

2010 UAB-CORD Central Alabama Regional Science & Engineering Fair

Intel International Science & Engineering Fair Winners

(These winners will be able to compete in the Intel International Science & Engineering Fair in San Jose, California on May 9-14, 2010)

Wisdom Chen

12th Grade

Alabama School of Fine Arts

*Project Title: Recognition of Sound Sample Sequences Using Waveform Analysis
Detecting Stutter Words in an Audio Stream*

James Lecroy

12th Grade

Jefferson County International Baccalaureate School

*Project Title: Comparison of Charcoal Produced from the Invasive Pueraria Montana
var. lobata (Kudzu), Oak, Hickory, and a Commercially Available Charcoal*

Lydia McCormick

12th Grade

Jefferson County International Baccalaureate School

*Project Title: The Effect of Honey Hydrogen Peroxide (H₂O₂) and Antioxidants on Small
Hive Beetle (Aethina tumida) Reproduction and Survival*

Mason McFarland

12th Grade

Jefferson County International Baccalaureate School

Project Title: The Potential Allelopathic Suppression of Kudzu

**2010 UAB-CORD Central Alabama Regional Science & Engineering Fair
Senior Division Category Winners**

Behavioral and Social Sciences

1st Place

Skye Jones
Jefferson County IB School
Title – Crossed Up

2nd Place

Ruthie Gresham-Jacobs
The Altamont School
*Title – Attitude Formation:
Racial Stereotypes Among High
School Students When Selecting
College Roommates*

3rd Place

Mandy Brown
Jefferson County IB School
*Title – The Effect of Gender on
Color Preference*

Honorable Mention

Heather Burgess
The Altamont School
*Title – Does Time of Day
Influence Parental Control?*

Honorable Mention

Brandy Scarbrough
Pell City High School
Title – Emotion Including Music

Biology

1st Place

Lydia McCormick
Jefferson County IB School
*Title – The Effect of Honey
Hydrogen Peroxide (H₂O₂) and
Antioxidants on Small Hive
Beetle Reproduction and
Survival*

2nd Place

Mary Willis
Jefferson County IB School
*Title – The Effects of
Antioxidants on Lactobacillus
casei*

3rd Place

Rakesh Goli
The Altamont School
*Title – Can a Pigment Kill
Cancer Cells? A Study on the
Cytotoxic Nature of PVP on
Cancer Cells*

Honorable Mention

Teighlor Driver
Jefferson County IB School
*Title – The Effects of
Temperature on the Vegetation
Completion of Pogonomyrmex
barbatus and Solenopsis invicta*

Honorable Mention

Gregory Lin
Alabama School of Fine Arts
*Title – Diabetes is Molecularly
Linked to Alzheimer's Disease*

Chemistry

1st Place

Arina Ghosh
Alabama School of Fine Arts
*Title – The Effect of Heavy
Metals on Porphyrin Ring
Compounds Part 2: Hg and Pb
Uptake at the Base of the Food
Chain Near Toxic Waste
Disposal Sites*

2nd Place

Amiya Ahmed
Alabama School of Fine Arts
*Title – Epigenetic Reactivation
of Estrogen Receptor Expression
in ER-Negative Breast Cancer
Cells by Dietary Supplements*

3rd Place

Anjali Wagle
Alabama School of Fine Arts
*Title – The Effects of Cooking
Methods on Vitamin C
Concentration Change*

**2010 UAB-CORD Central Alabama Regional Science & Engineering Fair
Senior Division Category Winners**

Honorable Mention

Judi Hakim
Alabama School of Fine Arts
*Title – The Temperature of
Murder*

Honorable Mention

Peter Johnsen
The Altamont School
*Title – The Effects of Phosphine
Ligands on the Behavior of
Rhodium Complexes*

Energy and Transportation

1st Place

Ben McCormick
Jefferson County IB School
*Title – The Proficiency of
Cooking Oils for Alternative
Fuels*

2nd Place

Anshuman Bansal
Alabama School of Fine Arts
*Title – The Use of Carbon
Composites in Fuel Cell Bipolar
Plates*

Engineering

1st Place

Shawn Tuteja
The Altamont School
*Title – Reinforcing Cellulose
Acetate Utilizing Natural Fibers*

2nd Place

Jonathan Brande
Alabama School of Fine Arts
*Title – Effects of Simulated
Martian Storms on Solar Cell
Output*

3rd Place

Wesley Lewis
Jefferson County IB School
*Title – Using Magnetism to Slow
an Elevator and to Generate
Energy*

Honorable Mention

Kenyatta Pointer
Jefferson County IB School
Title – Freezer Alarm

Environmental and Earth Sciences

1st Place

Mason McFarland
Jefferson County IB School
*Title – The Potential
Allelopathic Suppression of
Kudzu*

2nd Place

Emily Duke
Jefferson County IB School
*Title – The Effects of
Ultraviolet-C Light on Coliform
Found in Pond Water*

3rd Place

Paul Styslinger
The Altamont School
*Title – Destroying More Than
Ice: The Effects of Common
Road Deicers on Lumbriculus
variegates*

Honorable Mention

Ramsha Farrukh
Alabama School of Fine Arts
*Title – Lets Sort it Out:
Comparing the Properties of
Recyclable Plastics*

Honorable Mention

Amanda Stewart
Pell City High School
Title – pH and Soil Depth

**2010 UAB-CORD Central Alabama Regional Science & Engineering Fair
Senior Division Category Winners**

Mathematics and Computer Sciences

1st Place

Wisdom Chen
Alabama School of Fine Arts
*Title – Recognition of Sound
Sample Sequences Using
Waveform Analysis Detecting
Stutter Words in an Audio
Stream*

*Pueraria Montana var. lobata
(Kudzu), Oak, Hickory and a
Commercially Available
Charcoal*

2nd Place

Stuart Brockwell
Shades Mountain Independent
Church Academy
*Title – Some Observed Effects of
Electromagnetic Radiation on
Saccaromyces cerevisiae*

Medicine and Health Sciences

1st Place

Olivia Dure
The Altamont School
*Title – Brain Plasticity: The
Effect of Age*

3rd Place

Ellen Price
Jefferson County IB School
*Title – Hidden Sounds:
Harmonic Symmetry of Human
Voices*

2nd Place

Aditi Jani
Alabama School of Fine Arts
*Title – Upregulation of the 1,25-
Dihydroxyvitamin D3 Receptor
in Neonatal Brain Injury*

Honorable Mention

Douglas Coghlan
Jefferson County IB School
Title – Fallin' Out

3rd Place

Christine McBride
Jefferson County IB School
*Title – Orienteering: Finding
the Winning Path*

Honorable Mention

Anthony Webber
Pell City High School
*Nothing But Net: The Science of
Shooting Hoops*

Honorable Mention

Shilan Hameed
Alabama School of Fine Arts
Title – Meet your Meat

Teams

1st Place

Jamale Lockett & Omar
Ismail
Alabama School of Fine Arts
*Title – Model-Driven
Configuration of Automated
Parking Facilities*

Honorable Mention

Mohit Limbdi
The Altamont School
*Title - Influence of Kidney
Function of Warfarin Dose*

2nd Place

Jillian Hamilton &
Karmen Gains
The Altamont School
Title – The Power of Suggestion

Physical Sciences

1st Place

James Lecroy
Jefferson County IB School
*Title – Comparison of Charcoal
Produced from the Invasive*

**2010 UAB-CORD Central Alabama Regional Science & Engineering Fair
Senior Division Category Winners**

3rd Place

Christopher Smith &
Jack Thomas
Huffman High School
Title – Wind Energy

Honorable Mention

Ranesia Forrest &
Tyrone Blackmon
Woodlawn High School
*Title – Is Soil Necessary for
Growing Plants*

**2010 UAB-CORD Central Alabama Regional Science & Engineering Fair
Junior Division Category Winners**

Behavioral and Social Sciences

1st Place

Joseph Lanzi
Our Lady of the Valley School
Title – Number it Up

2nd Place

Lainey Shirey
Duran Jr. High School
Title – Brain vs. Taste

3rd Place

James Barton
Advent Episcopal Day School
Title – Big Gamer Hunting

Honorable Mention

Nydia Saffold
W.J. Christian K-8 School
*Title – Chess and Academic
Scores*

Honorable Mention

Robert Denniston
Advent Episcopal Day School
*Title – Multitasking: Helpful or
Insufficient*

Biology

1st Place

Hunter Morgan
Advent Episcopal Day School
*Title – The Effects of Apple
Cider Vinegar on Chickens*

2nd Place

Martin McGuire
Our Lady of the Valley School
*Title – Dermatology: The Best
Acne Antibiotic*

3rd Place

Morgan Umstead
Advent Episcopal Day School
*Title – What Mosquitoes Really
Want*

Honorable Mention

Melissa Shostak
Duran Jr. High School
Title - The Hidden Horror

Honorable Mention

Taylor Hammonds
Graham Elementary School
*Title – Longer Lasting Long
Stems*

Chemistry

1st Place

Raven McDonald
Huffman Middle School
*Title – How Does a Tooth
Decay?*

2nd Place

Jelani Bender
St. Rose Academy
Title – What's Your Charge?

3rd Place

Ali El-Husari
Islamic Academy of Alabama
Title – Toxic or Eco-friendly?

Honorable Mention

Andrew Guillory
Our Lady of the Valley School
Title – Eggheads

Honorable Mention

Danah Mekdad
Islamic Academy of Alabama
Title – Yeast, Sugars, and CO₂

Energy and Transportation

1st Place

Oliver Marston
Advent Episcopal Day School
Title – Whale Wings

2nd Place

Ariel Herren
Williams Intermediate School
*Title – What Materials Conduct
Electricity the Best*

**2010 UAB-CORD Central Alabama Regional Science & Engineering Fair
Junior Division Category Winners**

3rd Place

Adam Smith
Duran Jr. High School
*Title – Which Paper Airplane
Flies Best*

Honorable Mention

Trey DuBose
Duran Jr. High School
*Title – Estimated Rocket
Altitude vs. Actual Rocket
Altitude*

Honorable Mention

Caleb Wakefield
Clanton Middle School
*Title – Does a Mylar Mirror
Help a Solar Car's Speed?*

Engineering

1st Place

Jacob Herndon
Our Lady of the Valley School
Title – Wings of Fury

2nd Place

Nicholas Dietschweiler
Thompson Middle School
*Title – Generating Electricity
Using Wind*

3rd Place

William Cooper
Advent Episcopal School
Title – Turn that Music Down

Honorable Mention

Michael Wolter
Our Lady of the Valley School
Title – Concrete Possibilities

Honorable Mention

Tyler Newcomb
Williams Intermediate School
*Title – What Hammering Force
is Needed to Nail a Nail into
Different Types of Wood?*

Environmental and Earth Sciences

1st Place

Rowan El-Qishawi
Islamic Academy of Alabama
*Title – Birmingham Water
Under the Lens*

2nd Place

Aarin Huffman
Our Lady of Fatima School
Title – Secret Invaders

3rd Place

Josie Niedermeier
The Altamont School
*Title – Absorption of Water in
Soil*

Honorable Mention

Ayah Eltoun
Islamic Academy of Alabama
*Title – Towards Finding Natural
Herbicide*

Honorable Mention

Madison Beall
Advent Episcopal Day School
*Title – Muddy Water! I Can't
See So Can I Breathe?*

Mathematics & Computer Sciences

1st Place

Matthew Steele
Our Lady of the Valley School
Title – Anchors A-weigh

Medicine and Health Sciences

1st Place

Andrew Robinson
W.J. Christian K-8 School
*Title – Drop it Like It's Hot or
Just A Little Squat*

2nd Place

Griffin Baxley
Advent Episcopal Day School
*Title – Natural Born Stink
Killers*

**2010 UAB-CORD Central Alabama Regional Science & Engineering Fair
Junior Division Category Winners**

3rd Place

Reid Gilliam
Graham Elementary School
Title – Music That Gets You Pumping

Honorable Mention

Tara Markert
Advent Episcopal Day School
Title – A Real Turn Off for Cancer

Honorable Mention

Richard Tubbs
Advent Episcopal Day School
Title – Does Drinking Red Bull Increase Dexterity?

Physical Sciences

1st Place

Ada Griffin
The Altamont School
Title – The “L” Battery

2nd Place

Kylie Victory
Williams Intermediate School
Title – Static Electricity

3rd Place

McKenzie Morrill
Advent Episcopal Day School
Title – Got Center of Gravity

Honorable Mention

Mary Crain
Advent Episcopal Day School
Title - Cheerleaders in Motion

Honorable Mention

Braxton Allen
St. Barnabas Regional School
Title – What Happens When Steel Wool Rusts?

Teams

1st Place

Timothy Foster &
Whitney Hill
W.J. Christian K-8 School
Title – See What I See

2nd Place

Najestyk Jordan &
Justin Benjamin
Hal Henderson Elem. School
Title – Acids, Bases, and Chemical Reactions

3rd Place

Renita Morrison, Myah
Morton, & Sherria
Gibson
J.H. Phillips Academy
Title – Hydroponics Farming

Honorable Mention

Michael Liptrot &
Cedric Riggins
J.H. Phillips Academy
Title – Squirrelcage VAWT

Honorable Mention

Josiah Holsey, Wilbert
Wilson & Eric Grant
J.H. Phillips Academy
Title – Lenz 2 VAWT