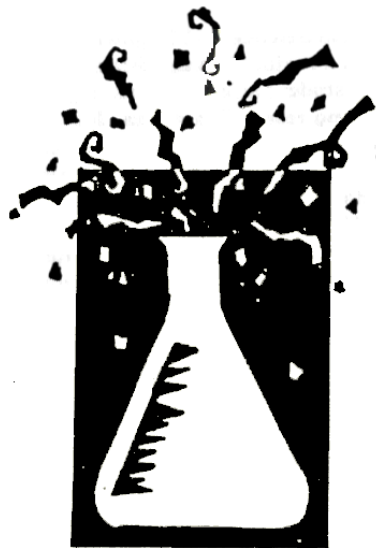


THE 51st ANNUAL OZARKS SCIENCE & ENGINEERING FAIR

HAMMONS STUDENT CENTER
MISSOURI STATE UNIVERSITY

April 5 – April 7, 2011



2011 WINNERS

Sponsored By:

Missouri State University – College of Natural & Applied Sciences
Missouri State University Foundation
Associated Electric Cooperative, Inc.
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Schneider Foundation
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MASTER OF CEREMONIES

MICHELLE NORGRN
EXECUTIVE DIRECTOR
OZARKS SCIENCE & ENGINEERING FAIR

DR. TAMERA JAHNKE, DEAN
COLLEGE OF NATURAL & APPLIED SCIENCES
PRESENTER OF AWARDS



OSEF COMMITTEE MEMBERS

EXECUTIVE DIRECTOR:

CORPORATE DISPLAYS & SPONSORSHIP:

DISPLAY & SAFETY:

ELEMENTARY FAIR:

PLACEMENT AWARDS:

SCIENCE DAY:

SPECIAL AWARDS:

VOLUNTEERS:

WEB PAGE DEVELOPMENT:

MICHELLE NORGRN

JEFF RAWSON

KEN MCCRORY

JESICA DUDLEY

CHARLES DOAN

ADAM CRANE

KATHY SHADE

CHERYL SCHAEFER WRINKLE

SAMANTHA SCHAEFER

CHARLES DOAN

SUE MCCRORY

JESICA DUDLEY



SCIENTIFIC REVIEW COMMITTEE

DR. TOM TOMASI, CHAIR

DR. JACK STEIERT, MICROBIOLOGY

BRIAN HIGH, CHEMISTRY

DR. MATTHEW FANETTI, HUMAN BEHAVIOR

DR. MICHAEL PFANDER, DVM, NONHUMAN VERTEBRATES



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POSITRONIC INDUSTRIES

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2011 AWARDS AND SPONSORS

AMERICAN CHEMICAL SOCIETY – OZARK
SECTION

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THE ASM INTERNATIONAL FOUNDATION

ASSOCIATION OF WOMEN GEOSCIENTISTS

BAKER CHAIR OF INSURANCE/GAMMA IOTA

SIGMA

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AWARD

BROADCOM FOUNDATION

THE IRENE BRUNER MEMORIAL AWARD

CITY OF SPRINGFIELD – SOLID WASTE

DIVISION

COMMUNITY FOUNDATION OF THE OZARKS

DRURY UNIVERSITY

EVANGEL UNIVERSITY

EXPANDING YOUR HORIZONS: WOMEN IN

SCIENCE

GREATER OZARKS AUDUBON SOCIETY

INTEL

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MISSOURI MASTER NATURALISTS

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ENGINEERS

MISSOURI SOLAR ENERGY ASSOCIATION

MISSOURI STATE UNIVERSITY COLLEGE OF

NATURAL & APPLIED SCIENCES

MISSOURI STATE UNIVERSITY DEPARTMENT OF

BIOLOGY

MISSOURI STATE UNIVERSITY DEPARTMENT OF

GEOLOGY, GEOGRAPHY, AND

PLANNING

MISSOURI STATE UNIVERSITY DEPARTMENT OF
PHYSICS, ASTRONOMY & MATERIALS
SCIENCE

MISSOURI STATE UNIVERSITY SOCIETY OF
PHYSICS STUDENTS

THE LOU & NADINE MOORE MEMORIAL
AWARD

MU ALPHA THETA MATHEMATICS HONOR
SOCIETY

NATIONAL OCEANIC & ATMOSPHERIC
ADMINISTRATION

NATIONAL SOCIETY OF PROFESSIONAL
ENGINEERS

OZARKS SCIENCE & ENGINEERING FAIR

OZARKS TECHNICAL COMMUNITY COLLEGE

THE MARY JEAN PLASTER MEMORIAL AWARD

THE ROBERT W. PLASTER MEMORIAL AWARD

POSITRONIC INDUSTRIES

RICOH CORPORATION

THE REGIONAL FAIR DIRECTOR EMERITUS

“SYLVIA SPEAR” AWARD

SCHNEIDER FOUNDATION

SMITH-GLYNN-CALLOWAY FOUNDATION

SOCIETY FOR IN VITRO BIOLOGY

STOCKHOLM JUNIOR WATER PRIZE

THE JAMES K. TICE MEMORIAL TEACHER

AWARD

TROPHIES, ETC.

UNITED STATES AIR FORCE

UNITED STATES ARMY

UNITED STATES METRIC ASSOCIATION

UNITED STATES NAVY/MARINE CORPS

YALE SCIENCE & ENGINEERING ASSOCIATION

SENIOR DIVISION GRAND PRIZE WINNERS & ALTERNATES

(Grand Prize Awards Sponsored by: F & H Food Equipment Company, Jordan Valley Innovation Center, Positronic Industries, Schneider Foundation & Associated Electric Cooperative, Inc. - includes plaques and trip to the Intel International Science & Engineering Fair for the Grand Prize Winners.)

GRAND PRIZE

Chase Herman
Taking the Heat Off
Christina Shepherd
Nixa High School

GRAND PRIZE

Caroline Clothiaux
The Effects of Helial Modification on Simulated ACL Grafts
Todd VanGorden
Greenwood Lab School

GRAND PRIZE

Alice Hwang
Molecular Identification of Dagger Nematodes from Agriculture Soils
Todd VanGorden
Greenwood Lab School

(Grand Prize Alternate Awards sponsored by the Ozarks Science & Engineering Fair; includes \$100 Cash Award.)

1st ALTERNATE

Caressa Willhite
Effects of Protein on Egg Fertilization
Lannie Hinote
Norwood High School

2nd ALTERNATE

Melissa Edwards
Shay Jackson
Plastic Plants: A Study of Phenotypic Response
Pam Probert
Mansfield High School

JUNIOR DIVISION GRAND PRIZE WINNERS

Sponsored by the Ozarks Science & Engineering Fair

(\$75 & plaque to each Junior Grand Prize Winner & Teacher; \$75 to each Junior Grand Prize Alternate & Teacher)

GRAND PRIZE

Caleb Visser
Sparking Solutions
Charlton Dunkel
Waynesville Middle School

ALTERNATE

Mikaela Smith
Does Refrigeration Affect the Bacteria Growth on Different Baby Food
Laura Stroup
The Summit Prep

THE 2011 JUNIOR DIVISION



PLACEMENT AWARD WINNERS!

JUNIOR DIVISION PLACEMENT AWARDS

BEHAVIORAL AND SOCIAL SCIENCES

- 1st Place: Danielle Lenzmeier
Font-Tastic Memorization
John Williamson
Dixon Middle School
- 2nd Place: Enya Eyerman
Making Connections
Lynn Vogel
St. Agnes Middle School
- 3rd Place: Annie Richardson
What Do You See?
Lynn Vogel
St. Agnes Middle School
- 4th Place: Austin Rieth
Studying for Tests
Lynn Vogel
St. Agnes Middle School

BIOCHEMISTRY

- 1st Place: Eric Clarke
Taste and Smell
Laura Stroup
The Summit Prep
- 2nd Place: Ayush Dep
How Do Polyphenols
Affect Plant Growth?
Laura Stroup
The Summit Prep
- 3rd Place: Katie Jackson
Caffeine Concentration
Timothy Hayes
Immaculate Conception
- 4th Place: Ben Keith
Matthew McNabb
Acidic Survivor
Rashel Bussard
Clever Middle School

BOTANY

- 1st Place: Maggie Witt
The Effect of Temperature
on Compost
Decomposition
Miriam Jump
St. Joseph Catholic
Academy
- 2nd Place: Rose Huckfeldt
Venus What Traps?
Laura Stroup
The Summit Prep

BOTANY (cont.)

- 3rd Place: Morgan Lockhart
Orange Vs. Lemon:
Which Will Change
Faster?
Debbie Hawkins
Clever Middle School
- 4th Place: Taylor Blasins
Effects of Miracle Grow
on Marigolds
Lannie Hinote
Skyline Middle School

CHEMISTRY

- 1st Place: Caleb Visser
Sparking Solutions
Charlton Dunkel
Waynesville Middle
School
- 2nd Place: Nathan Abresch
"Wood" It Burn?
Jon Abresch
Wood Elementary
- 3rd Place: Mhari Rowell
Acid and Base Reactions
Rashel Bussard
Clever Middle School
- 4th Place: Jaci McIntosh
Madison Newman
Audrey Wilson
Fire in the Hole
Rashel Bussard
Clever Middle School

EARTH & SPACE SCIENCE

- 1ST Place: Katie Cardoza
Plants & Sun Sound
Laura Stroup
The Summit Prep
- 2nd Place: Chase Merritt
Tornado
Debbie Hawkins
Clever Middle School
- 3rd Place: Colton Kelly
The Effects of Different
Masses on the Impact
Zone
Debra Burgard
Manes R-5 Middle School

ENGINEERING

- 1st Place: Patrick Toplikar
Windmills: Bernoulli vs.
Newton
Miriam Jump
St. Joseph Catholic
Academy
- 2nd Place: Aaron Ledbetter
Steam
Debbie Hawkins
Clever Middle School
- 3rd Place: Sydney Gibbs
Will It Fly?
Lynn Vogel
St. Agnes Middle School
- 4th Place: William Wylie
The Effect of the Sail's
Shape on the Boat
Debra Burgard
Manes R-5 Middle School

ENVIRONMENTAL SCIENCES

- 1st Place: Tim Bentley
How to Evaluate a
Healthy Stream
Timothy Hayes
Immaculate Conception
- 2nd Place: Justin Abresch
Is Your Backyard Safe?
Helen Warren
Waynesville Middle
School
- 3rd Place: Julia Hawes
Eva Holland
How a Man-made
Disaster Can Affect the
Weight of a Feather
Timothy Hayes
Immaculate Conception
- 4th Place: Madi Harris
Diaper Duties: Which
Diaper Holds Up to Its
Duties?
Debbie Hawkins
Clever Middle School

JUNIOR DIVISION PLACEMENT AWARDS

MEDICINE & HEALTH

- 1st Place: Haley Kamykowski
The Comparative Analysis
of Vitamin C in Fruits &
Vegetables
Miriam Jump
St. Joseph Catholic
Academy
- 2nd Place: Faith Herron
Haley Armstrong
Soap Residue
Rashel Bussard
Clever Middle School
- 3rd Place: Zoe Morrison
Linh Luu
Hair-Raising Conclusions
Timothy Hayes
Immaculate Conception
- 4th Place: Jessie Smith
Epidermal Cells: Can
They ID You?
Darlene Henne
Pleasant View Middle
School

MICROBIOLOGY

- 1st Place: Mikaela Smith
Does Refrigeration Affect
the Bacteria Growth on
Different Baby Food?
Laura Stroup
The Summit Prep
- 2nd Place: Hillary Talty
Bacteria vs. Handcleaner
Timothy Hayes
Immaculate Conception
- 3rd Place: Krista Shimizu
Which Bathrooms Harbor
More Bacteria: Girls or
Boys?
Laura Stroup
The Summit Prep
- 4th Place: Libby Nelson
Spoilers
Lynn Vogel
St. Agnes Middle School

PHYSICS

- 1st Place: Alathia Keith
Amelia Curtis
Ireland Clark
Caution: This Will Shock
You!
Debbie Hawkins
Clever Middle School

- 2nd Place: Jesse Laughlin
Soak It Up!
Tim Harrison
Freedom Elementary

- Kayla Waycaster
Tennis Temperature
Amy Waycaster
Wood Elementary

- 3rd Place: Kelsy Arnold
How the Amount of
Surface Area Affects the
Rate of Evaporation of
Water
Cassandra Lane
Freedom Elementary

- Jakob Partee
The Big Dripper
Rashel Bussard
Clever Middle School

- 4th Place: Jack Love
Parachute Drop Time
Laura Stroup
The Summit Prep

- Jessie Pearce
The Science of Magic
Debbie Hawkins
Clever Middle School

ZOOLOGY

- 1st Place: Krista Altman
Got Deer!
Dave Sirett
Dixon Middle School

- 2nd Place: Alexis Carrol
Effects of Type of Bird
Seed on Attraction of
Birds
Lannie Hinote
Skyline Middle School

ZOOLOGY (cont.)

- 3rd Place: Pfifer Duerkop
Effects of Sugar and
Artificial Sweeteners on
Crickets
Laura Stroup
The Summit Prep

- 4th Place: Austin Willhite
Effects of Color on Fish
Attraction
Lannie Hinote
Skyline Middle School

THE 2011 SENIOR DIVISION



PLACEMENT AWARD WINNERS!

SENIOR DIVISION PLACEMENT AWARDS

BEHAVIORAL AND SOCIAL SCIENCES

- 1st Place: Leslie Shaw
The Effect of Distractions on Memory Retention
Peggy Veach
Thayer High School
- 2nd Place: Taylour Arnall
Carlin Thompkins
Distracting Driving: The Effects of Technology on Driving Performance
Tabitha Shaver
Hartville High School
- 3rd Place: Courtney Horton
The Effect of Mentha Piperita on Test Scores
Peggy Veach
Thayer High School
- 4th Place: Juliann Whitaker
Correlation Between Temperature and Mood
Peggy Veach
Thayer High School

BIOCHEMISTRY

- 1st Place: Katelin Vernon
Jenifer Wylie
The Effects of Detergents on Egg Proteins
Tabitha Shaver
Hartville High School
- 2nd Place: Denton Olson
Drug Solubility
Christina Shepherd
Nixa High School
- 3rd Place: Shelby Harvey
Poisonous Perfumes
Christina Shepherd
Nixa High School
- 4th Place: Megan Lynn Vogel
Aspartame: Good for Plants or Not?
Christina Shepherd
Nixa High School

BOTANY

- 1st Place: Melissa Edwards
Shay Jackson
Plastic Plants: A Study of Phenotypic Response
Pam Probert
Mansfield High School
- 2nd Place: Sierra Strunk
Effects of High Temperature During Imbibition
Pam Probert
Mansfield High School
- 3rd Place: Mitchell Johnston
Effects of Directed Music on the Growth of Festuca Arudinacea
Laura Stroup
The Summit Prep
- 4th Place: Cameron Mitchell
The Effects of Chemicals on Seed Germination
Christina Shepherd
Nixa High School

CHEMISTRY

- 1st Place: Wyatt Bake
Synthesis of Useful Products From Waste Cooking Oil
Jim Flora
Pleasant Hope High School
- 2nd Place: Anna Waldschlager
The Use of Transesterification to Determine Heat of Combinatoin of Peanut Oils
Jim Flora
Pleasant Hope High School
- 3rd Place: Daniel Moody
Chemical Action and the Integrity of Wire
Pam Probert
Mansfield High School
- 4th Place: Stephen Trent
Antifungal Drugs as Corrosion Inhibitors
Pam Probert
Mansfield High School

EARTH & SPACE SCIENCES

- 1st Place: Christian Gray
Chitesan Biomaterial Treatments
Pam Probert
Mansfield High School
- 2nd Place: Bryon Stout
Taylor Wehmeyer
Barriers to Soil Runoff
Pam Probert
Mansfield High School
- 3rd Place: Alden Strawhun
Redirection
Christina Shepherd
Nixa High School

ENGINEERING

- 1st Place: Chase Herman
Taking the Heat Off
Christina Shepherd
Nixa High School
- 2nd Place: Vinnie Marco
Man vs. Machine: Development of a Robotic Hand
Tabitha Shaver
Hartville High School
- 3rd Place: Daniel Boone
Sound as Energy
Todd VanGorden
Greenwood Lab School
- 4th Place: Di Zhu
Anti-seismic Properties of Ancient and Modern Chinese Engineering Methods
Laura Stroup
The Summit Prep

SENIOR DIVISION PLACEMENT AWARDS

ENVIRONMENTAL

- 1st Place: Billy Buford
Mallory Hicks
The Effects of Acetaminophen on Raphanus Sativus
Tabitha Shaver
Hartville High School
- 2nd Place: Lindsey Hamilton
Impacts of Instream Gravel Mining
Christina Shepherd
Nixa High School
- Austin Stewart
Reduction of Scale by Use of Green Inhibitors
Pam Probert
Mansfield High School
- 3rd Place: Morgan Durham
The Effects of Acid Rain on Modern Materials
Christina Shepherd
Nixa High School
- Morgan Abbey
How Salinity Affects Artemia Populations
Christina Shepherd
Nixa High School
- 4th Place: Jerica Durham
Viscosity Vs. Surface Tension
David Sirett
Dixon High School
- Madison Neal
The Effects of Construction/Development on Area Streams and Waterways
Christina Shepherd
Nixa High School

MATH

- 1st Place: Michael Mudge
Heather Payne
Can You Hear Me Now?
Fractals in Use
Tabitha Shaver
Hartville High School
- 2nd Place: Rachel Stroder
An Analysis of the Effectiveness of Red Light Cameras in Relation to Population
Todd VanGorden
Greenwood Lab School

MEDICINE AND HEALTH

- 1st Place: Hilliary Shumock
The Effect of Euterpeo Leracea Berry on Mental Clarity
Peggy Veach
Thayer High School
- 2nd Place: Caroline Clothiaux
The Effects of Helial Modification on Simulated ACL Grafts
Todd VanGorden
Greenwood Lab School
- 3rd Place: Chelsea Ehret
The Effects of Nutritional Variation on the Fitness
Peggy Veach
Thayer High School
- 4th Place: Jessica Durham
Determination of Salivary Amylase Levels in Students with Different Amounts of Sleep
Christina Shepherd
Nixa High School

MICROBIOLOGY

- 1st Place: Lauren McCurry
The Effectiveness of Herbal Extracts vs. Growth Inhibitors of Bacillus Subtilis
Jim Flora
Pleasant Hope High School
- 2nd Place: Alice Hwang
Molecular Identification of Dagger Nematodes from Agriculture Soils
Todd VanGorden
Greenwood Lab School
- 3rd Place: Samantha Huckabee
A Comparison of Hand Sanitizer vs. Soap on Bacterial Growth
Peggy Veach
Thayer High School
- 4th Place: Sarah Cook
Karen Ragsdale
Tap, Tap, Tap: Effects of Bottling on Bacterial Contamination
Allen VanNess
Hartville High School

PHYSICS

- 1st Place: Tucker Kirkland
Ryche Hale
Thermal and Combination Effects on Oil Properties
Pam Probert
Mansfield High School
- 2nd Place: Roman Zind
Draggin': The Force of Boats
Christina Shepherd
Nixa High School
- 3rd Place: Sungsoo Kim
Surface Area vs. Volume
Todd VanGorden
Greenwood Lab School
- 4th Place: Cory McCoy
Don't You Hate It When Your Coffee Is Cold?
Todd VanGorden
Greenwood Lab School

SENIOR DIVISION PLACEMENT AWARDS

ZOOLOGY

- 1st Place: Caressa Willhite
Effects of Protein on Egg
Fertilization
Lannie Hinote
Norwood R-1 High School
- 2nd Place: Katlyn Hanson
The Effects of H₂O₂ on
Three Integrated Species
Pam Probert
Mansfield High School
- 3rd Place: Lauren Clark
The Effects of the Type of
Dish Soap on Oil
Christina Shepherd
Nixa High School
- 4th Place: Madison Minter
Which Brand is Better:
Parasiticide
Todd VanGorden
Greenwood Lab School

**THE 2011
JUNIOR & SENIOR
DIVISION**



**SPECIAL AWARD
WINNERS!**

SPECIAL AWARDS

AMERICAN CHEMICAL SOCIETY, OZARKS SECTION

\$75 Gift Cards to Student and Teacher

Senior Division: Daniel Moody
Mansfield High School

AMERICAN SOCIETY OF MAMMALOGISTS

Certificates of Award

Junior Division: Gavin Keith
Skyline Middle School

Krista Altman
Dixon Middle School

THE ASM MATERIALS EDUCATION FOUNDATION

Medallion & Certificate of Award (Medallion will be mailed to recipient)

Senior Division: Sage Kinney
Nixa High School

THE AMERICAN PSYCHOLOGICAL ASSOCIATION

Certificate of Award

Senior Division: Nathan Bogart
Mansfield High School

THE ASSOCIATION OF WOMEN GEOSCIENTISTS

Certificate of Merit

Senior Division: Katie Cardoza
The Summit Prep

BAKER CHAIR OF INSURANCE/GAMMA IOTA SIGMA AWARD

\$50 Cash & Certificate of Achievement

Senior Division: Emily Neal
Mansfield High School

BROADCOM MASTERS AWARD

Certificate, Bumper Sticker and Eligibility to Compete for Additional Prizes

Junior Division: Caleb Visser
Waynesville Middle School

Mikaela Smith
The Summit Prep

Haley Kamykowski
St. Joseph Catholic Academy

Danielle Lenzmeier
Dixon Middle School

Krista Altman
Dixon Middle School

Alathia Keith
Amelia Curtis
Ireland Clark
Clever Middle School

Tim Bentley
Immaculate Conception

Patrick Topliker
St. Joseph Catholic Academy

Katie Cardoza
The Summit Prep

Eric Clarke
The Summit Prep

Maggie Witt
St. Joseph Catholic Academy

IRENE BRUNER MEMORIAL AWARD

\$30 Cash & Certificate of Award

Junior Division: Alexis Carroll
Skyline Middle School

CITY OF SPRINGFIELD – SOLID WASTE DIVISION

Recycled T-Shirt from plastic bottles

Senior Division: Billy Buford
Hartville High School

Mallory Hicks
Hartville High School

CONSTELLATION CLUB – TROPHIES ETC. "AEROSPACE" AWARD

\$25 Cash Award to each

Junior Division: Jaylin Jones
Waynesville Middle School

Ryan Fitzpatrick
St. Joseph Catholic Academy

DRURY UNIVERSITY

3 Hours Undergraduate Credit to each Senior High First Place Award Winner

Senior Division: Leslie Shaw
The Effect of Distractions on Memory Retention
Peggy Veach
Thayer High School

Katelin Vernon
Jennifer Wylie
The Effects of Detergents on Egg Proteins
Tabitha Shaver
Hartville High School

Melissa Edwards
Shay Jackson
Plastic Plants: A Study of Phenotypic Response
Pam Probert
Mansfield High School

Wyatt Bake
Synthesis of Useful Products From Waste Cooking Oil
Jim Flora
Pleasant Hope High School

SPECIAL AWARDS

DRURY UNIVERSITY (cont.)

Senior Division: Christian Gray
Chitesan Biomaterial
Treatments
Pam Probert
Mansfield High School

Chase Herman
Taking the Heat Off
Christina Shepherd
Nixa High School

Billy Buford
Mallory Hicks
The Effects of
Acetaminophen on
Raphanus Sativus
Tabitha Shaver
Hartville High School

Hilliary Shumock
The Effect of Euterpeo
Leracea Berry on Mental
Clarity
Peggy Veach
Thayer High School

Lauren McCurry
The Effectiveness of
Herbal Extracts vs.
Growth Inhibitors of
Bacillus Subtilis
Jim Flora
Pleasant Hope High
School

Tucker Kirkland
Ryche Hale
Thermal and Combination
Effects on Oil Properties
Pam Probert
Mansfield High School

Caressa Willhite
Effects of Protein on Egg
Fertilization
Lannie Hinote
Norwood R-1 High School

EVANGEL UNIVERSITY

*\$1,500 Scholarship to each Senior Division
First Place Winner as Entering Freshmen*

Senior Division: Leslie Shaw
The Effect of Distractions
on Memory Retention
Peggy Veach
Thayer High School

EVANGEL UNIVERSITY (cont.)

Katelin Vernon
Jenifer Wylie
The Effects of Detergents on
Egg Proteins
Tabitha Shaver
Hartville High School

Melissa Edwards
Shay Jackson
Plastic Plants: A Study of
Phenotypic Response
Pam Probert
Mansfield High School

Wyatt Bake
Synthesis of Useful Products
From Waste Cooking Oil
Jim Flora
Pleasant Hope High School

Christian Gray
Chitesan Biomaterial
Treatments
Pam Probert
Mansfield High School

Chase Herman
Taking the Heat Off
Christina Shepherd
Nixa High School

Billy Buford
Mallory Hicks
The Effects of Acetaminophen
on Raphanus Sativus
Tabitha Shaver
Hartville High School

Hilliary Shumock
The Effect of Euterpeo Leracea
Berry on Mental Clarity
Peggy Veach
Thayer High School

Lauren McCurry
The Effectiveness of Herbal
Extracts vs. Growth Inhibitors
of Bacillus Subtilis
Jim Flora
Pleasant Hope High School

Tucker Kirkland
Ryche Hale
Thermal and Combination
Effects on Oil Properties
Pam Probert
Mansfield High School

EVANGEL UNIVERSITY (cont.)

Caressa Willhite
Effects of Protein on Egg
Fertilization
Lannie Hinote
Norwood R-1 High School

*\$2,500 Scholarship to each Grand Prize
Award Winner as Entering Freshmen*

Senior Division: Chase Herman
Taking the Heat Off
Christina Shepherd
Nixa High School

Caroline Clothiaux
The Effects of Helial
Modification on Simulated
ACL Grafts
Todd VanGorden
Greenwood Lab School

Alice Hwang
Molecular Identification of
Dagger Nematodes from
Agriculture Soils
Todd VanGorden
Greenwood Lab School

EXPANDING YOUR HORIZONS: WOMEN IN SCIENCE

\$10 Book Card & Certificate of Award

Junior Division: Mhari Rowell
Clever Middle School

\$25 Book Card & Certificate of Award

Junior Division: Mikaela Smith
The Summit Prep

\$10 Book Card & Certificate of Award

Senior Division: Jerica Durham
Dixon High School

\$25 Book Card & Certificate of Award

Senior Division: Morgan Abbey
Nixa High School

SPECIAL AWARDS

GREATER OZARK AUDOBON SOCIETY "ENVIRONMENTAL AWARENESS AWARD"

One Year Membership in the National Audubon Society & Field Guide

Senior Division: Andrew Cancino
Thayer High School

INTEL "EXCELLENCE IN COMPUTER SCIENCE" AWARD

Certificate of Award & \$200 Cash (to be mailed)

Senior Division: Vinnie Marco
Hartville High School

MISSOURI DEPARTMENT OF CONSERVATION

Posters, Book & Conservation Department Materials

Junior Division: Krista Altman
Dixon Middle School

Senior Division: Lyndsey Hamilton
Nixa High School

MISSOURI MASTER NATURALIST AWARD, JUNIOR DIVISION

Certificate of Award & \$50 Cash (to be split if partners)

Junior Division: Sierra Bishop
Lesley Ek
Clever Middle School

Senior Division: Billy Buford
Mallory Hicks
Hartville High School

MISSOURI SOLAR ENERGY

Solar Calculator

Junior Division: Ryan Fitzpatrick
St. Joseph Catholic Academy

Patrick Topliker
St. Joseph Catholic Academy

MISSOURI SOCIETY OF PROFESSIONAL ENGINEERS

\$100 Cash Award

Junior Division: Aaron Ledbetter
Clever Middle School

MISSOURI STATE UNIVERSITY COLLEGE OF NATURAL AND APPLIED SCIENCES

\$50 Cash Award

Junior Division: Caleb Visser
Waynesville Middle School

Mikaela Smith
The Summit Prep

Senior Division: Chase Herman
Nixa High School

Caroline Clothiaux
Greenwood Lab School

Alice Hwang
Greenwood Lab School

MISSOURI STATE UNIVERSITY DEPARTMENT OF BIOLOGY

Certificates to students & plaques to teachers

Junior Division: Tim Bently
Immaculate Conception

Maggie Witt
St. Joseph Catholic Academy

Hillary Talty
Immaculate Conception

Haley Kamykowsky
St. Joseph Catholic Academy

Krista Altman
Dixon Middle School

Senior Division: Madison Minter
Greenwood Lab School

Melissa Edwards
Shay Jackson
Mansfield High School

Scott Davis
Devon Huff
Mansfield High School

MISSOURI STATE UNIVERSITY DEPARTMENT OF BIOLOGY (cont.)

Hilliary Shumock
Thayer High School

Billy Buford
Mallory Hicks
Hartville High School

\$1,000 Work Study Award

Senior Division: Hilliary Shumock
Thayer High School

Billy Buford
Mallory Hicks
Hartville High School

MISSOURI STATE UNIVERSITY DEPARTMENT OF GEOLOGY, GEOGRAPHY, AND PLANNING

Certificate of Merit and Geode

Senior Division: Christian Gray
Mansfield High School

MISSOURI STATE UNIVERSITY DEPARTMENT OF PHYSICS, ASTRONOMY & MATERIALS SCIENCE

Booklight, Easy Physics Study Guide

Junior Division: Kelsy Arnold
Freedom Elementary

TI-36X Solar Calculator & Triple LED Booklight to each student

Junior Division: Alathia Keith
Amelia Curtis
Ireland Clark
Clever Middle School

Bamboo Computer Pen & Tablet

Senior Division: Sungsoo Kim
Greenwood Lab School

TI-84 Calculator to each student

Senior Division: Tucker Kirkland
Ryche Hale
Mansfield High School

SPECIAL AWARDS

MISSOURI STATE UNIVERSITY SOCIETY OF PHYSICS STUDENTS

Certificate of Award & Paperweight

Senior Division: Daniel Boone
Greenwood Lab School

LOU & NADINE MOORE MEMORIAL AWARD

\$50 Cash Award to the top Junior Division projects covering Education or Special Needs

Junior Division: Helen Halter
St. Agnes School

Samantha Cochran
Skyline Middle School

MU ALPHA THETA NATIONAL MATHEMATICS HONOR SOCIETY

Certificate of Award

Senior Division: Michael Mudge
Heather Payne
Hartville High School

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Certificate of Award, Letter of Congratulations & Medallion

Senior Division: Joseph Velliquette
Nixa High School

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS "INNOVATIVE ENGINEERING" AWARD

Certificate of Award & Lapel Pin

Junior Division: Aaron Ledbetter
Clever Middle School

OZARKS TECHNICAL COMMUNITY COLLEGE

OTCC Hat & Pen to 1st Place Winners

Senior Division: Leslie Shaw
The Effect of Distractions on Memory Retention
Peggy Veach
Thayer High School

OZARKS TECHNICAL COMMUNITY COLLEGE (cont.)

Senior Division: Katelin Vernon
Jenifer Wylie
The Effects of Detergents on Egg Proteins
Tabitha Shaver
Hartville High School

Melissa Edwards
Shay Jackson
Plastic Plants: A Study of Phenotypic Response
Pam Probert
Mansfield High School

Wyatt Bake
Synthesis of Useful Products From Waste
Cooking Oil
Jim Flora
Pleasant Hope High School

Christian Gray
Chitesan Biomaterial Treatments
Pam Probert
Mansfield High School

Chase Herman
Taking the Heat Off
Christina Shepherd
Nixa High School

Billy Buford
Mallory Hicks
The Effects of Acetaminophen on Raphanus Sativus
Tabitha Shaver
Hartville High School

Hilliary Shumock
The Effect of Euterpeo Leracea Berry on Mental Clarity
Peggy Veach
Thayer High School

Lauren McCurry
The Effectiveness of Herbal Extracts vs. Growth Inhibitors of Bacillus Subtilis
Jim Flora
Pleasant Hope High School

OZARKS TECHNICAL COMMUNITY COLLEGE (cont.)

Senior Division: Tucker Kirkland
Ryche Hale
Thermal and Combination Effects on Oil Properties
Pam Probert
Mansfield High School

Caressa Willhite
Effects of Protein on Egg Fertilization
Lannie Hinote
Norwood R-1 High School

RICOH CORPORATION

Certificate of Award

Senior Division: Austin Stewart
Mansfield High School

SCHNEIDER FOUNDATION (in cooperation with the Community Foundation of the Ozarks)

\$200 Cash & Certificate

Junior Division: Caleb Visser
Waynesville Middle School

Patrick Topliker
St. Joseph Catholic Academy

Tim Bentley
Immaculate Conception

Haley Kamykowski
St. Joseph Catholic Academy

Mikaela Smith
The Summit Prep

\$500 Cash & Certificate

Senior Division: Wyatt Bake
Pleasant Hope High School

Chase Herman
Nixa High School

Billy Buford
Mallory Hicks
Hartville High School

SPECIAL AWARDS

SCHNEIDER FOUNDATION (in cooperation with the Community Foundation of the Ozarks) (cont.)

Senior Division: Caroline Clothiaux
Greenwood Lab School

Caressa Willhite
Norwood High School

THE SMITH-GLYNN-CALLOWAY MEDICAL FOUNDATION AWARD

\$200 Cash Award & Certificate

Senior Division: Lauren Hargus
Thayer High School

Caroline Clothiaux
Greenwood Lab School

\$300 Cash Award & Certificate

Senior Division: Hilliary Shumock
Thayer High School

Chelsea Ehret
Thayer High School

SOCIETY FOR IN VITRO BIOLOGY

Certificate and Project Publication in National Report

Senior Division: Samantha Huckabee
Thayer High School

STOCKHOLM JUNIOR WATER PRIZE

Certificate of Award & Promotion to State Competition

Senior Division: Lyndsey Hamilton
Nixa High School

Billy Buford
Mallory Hicks
Hartville High School

UNITED STATES AIR FORCE

Contour Backpack, Charging Stand, Jotter Set & Certificate of Award

Senior Division: Alice Hwang
Greenwood Lab School

Chase Herman
Nixa High School

Caroline Clothiaux
Greenwood Lab School

UNITED STATES ARMY – Excellence in Chemistry & Physical Sciences

Certificate of Award

Senior Division: Ethan Davis
Mansfield High School

UNITED STATES ARMY – Excellence In Engineering

Certificate of Award

Senior Division: Di Zhu
The Summit Prep

UNITED STATES ARMY – Excellence in Environmental Science

Certificate of Award

Senior Division: Billy Buford
Mallory Hicks
Hartville High School

UNITED STATES ARMY – Excellence in Life Sciences

Certificate of Award

Senior Division: Alice Hwang
Greenwood Lab School

UNITED STATES ARMY – Excellence in Mathematics/Computer Science

Certificate of Award

Senior Division: Michael Mudge
Heather Payne
Hartville High School

UNITED STATES ARMY – Award of Excellence

Bronze Medallion

Senior Division: Billy Buford
Mallory Hicks
Hartville High School

UNITED STATES METRIC ASSOCIATION

Certificate of Award

Senior Division: Daniel Moody
Mansfield High School

UNITED STATES NAVY/MARINE CORPS

Certificate of Award & Medal

Junior Division: Caleb Visser
Waynesville Middle School

Jack Love
The Summit Prep

Eric Clarke
The Summit Prep

Krista Altman
Dixon Middle School

Certificate of Award, Medal & \$50 Cash

Senior Division: Rachel Stroder
Greenwood Lab School

Katelin Vernon
Jenifer Wylie
Hartville High School

Vinnie Marco
Hartville High School

Mitchell Gordon
Greenwood Lab School

Taylor Arnall
Carlin Tompkins
Hartville High School

SPECIAL AWARDS

YALE SCIENCE & ENGINEERING ASSOCIATION, INC.

Preliminary Certificate (Actual Certificate & Medallion to be Shipped)

Senior Division: Anna Waldschlager
Pleasant Hope High School

THE ROBERT W. PLASTER MEMORIAL EXCELLENCE IN TEACHING AWARD

\$1,000 Cash Award to the Teacher with the most Placement Awards in the Senior Division

Christina Shepherd

THE MARY JEAN PLASTER MEMORIAL EXCELLENCE IN TEACHING AWARD

\$1,000 Cash Award to the Teacher with the Most Placement Awards in the Junior Division

Laura Stroup

THE REGIONAL FAIR DIRECTOR EMERITUS "SYLVIA SPEAR MEMORIAL AWARD"

\$25 Cash to a First Time Teacher

John Williamson

THE JAMES K. TICE MEMORIAL TEACHER AWARD

This award of \$100 cash and a certificate has been established in memory of James K. Tice, whose constant support and encouragement of Missouri's teachers and students changed so many lives.

Mr. Tice served for many years as a teacher, principal and superintendent of K-12 schools. Even after he retired from public education, Mr. Tice continued his tireless dedication to improving educational opportunities for everyone. He was devoted to creating learning communities, by integrating current and emerging technologies into the classroom.

Mr. Tice was a coach, a teacher, a mentor, a surrogate parent, and a friend. He never failed to say "I appreciate you". It is our hope that the recipient of this award also hears "We appreciate you".

The recipient of this year's award is:

Peggy Veach

THE LAWRENCE E. BANKS, JR., MEMORIAL TECHNOLOGY FOR TEACHERS AWARD

This award of \$100 cash and a certificate has been established in memory of Lawrence E. Banks, Jr., the former Dean of the Missouri State University College of Natural and Applied Sciences and a long-time friend and supporter of the Fair.

Dr. Banks was dedicated to education in the state of Missouri and was a strong proponent of innovative educational projects at the K-12 level as well as higher education. In 2000, he received the Science Teachers' of Missouri Distinguished Service Award in recognition of his tireless support and commitment to science education.

In memory of Dr. Banks' enthusiasm and interest in technology, the recipient of this award is encouraged to integrate technology in their classroom.

The recipient of this year's award is:

Tabitha Shaver

THE POSITRONIC TEACHER AWARD

\$75 Cash Award

This cash award goes to the teacher (Junior or Senior Division) who has the most total entries at the Fair:

Christina Shepherd

OZARKS SCIENCE & ENGINEERING FAIR JUNIOR DIVISION TEACHER AWARDS

This award of a Certificate of Award and a ticket to the Fair Recognition Breakfast is awarded to the teachers of the Junior Division First Place Category winners. The recipients of the Junior Division Teacher Awards for 2011 are:

Miriam Jump
Laura Stroup
Debbie Hawkins
Dave Sirett
John Williamson
Charlton Dunkel
Timothy Hayes

OZARKS SCIENCE & ENGINEERING FAIR SENIOR DIVISION TEACHER AWARDS

This award of a Certificate of Award and a ticket to the Fair Recognition Breakfast is awarded to the teachers of the Senior Division First Place Category winners. The recipients of the Senior Division Teacher Awards for 2011 are:

Peggy Veach
Tabitha Shaver
Pam Probert
Jim Flora
Christina Shepherd
Lannie Hinote

OZARKS SCIENCE & ENGINEERING FAIR JUNIOR DIVISION GRAND PRIZE TEACHER AWARD

This award of a plaque is awarded to the teacher of the Junior Division Grand Prize student project. The recipient of the OSEF Foundation Junior Division Grand Prize Teacher Award for 2011 is:

Charlton Dunkel
Waynesville Middle School

OZARKS SCIENCE & ENGINEERING FAIR SENIOR DIVISION GRAND PRIZE TEACHER AWARD

This award of a plaque is awarded to the teacher(s) of the Senior Division Grand Prize student projects. The recipients of the OSEF Foundation Senior Division Grand Prize Teacher Award for 2011 is:

Christina Shepherd
Nixa High School

Todd VanGorden
Greenwood Lab School

Thank You

The Ozarks Science & Engineering Fair Foundation and Steering Committee would like to recognize those volunteers, both individuals and organizations, without whom this event would not be possible. This week alone, over 600 hours of volunteer time and effort were donated – our deepest thanks and appreciation especially to the following:

- Association of Information Technology Professionals, Student Chapter
- American Chemical Society, Student Chapter
- Dr. Georgianna Saunders' BIO 100 Class
- Sue McCrory's CIS 101, CIS 201, & INS 211 Classes
- Dr. Cheryl Wrinkle's PHY 123 Class
- Missouri State University Panhellenic Organizations
- Mr. Harry Shea's CSC 101 Class
- Ms. Anita Brand's ACC 211 Class
- Dr. Kathy Hughes' BIO 210 Class
- Dr. Judith Meyer's GRY 108 Class

In addition, over 200 judges from local colleges, companies and organizations donated their time and expertise Tuesday evening to judge the approximately 270 projects at this year's Fair. We cannot recognize them all by name, but their efforts are greatly appreciated.

We would also like to extend a very special Thank You to Pearson-Kelly Business Systems for their generous donation of a copier for the duration of the Fair.

In addition, we would like to recognize General Rental for their support of the Fair by providing a substantial number of the folding tables used during the Fair, and Allen Rents for their continuing support of the Fair by providing the decorations for the Award Ceremony.

Finally, we especially want to acknowledge the generous donation contributed by Positronic Industries, Jordan Valley Innovation Center, Associated Electric Cooperative, Schneider Foundation, and F & H Food Equipment Company toward the substantial travel expenses incurred by the Senior Division Grand Prize Winners for travel to the 2011 International Science & Engineering Fair in Los Angeles, California.

Volunteers are the lifeblood of an event of this magnitude. Without you, we could not continue the Fair's tradition of excellence. Thank you!

THE 51ST ANNUAL

**OZARKS SCIENCE AND
ENGINEERING FAIR**



AWARDS CEREMONY

APRIL 7, 2011

6:00 PM

**HAMMONS STUDENT CENTER, MISSOURI STATE
UNIVERSITY**

THE 51ST ANNUAL OZARKS SCIENCE AND ENGINEERING FAIR AWARDS CEREMONY

6:00 PM	WELCOMING REMARKS	MICHELLE NORNGREN, EXECUTIVE DIRECTOR, OZARKS SCIENCE AND ENGINEERING FAIR
	PRESENTATION OF AWARDS	MASTER OF CEREMONIES: MICHELLE NORNGREN, EXECUTIVE DIRECTOR, OZARKS SCIENCE AND ENGINEERING FAIR PRESENTER OF AWARDS: TAMMY JAHNKE, DEAN, COLLEGE OF NATURAL & APPLIED SCIENCES, MISSOURI STATE UNIVERSITY
	PLACEMENT AWARDS	JUNIOR DIVISION
	PLACEMENT AWARDS	SENIOR DIVISION
	SPECIAL AWARDS	
	TEACHER AWARDS	
	GRAND PRIZE AWARD	JUNIOR DIVISION
	GRAND PRIZE AWARD	SENIOR DIVISION

**CONGRATULATIONS TO ALL OF OUR
WINNERS!**

