Kill Flesh Eating Bacteria?

> Ellen Price 12<sup>th</sup> Grade

Jefferson County International Baccalaureate
Project Title – Hidden Sounds: The Effect of Cellular Phone Transmission on Human Voice Harmonic
Distribution

Lakshmi Raju 10<sup>th</sup> Grade Alabama School of Fine Arts

Project Title – Development of an Inexpensive Spectrophotometer and a Matlab Spectral Analysis

Program

# **CARSEF Category Winners**

#### **Senior Division**

#### **Behavioral & Social Science**

### 1st Place

Alexis Vance 11<sup>th</sup> Grade

Alabama School of Fine Arts

Project Title - Inside the Mind's Rainbow: A Probability Matrix of Sound and Color Synesthesia

## 2nd Place

Lauren Rabren
12<sup>th</sup> Grade
Wetumpka High School
Project Title – *Power in the Palm of Your Hand* 

### 3rd Place

Addison Pollard & Leah Swinford

11<sup>th</sup> Grade

The Altamont School

Project Title – *Is Perceived Stress During Exams Reflected in Salivary Cortisol Levels?* 

#### **Honorable Mention**

Amber Norrell
12<sup>th</sup> Grade
Wetumpka High School
Project Title – *Did You See That?* 

#### **Honorable Mention**

Trey Beck
10<sup>th</sup> Grade
Glenwood School
Project Title – *The Effect of Gender on Peer Pressure* 

#### **Honorable Mention**

Ruthie Gresham-Jacobs 10<sup>th</sup> Grade The Altamont School

Project Title – Effectiveness of Bullying Prevention Methods on Teenagers

### **Biology**

### 1st Place

Rakesh Goli 11<sup>th</sup> Grade

The Altamont School

Project Title - Can a Bacterial Pigment Kill Flesh Eating Bacteria?

### 2nd Place

Gabriel Spieler 12<sup>th</sup> Grade

Alabama School of fine Arts

Project Title – The Invasion of Chytridiomycosis into Amphibian Populations of North-Central Alabama

## 3rd Place

William Haselden 12<sup>th</sup> Grade Mountain Brook High School

Project Title – Gene Expression Profile during the Development of Epilepsy

### **Honorable Mention**

Noon Eltoum

Islamic Academy of Alabama
Project Title – Which Fraction of the Black Seed Kills Fungus?

#### Honorable Mention

Mary Wills 12<sup>th</sup> Grade

Jefferson County International Baccalaureate
Project Title – The Effects of Antioxidants on the Lactobacillus Casei

### **Honorable Mention**

Hunter Hollis 10<sup>th</sup> Grade Jefferson County International Baccalaureate

Project Title – The Effects of Household Ant Repellents

### Chemistry

### 1st Place

Peter Johnson 12<sup>th</sup> Grade

The Altamont School

Project Title – An Environmentally Friendly Solution for Wastewater Purification and Chemical Disposal:

A UV-Visible Spectrophotometric Study of a Copper Modified Fenton Process

## 2nd Place

Arina Ghosh 12<sup>th</sup> Grade

Alabama School of Fine Arts

Project Title – The Effect of Heavy Metals on Porphyrin Ring compounds Part 3: Leached Mercury into the Base of the Food Chain near Coal Combustion Waste Disposal Sites

## 3rd Place

Malika Shettar 11<sup>th</sup> Grade

**Indian Springs School** 

Project Title – DNA Binding and Cleaving of 1.8 Naphthalimide Nitrogen Onjum Salts (Towards the Development of a Novel Photodynamic Therapy Reagents for Cancer

#### **Honorable Mention**

Laure Bender

9<sup>th</sup> Grade

The Altamont School

Project Title – The Effect of Catechin on Daphnia Heart Rate

#### **Honorable Mention**

Anjali Wagle

12<sup>th</sup> Grade

Alabama School of Fine Arts

Project Title – Plop Plop Fizz Fizz – The Effect of time on Alka – Seltzer Tablets

#### **Honorable Mention**

Marie Reuter

12<sup>th</sup> Grade

Wetumpka High School

Project Title – A Pharmalogical Study on Heart Health Vitamins and Daphnia Magna

### **Energy & Transportation**

### 1st Place

Ben McCormick

12<sup>th</sup> Grade

Jefferson County International Baccalaureate
Project Title – The Burning Proficiency of Cooking Oils for Alternative Fuel Use

### 2nd Place

Douglas Coughlan 10<sup>th</sup> Grade

Jefferson County International Baccalaureate

#### Project Title – DAS ECO: Research in Wind Powered Vehicles

### 3rd Place

Makinsey Parker & Ashley Yates

12<sup>th</sup> Grade

Wetumpka High School

Project Title – Veggie Cars: Transportation of the Future?

#### **Honorable Mention**

Anshuman Bansal
11<sup>th</sup> Grade
Alabama School of Fine Arts
Project title – Carbon Nanotube Based Heterostructure Supercapacitors

### **Engineering**

## 1st Place

Cory Raszeja 12<sup>th</sup> Grade

Alabama School of Fine Arts

Project title – Design and Development of a Structure-based Eco-sensitive Hydroelectric Generator

### 2nd Place

Stirling Buenger & Josiah Hall 12<sup>th</sup> Grade Elmore County High School Project Title – *Metronome Methods* 

## 3rd Place

Kaitlin Moye 10<sup>th</sup> Grade Glenwood School Project Title – *For Quake's Sake* 

#### Honorable Mention

Andrew Sumner
11<sup>th</sup> Grade
Cornerstone Classical Christian Academy

Project Title – To Dim or Not to Dim: Do Dimmer Switches Really Save You Money

#### **Honorable Mention**

Dallas Gentry

10<sup>th</sup> Grade

Jefferson County International Baccalaureate

#### Honorable Mention

Nathan Mims 11<sup>th</sup> Grade Cornerstone Classical Christian Academy Project Title – *The Calorimeter Project* 

#### **Environmental & Earth Science**

### 1st Place

Zack Weston 10<sup>th</sup> Grade Jefferson County International Baccalaureate Project Title – *Water Logged* 

## 2nd Place

Austin Hardman 11<sup>th</sup> Grade Jefferson County International Baccalaureate Project Title – *An Alternative Use for Fall Leaves* 

## <u>3rd Place</u>

Ellis Powell
10<sup>th</sup> Grade
The Altamont School
Project Title – Comprehensive Water Testing of a Major Tributary of the Cahaba River

#### Honorable Mention

David Windham  $12^{th} \, \text{Grade}$ Wetumpka High School
Project Title – Fertilizer: How Much Does it Take?

#### Honorable Mention

Wade Mattox & Aaron Simonton  $10^{th}$  Grade Wetumpka High School Project Title – *Dirt and Water = Clean* 

#### **Honorable Mention**

Susanna Stewart

12<sup>th</sup> Grade

Cornerstone Classical Christian Academy

Project Title – Saving Flowers

### **Mathematics & Computer Science**

### 1st Place

Caitlin Marsh 12<sup>th</sup> Grade

Alabama School of Fine Arts

Project Title – The Development and Intergration of Voice Controlled Software with AgentSheets for Children with Motor Disabilities

### <u>2nd Place</u>

Candice Lacey
12<sup>th</sup> Grade
Wetumpka High School
Project Title – *Music and Math* 

## 3rd Place

James Yarbrough 12<sup>th</sup> Grade

Alabama School of Fine Arts

Project Title – A Mobile Computing Crowd Sourcing Application for Reporting Ecological Disasters

#### **Honorable Mention**

Judi Hakim 12<sup>th</sup> Grade

Alabama School of Fine Arts

Project Title – A Program to Aid Students Learning in Spanish Through Code-switched Text

### **Honorable Mention**

Tyler Lynn 12<sup>th</sup> Grade

Wetumpka High School

Project Title – The Use of Soccer Statistics as a Predictor of World Cup Success

#### **Honorable Mention**

Daniel Cape 11<sup>th</sup> Grade

Wetumpka High School
Project Title – Watch Your Speed

### **Medicine & Health Science**

### 1st Place

Oliva Dure 10<sup>th</sup> Grade

#### The Altamont School

Project Title – Brain Plasticity: The Effect of Age (A Two Year Study)

### 2nd Place

Roxanne Lockhart 12<sup>th</sup> Grade

Alabama School of Fine Arts

Project Title – Effect of Genestein, a Phytoestrogen, on Functional Recovery After Spinal Cord Injury in Males Rats

### 3rd Place

Rachel Gamlin 11<sup>th</sup> Grade

Jefferson County International Baccalaureate

Project Title – Detecting the Presence and Amount of Glycine max Allergen in Different Brands of Baby Food

### **Honorable Mention**

Samantha Richardson
10<sup>th</sup> Grade
Jefferson County International Baccalaureate
Project Title – *Energy Drinks: A Can of Bull* 

#### **Honorable Mention**

Jessica Stone 12<sup>th</sup> Grade Wetumpka High School Project Title – *Mold Patrol* 

#### Honorable Mention

Raven Hatcher 10<sup>th</sup> Grade Jefferson County International Baccalaureate Project Title – *Sweat Poison* 

### **Physical Science**

## <u>1st Place</u>

Lakshmi Raju 10<sup>th</sup> Grade

Alabama School of Fine Arts

Project Title – Development of an Inexpensive Spectrophotometer and a Matlab Spectral Analysis

Program

## 2nd Place

Ellen Price 12<sup>th</sup> Grade

Is County International Baccalaureate

Project Title – Hidden Sounds: The effect of Cellular Phone Transmission on Human Voice Harmonic
Distribution

# 3rd Place

Sam Street & Collis Barefield 11<sup>th</sup> Grade Wetumpka High School Project Title – *Good Vibrations* 

#### **Honorable Mention**

Ethan Fisher 11<sup>th</sup> Grade Pell City High School

Project Title – How Different Frequencies Affect a Non-Newtonian Solution

#### **Honorable Mention**

Jorge Solis
11<sup>th</sup> Grade
Pell City High School
Project Title – Sand Traveling Through Light

### **Honorable Mention**

Rodney Riggs & Hunter Kirby

12<sup>th</sup> Grade

Wetumpka High School

Project Title – *The Physics and Mechanics of Taekwondo* 

# **CARSEF Category Winners**

#### **Junior Division**

#### **Behavioral & Social Sciences**

### 1st Place

Bushra Gamil
7<sup>th</sup> Grade
Islamic Academy of Alabama
Project Title – How Disgusting is That?!

## 2nd Place

Josie Niedermeier
7<sup>th</sup> Grade
The Altamont School
Project Title – Eye Witness Testimony: Guilty or Not Guilty

### 3rd Place

Hanna Szarenski 8<sup>th</sup> Grade Glenwood School Project Title – *Mozart Makes Smart Rats* 

### **Honorable Mention**

Marwa Mekdad 8<sup>th</sup> Grade Islamic Academy of Alabama Project Title – *Subliminal Messaging and Gender* 

#### **Honorable Mention**

Molly Kauper & Katie O'Neal 7<sup>th</sup> Grade The Altamont School Project Title – *Age Affecting Memory* 

#### **Honorable Mention**

Adam Gaylor 8<sup>th</sup> Grade Glenwood School Project Title – *Circadian Rhythms* 

### **Biology**

### 1st Place

Rawdah Elbahrawi 7<sup>th</sup> Grade Islamic Academy of Alabama Project Title – *What do you Taste?* 

### 2nd Place

Tyler Findlater
Glenwood School
Project Title – The War on Germs

### 3rd Place

Danah Mekdad 8<sup>th</sup> Grade Islamic Academy of Alabama Project Title – *Bacteria Be Gone!!* 

### **Honorable Mention**

Lia Barnes 7<sup>th</sup> Grade W.J. Christian Project Title – *Music's Affect on Heart Rate* 

#### **Honorable Mention**

Kaylee Gilchrist & Allie Picou 7<sup>th</sup> Grade Our Lady of the Valley Project Title – *Veggie Tales* 

### **Honorable Mention**

Nicole Beasley 8<sup>th</sup> Grade Glenwood School Project Title – *Which is Cleaner?* 

### Chemistry

## 1st Place

Ali El-Husari 8<sup>th</sup> Grade Islamic Academy of Alabama Project Title – *Acids vs Alkaline* 

### <u>2nd Place</u>

Aliyah Curry 8<sup>th</sup> Grade W.J. Christian Project Title – *Right Thru Me* 

### 3rd Place

Hanna Becerra
6<sup>th</sup> Grade
St. Francis Xavier School
Project Title – 2% Fat in Your Milk

### **Honorable Mention**

Sydney Calhoun
6<sup>th</sup> Grade
The Altamont School
Project Title – *The Burn Rate of Wood* 

### **Honorable Mention**

Allison Wrenn 7<sup>th</sup> Grade W.J. Christian Project Title – *Burn Baby Burn* 

### **Honorable Mention**

Jahmilah Brown 7<sup>th</sup> Grade Phillips Academy Project Title – *Yuck What Happen?* 

### **Energy and Transportation**

## 1st Place

Will Pannell 8<sup>th</sup> Grade The Altamont School Project Title – Assessing the Effects on the Collection of Solar Energy

## 2nd Place

Nicholas Dietschweiler 8<sup>th</sup> Grade Thompson Middle School Project Title – *Bubble, Bubble... This Could Get Me in Big Trouble: H20 Electrolysis* 

# <u>3rd Place</u>

### Ariel Herren 6<sup>th</sup> Grade Williams Intermediate School Project Title – *Is "Bigger" Better?*

### **Engineering**

## 1st Place

Will Damsgard 7<sup>th</sup> Grade

**Thompson Middle School** 

Project Title - Distracted Driving: The Affects of Distractions on Video Game Drivers

### 2nd Place

Annie Boyle 8<sup>th</sup> Grade O.D. Duran Junior High School Project Title – Which Framework Design is More Efficent?

## 3rd Place

David Whaley
7<sup>th</sup> Grade
St. Francis Xavier School
Project Title – *Cracking Domes* 

#### **Honorable Mention**

Samantha Sinak
6<sup>th</sup> Grade
St. Francis Xavier School
Project Title – Thermal Properties of Containers

### <u>Honorable Mention</u> Breanna McPherson

8<sup>th</sup> Grade
St. Francis Xavier School
Project Title – *Bridges: Weights and Deflection* 

#### **Honorable Mention**

Rachel Hixson

8<sup>th</sup> Grade

Thompson Middle School

Project Title – A Hotter Cup of Coffee

### **Environmental and Earth Sciences**

### 1st Place

Rowan Elqishawi 7<sup>th</sup> grade Islamic Academy of Alabama Project Title – *Alabama Shores... Are you Cured* 

# 2nd Place

Ayah Eltoum

8<sup>th</sup> Grade

Islamic Academy of Alabama

Project Title – Herbicidal Mechanism of Tamarind

# 3rd Place

Kaitlin Beyler & Ryan Nichols 8<sup>th</sup> Grade Thompson Middle School Project Title – *Quality H20... Yes or No* 

#### **Honorable Mention**

Andrew Ramey 7<sup>th</sup> Grade St. Francis Xavier School

Project Title – What is the Effectiveness of Chemical vs. Biological Response Techniques on Oil Spills

#### Honorable Mention

Elexia Coleman
8<sup>th</sup> Grade
W.J. Christian
Project Title – Lurking Lead

#### **Honorable Mention**

Joanna Sumner 6<sup>th</sup> Grade

Cornerstone Classical Christian Academy
Project Title – Screening the Sun... Is a Higher SPF More Effective

### **Mathematics & Computer Science**

1st Place

Will Thomason 6<sup>th</sup> Grade Graham Elementary School Project Title – A Game Theory Survey of Monopoly

### 2nd Place

Carson Bruce 8<sup>th</sup> Grade O.D. Duran Junior High School

Project Title – How Much Compression is too Much?

## 3rd Place

Ronni Gagliano 8<sup>th</sup> Grade

O.D. Duran Junior High School
Project Title – Does Color Effect Choice – Mathematical Analysis

#### **Honorable Mention**

Destiny Kelley 5<sup>th</sup> Grade

Williams Intermediate School
Project Title – Study About M & M's How Many Different Colors are in 3 Packs

#### **Medicine & Health Sciences**

## <u>1st Place</u>

Ryan Harmon 7<sup>th</sup> Grade Columbiana Middle School Project Title – *Bacteria Banishers* 

### 2nd Place

Maclaine Fields 7<sup>th</sup> Grade The Altamont School Project Title – *Helmet Safety* 

# <u>3rd Place</u>

Ruaa Aishah 8<sup>th</sup> Grade Islamic Academy of Alabama Project Title – *Please Don't Cry!* 

#### Honorable Mention

Mihir Limdi 7<sup>th</sup> Grade The Altamont School

#### Project Title - Effects of Popular Drinks on Teeth

#### **Honorable Mention**

Eric Freeman 5<sup>th</sup> Grade

Williams Intermediate School Project Title - Do Video Games Have the Power to Relieve Pain?

### **Honorable Mention**

Sarah Powell 7<sup>th</sup> Grade Bessemer Academy Project Title – Does Music Affect a Runners Speed?

### **Physical Sciences**

### 1st Place

**Andrew Robinson** 6<sup>th</sup> Grade W.J. Christian Project Title - Torque AKA Spin

# 2nd Place

Kaylea Lott 8<sup>th</sup> Grade O.D. Duran Junior High School Project Title - Avoid the Shock!

## 3rd Place

Cailan Bevel 7<sup>th</sup> Grade

Thompson Middle School

Project Title – Blowing Bottle Tops: How to Make Music with Water Bottles

#### **Honorable Mention**

Maggie Reynolds 5<sup>th</sup> Grade

Williams Intermediate School

Project Title – Can Supplemental Iron be Removed From Iron-Fortified Cereal for Comparison?

#### **Honorable Mention**

**Alexis Stokes** 7<sup>th</sup> Grade

W.J. Christian

Project Title – It's Getting Hot in Here

### **Honorable Mention**

Paul Boyle III 5<sup>th</sup> Grade

### Williams Intermediate School

Project Title – Buoyancy "Archimedes' Principle" Why do Steel Ships Float When a Steel Ball Cannot?