# OZARKS SCIENCE \& ENGINEERING FAIR 

HAMMONS STUDENT CENTER MISSOURI STATE UNIVERSITY

April 4, 5 \&\& 6, 2006


## 2006 WINNERS

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Clariant
Associated Electric Cooperative, Inc.
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MASTER OF CEREMONIES

MICHELLE NORGREN<br>EXECUTIVE DIRECTOR<br>OZARKS SCIENCE \& ENGINEERING FAIR<br>

## OSEF COMMITTEE MEMBERS

EXECUTIVE DIRECTOR:
SPECIAL AWARDS:
PLACEMENT AWARDS:
SCIENCE DAY:
WEB PAGE DEVELOPMENT \& VOLUNTEERS:

DISPLAY \& SAFETY:
ELEMENTARY FAIR:

MICHELLE NORGREN
CHERYL SCHAEFER
NATHAN WINDEL
MICHELLE NORGREN
SUE MCCRORY
ROCHELLE MCCRORY
HAL HOGUE
HUGH BREWER
ROCHELLE MCCRORY
$\sim 1$

## SCIENTIFIC REVIEW COMMITTEE

DR. TOM TOMASI, CHAIR
DR. JACK STEIERT, MICROBIOLOGY
DR. BRYAN BREYFOGLE, CHEMISTRY
DR. MATTHEW FANETTI, HUMAN BEHAVIOR
DR. MICHAEL PFANDER, DVM, NONHUMAN VERTEBRATES


## MAJOR SPONSORS

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## 2006 AWARD SPONSORS

AMERICAN CHEMICAL SOCIETY - OZARK SECTION
AMERICAN METEOROLOGICAL SOCIETY AMERICAN PSYCHOLOGICAL ASSOCIATION AMERICAN SOCIETY OF MAMMALOGISTS THE ASM INTERNATIONAL FOUNDATION ARCHER ENGINEERING
ASSOCIATION FOR WOMEN GEOSCIENTISTS
BAKER CHAIR OF INSURANCE/GAMMA IOTA SIGMA
CHRISTIAN PUBLISHERS OUTLET
CITY UTILITIES OF SPRINGFIELD
CITY OF SPRINGFIELD - SOLID WASTE MANAGEMENT DIVISION
COMMUNITY FOUNDATION OF THE OZARKS
COMMUNITY HOSPICE OF AMERICA
CONCO COMPANIES
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EXPANDING YOUR HORIZONS: WOMEN IN SCIENCE
GREATER OZARKS AUDUBON SOCIETY
GREENE COUNTY RESOURCE MANAGEMENT DEPARTMENT
HERBERT HOOVER PRESIDENTIAL LIBRARY ASSOCIATION
HORAN \& BECKER
INTEL
INTERNATIONL SOCIETY OF OPTICAL ENGINEERS
IRENE BRUNNER MEMORIAL AWARD
KRAFT FOODS, INC.
MISSOURI DEPARTMENT OF CONSERVATION
MISSOURI SOLAR ENERGY ASSOCIATION
MISSOURI STATE UNIVERSITY COLLEGE OF NATURAL \& APPLIED SCIENCES

MISSOURI STATE UNIVERSITY DEPARTMENT OF BIOLOGY
misSouri state university department of COMMUNICATION SCIENCES \& DISORDERS
MISSOURI STATE UNIVERSITY SOCIETY OF PHYSICS STUDENTS
THE LOU \& NADINE MOORE MEMORIAL AWARD
MU ALPHA THETA MATHEMATICS HONOR SOCIETY
NATIONAL OCEANIC AND ATMOSPHERIC SCIENCE ADMINISTRATION
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
OZARKS SCIENCE \& ENGINEERING FAIR FOUNDATION
POSITRONIC INDUSTRIES
THE REGIONAL FAIR DIRECTOR EMERITUS "SYLVIA SPEAR" AWARD
RICOH CORPORATION
SCHNEIDER FOUNDATION
SMITH-GLYNN-CALLOWAY FOUNDATION SOCIETY OF MANUFACTURING ENGINEERS SPRINGFIELD/GREENE COUNTY ENVIRONMENTAL ADVISORY BOARD
TROPHIES, ETC.
UNITED STATES AIR FORCE
UNITED STATES ARMY
UNITED STATES NAVY/MARINE CORPS
UNITED STATES DEPARTMENT OF HEALTH \& HUMAN SERVICES
WALLACE WEBER MEMORIAL AWARD
WATER ENVIRONMENT FEDERATION WATERSHED COMMITTEE OF THE OZARKS YALE SCIENCE \& ENGINEERING ASSOCIATION


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 to the following:

- Alpha Chi Omega
- Alpha Sigma Alpha
- Beta Beta Beta Biological Honor Society
- Champion Athletes
- Circle K Service Organization
- City Utilities
- Dr. Cheryl Schaefer’s PHY 101 Class
- Dr. Georgianna Saunders’ BIO 100 Class
- Dr. Janice Greene’s BIO 205 Class
- Dr. Melida Gutierrez' GRY 240 Class
- Dr. Sheryl Brahnam's CIS 661 Class
- Gamma Sigma Sigma
- Michelle Hulett's CIS 101 Class
- Missouri State University Biology Department
- Missouri State University Department of Computer Services
- Missouri State University Football Team \& Coaches (Go BEARS!)
- Missouri State University Pre-Medical Society
- Missouri State University Wrestling Club
- O’Reilly Auto Parts
- Sigma Alpha Lambda
- Sigma Kappa
- Sigma Pi - Alpha Rho Chapter
- Society of Manufacturing Engineers, Student Chapter
- Sue McCrory's CIS 101 Class
- The Student Society of Cell \& Molecular Biologists

In addition, nearly 200 judges from local colleges, companies and organizations donated their time and expertise Tuesday evening to judge the over 600 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 Maschino's for their generous donation of 52 umbrella bases, and to Robinett Business Systems for their generous donation of a desktop copier for the duration of the Fair.

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

## SENIOR DIVISION GRAND PRIZE WINNERS

## AND ALTERNATES

(Grand Prize Awards Sponsored by: Kraft Foods, Inc., 3M Corporation,
Clariant, \& Associated Electric Cooperative, Inc., \& includes plaques for the Grand Prize Winners and Teachers.)

GRAND PRIZE Sunny Qiu
Regulate CGRP Expressions In DMS Cell/Grape Extract
Greenwood Laboratory School
Hugh Brewer
GRAND PRIZE Kati Sherman
Effects Of Hormone On Carbohydrate Use
Mansfield High School
Pam Probert
1st ALTERNATE Cassie Sanders
Effects of Coating Treatments on Rate of Corrosion When
Aquatically Submerged
Mansfield High School
Pam Probert
2nd ALTERNATE Justin Haseltine
Steganography: Encoding/Decoding Data With Music Greenwood Laboratory School
Hugh Brewer
JUNIOR DIVISION GRAND PRIZE WINNERS
AND ALTERNATE
(The Junior Division Grand Prize Award is Sponsored by Conco Companies: it includes a $\$ 75$ Cash Award \& Plaque for the Grand Prize Winner \& Teacher, plus a $\$ 75$

Cash Award for the Grand Prize Alternate \& Teacher.)

GRAND PRIZE

ALTERNATE
Anisha Rimal - Sea Urchins \& the Environment
Cherokee Middle School
Kevin Youngblood
Rebecca Mayus - Harnessing Wind Power
Immaculate Conception
Heather Cook

## THE 2006 JUNIOR DIVISION



PLACEMENT AWARD WI NNERS!


## JUNIOR DIVISION PLACEMENT AWARDS

ENGINEERING

1st Place: | Rebecca Mayus |  |
| :--- | :--- |
|  | Harnessing Wind Power |
|  | Immaculate Conception |
|  | Heather Cook |

2nd Place: Joseph Huber \& Grant Beck Can You Hear Me Now? Marshfield Junior High Kimberly Potter

Tom Pesek
Hook, Line \& Sinker
St. Agnes Middle School
Lynn Vogel
3rd Place: Monica Bird
What's Cooking
St. Agnes Middle School Lynn Vogel

Jacob Arnold
Table the Issue
St. Agnes Middle School Lynn Vogel

4th Place: Natalie Smid Levers' Rule Immaculate Conception Heather Cook

Michael DeVoss
Dropping to a Conclusion St. Agnes Middle School Lynn Vogel

## ENVIRONMENTAL SCIENCES

1st Place: Amy Richter
Leaded Land Cherokee Middle School Jackie Hutcherson

2nd Place: Lee Chappell
Scum Buster
Cherokee Middle School
Jackie Hutcherson

David DeVoss
Roaring Rivers
St. Agnes Middle School Lynn Vogel

3rd Place: Katie Renkoski
Greasy Gridlock
St. Agnes Middle School Lynn Vogel

## ENVIRONMENTAL SCIENCES (cont.)

3rd Place: Shiny Park<br>Survivor<br>Cherokee Middle School Jackie Hutcherson

4th Place: Jodi McDowell
Effects of Chlorine Bleach on
Three Types of Mold
Mansfield Middle School John Hinsley

Rachel Herron
Ho, Ho, Ho In Your Wallet
St. Agnes Middle School
Lynn Vogel

## MATHEMATICS

1st Place: Toryana Vestal
Beating the Odds
Pleasant View Middle School
Darlene Henne
2nd Place: Brian Nguyen
Key of Mistakes
Cherokee Middle School
Jackie Hutcherson
3rd Place: Niko Temofeew
Round Dice - Do They Have the
Same Probability?
Cherokee Middle School
Colleen Merrigan
4th Place: Austin Craven
Operation Overload
Pleasant View Middle School
Darlene Henne
MEDICINE AND HEALTH
1st Place: Danielle Smulczenski
Autism's Answer to Weight
Training
Cherokee Middle School
Jackie Hutcherson
2nd Place: Ashley Boshe
Cardiac Kick
Marshfield Junior High
Aaron Tillman
Jodie Putnam
Do You C What I C
Pleasant View Middle School Darlene Henne

## MEDICINE AND HEALTH (cont.)

3rd Place: Stephanie Baker
Battle of the Pulses
Billings Junior High
Carolyn Mulkey
Ariana Davis
Effects of Different Drinks on
Pulse Rate
Skyline Junior High
4th Place: Rachael Beard
All I Got for Christmas Was a
Heart Attack
St. Agnes Middle School
Lynn Vogel
Stuart Jump
Does Your Sunblock Block?
St. Joseph Middle School
Kathryn Keller

## MICROBIOLOGY

1st Place: Candace Beach
Wash 'em Clean 'em Cherokee Middle School
Jackie Hutcherson
2nd Place: Brooke McMillin
Are You Eating Bacteria?
Cherokee Middle School
Jackie Hutcherson
3rd Place: Spenser Price
Fast Food Restaurants
Cherokee Middle School
Colleen Merrigan
4th Place: Erin Hargis
Will $\mathrm{H}_{2} \mathrm{O}$ Make Mold Grow?
St. Agnes Middle School
Lynn Vogel

## PHYSICS

1st Place: Leah Largenberg Cool Magnets
St. Agnes Middle School Lynn Vogel

2nd Place: Andrew Polk
Lon Bridge is Falling Down
Ozark Upper Elementary
Betty Polk

| JUNIOR DIVISION PIACEM |  |  |  |
| :---: | :---: | :---: | :---: |
| PHYSICS | cont.) | ZOOLOGY (cont.) |  |
| 2nd Place: | Jessica Bowman | 3rd Place: | Hannah Green <br> Do Box Turtles See in Color? <br> Marshfield Junior High <br> Kimberly Potter |
|  | Fun With Sound |  |  |
|  | Immaculate Conception |  |  |
|  | Heather Cook |  |  |
|  | Tim Camey | $4^{\text {th }}$ Place: | Josh Knox |
|  | Battle of the Blades |  | Heart to Heart: Dog vs. Human |
|  | St. Agnes Middle School |  | St. Joseph Middle School |
|  | Lynn Vogel |  | Kathryn Keller |
| 3rd Place: | Paul Somers |  |  |
|  | Vibration Sensation |  |  |
|  | Cherokee Middle School |  |  |
|  | Jackie Hutcherson |  |  |
|  | Lauren Robinson \& Celsey Cleir |  |  |
|  | Boing! |  |  |
|  | Marshfield Junior High |  |  |
|  | Kimberly Potter |  |  |
|  | Hannah Finch |  |  |
|  | Dimples Decide the Dots |  |  |
|  | St. Agnes Middle School |  |  |
|  | Lynn Vogel |  |  |
| 4th Place: | Maggie Bolls The Perfect Aerial Floor St. Agnes Middle School Lynn Vogel |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  | Dylan Wyatt |  |  |
|  | Trebuchets in Action |  |  |
|  | Springfield Lutheran |  |  |
|  | Josh Wanner |  |  |
|  | Ashley Piland |  |  |
|  | Effects of Epoxy on a |  |  |
|  | Reinforcement Agent of |  |  |
|  | Composite Wood Mansfield Middle School |  |  |
|  |  |  |  |
|  | Mansfield Middle School Jon Hinsley |  |  |
| ZOOLOGY |  |  |  |
| 1st Place: | Anisha Rimal |  |  |
|  | Sea Urchins \& the Environment |  |  |
|  | Cherokee Middle School |  |  |
|  | Kevin Youngblood |  |  |
| 2nd Place: | Briana Bartow |  |  |
|  | One Fish, Two Fish, Catish, |  |  |
|  | Tunatish |  |  |
|  | Marshfield Junior High |  |  |
|  | Aaron Tillman |  |  |

## THE 2006 SENIOR DIVISION



## PLACEMENT AWARD WINNERS!

| SHNIOR DIVISION PIACHMENTEAS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BEHAVIORAL AND SOCIAL SCIENCES |  | BIOCHEMISTRY (cont.) |  | $\frac{\text { CHEMISTRY (cont.) }}{\text { 3rd Place: Mathew Carra }}$ |  |
|  |  | 3rd Place: | Matthew Carra |
| 1st Place: | Cody Mills <br> How ESRB Ratings Affect <br> Human Heart Rate During <br> Video Game Play <br> Hillcrest High School <br> Jennifer Saylor |  | 4th Place: | Kristin Helsey | Crystal Growth \& Cooling |
|  |  |  |  | Butterfat in Milk Based Upon | Rate: Influence of Polarity on |
|  |  |  |  | Lactation Stage \& Age | NaCl Crystallization Patterns |
|  |  |  |  | Hartville High School | Kickapoo High School |
|  |  |  |  | Luke Boyer | Rick Snyder |
|  |  |  |  |  |  |
|  |  | BOTANY |  | COMPUTER SCIENCE |  |
| 2nd Place: | Jillian Gerkey |  |  |  |  |
|  | How Does Music Affect | 1st Place: | Brooke Lawrence The Effects of Salt Tolerance in Transgenic Plants Greenwood Lab School Hugh Brewer | 1 ${ }^{\text {st }}$ Place: | Justin Haseltine |
|  | Behavior of Lemurs? |  |  |  | Steganography: <br> Encoding/Decoding Data with Music |
|  | Hillcrest High School |  |  |  |  |
|  | Kim Redinger |  |  |  | Music |
|  |  |  |  |  | Greenwood Lab School |
|  | Cody Ary |  |  |  | Hugh Brewer |
|  | Can Kids Tell the Difference | 2nd Place: | Connie Quirk |  |  |
|  | Between Candy \& Medicine |  | Effects of a Competitive Seed | $2^{\text {nd }}$ Place: ${ }^{\text {J }}$ | James Peter Hansen Strobe Circuit Programming for Acoustical Analysis |
|  | Thayer High School |  | on MMHC of Pea Seeds |  |  |
|  | Peggy Veatch |  | Mansfield High School |  |  |
|  |  |  | Pam Probert |  | Glendale High School |
| 3rd Place: | Amanda Sheets |  |  |  | Charles Rey |
|  | Stereotyping Occupation and | 3rd Place: | Shay Sechler, Logan |  |  |
|  | Wages Based Upon Gender \& |  | Woodmansee \& Brett | $3{ }^{\text {rd }}$ Place: | Bobby Cabellis \& Elliot Johns The Effect of Controller Size |
|  | Appearance |  | Bethurem |  |  |
|  | Hartville High School |  | Slime Time |  | on Game Play |
|  | Luke Boyer |  | Pleasant Hope High School Gail Emrie |  | Mansfield High School Pam Probert |
|  | Ashleigh Fees \& Beatrix |  |  |  |  |
|  | Teudan | 4th Place: | Brice Matlock \& Britany |  |  |
|  | Fair Froot Loops |  | Keeling | EARTH/SPACE SCIENCE |  |
|  | Hillcrest High School | The Effects of Endocrine |  | 1st Place: | Katie Click |
|  | Jennifer Saylor |  | Disruptors on the Growth |  | Glacier Mass Balance Effects |
|  |  |  | Patterns of Zea mays |  | on Seismic Activity |
| 4th Place: | Kala VanHuss | Mansfield High School |  |  |  |
|  | Colorful Math |  | Pam Probert |  | Rick Snyder |
|  | Hillcrest High School |  |  |  |  |
|  | Kim Redinger | CHEMISTRY |  | 2nd Place: | Toby Shelhamer Lettuce Bioassay on Lead |
|  |  |  |  |  |  |
| BIOCHEMISTRY |  | 1st Place: | Brian Kincaid |  | Contaminated Soils |
|  |  |  | Regneration of lon-Selective |  | Mansfield High School Pam Probert |
| 1st Place: | Chelsea House |  | Electrodes |  |  |
|  | Effects of Sunflower Extract |  | Greenwood Lab School |  |  |
|  | on Lettuce Seed |  | Hugh Brewer | 3 3rd Place: | Wes Hollingsworth Spectrophotometric Dye |
|  | Mansfield High School |  |  |  |  |
|  | Pam Probert | 2nd Place: | Seth Greer |  | Trace to Determine |
|  |  |  | Is Fat What Its At? |  | Groundwater Movement Pleasant Hope High School Gail Emrie |
| 2nd Place: | Katie Sherman |  | Marshfield High School |  |  |
|  | Effects of Hormones on |  | John Sode |  |  |
|  | Carbohydrate Use |  |  |  |  |
|  | Mansfield High School |  | Alex Minton Chemical Composition by Optical Behavior | $4^{\text {th }}$ Place: | Josh Priest <br> Does Soil Type Affect Erosion Thayer High School |
|  | Pam Probert |  |  |  |  |
|  |  |  |  |  |  |
| 3rd Place: Jeffery Brandhost |  |  | Glendale High School | Peggy Veatch |  |


| 1st Place: | Victoria Smiley |
| :---: | :---: |
|  | Sub-Zero Temperature |
|  | Independent Concrete |
|  | Glendale High School |
|  | Charles Rey |
| 2nd Place: | Cassie Sanders |
|  | The Effects of Coating |
|  | Treatments on the Rate of |
|  | Corrosion When Aquatically |
|  | Submerged |
|  | Mansfield High School |
|  | Pam Probert |
| 3rd Place: | Sarah Beasley |
|  | Radiation Absorption |
|  | Differences in Floor Design |
|  | Central High School |
|  | Charles Beasley |
| 4th Place | Andrew Lambeth |
|  | Fooling a Speed Radar |
|  | Hilllcrest High School |
|  | Jennifer Saylor |
| ENVIRONMENTAL SCIENCES |  |
| (sponsored by Kraft Foods, Inc.) |  |
| 1st Place: | Sebastian Karuppan \& Rudy |
|  | Fotsch |
|  | Statistical Analysis of Ocean |
|  | Water Quality |
|  | Glendale High School |
|  | Fred Fotsch |
| 2nd Place: | Andrew Robertson |
|  | Alluvial Sediment Studies of the Sequiota Spring Complex |
|  | Glendale High School |
|  | Charles Rey |
| 3rd Place: | Joseph Seagrave |
|  | Radiation Levels Found |
|  | Around a Coal Power Plant |
|  | Greenwood Lab School |
|  | Hugh Brewer |
| 4th Place: | Zach Mills |
|  | Which Types of Oil Yields the |
|  | Most Biodiesel? |
|  | Hillcrest High School |
|  | Jennifer Saylor |

## MATHEMATICS

1st Place: Kristin Campbell Unbalanced Quadtrees Mansfield High School
Pam Probert
2nd Place: Charlie DeWitt
The Mathematical Analysis of Structural Manipulation for Displacement
Glendale High School
Charles Rey
3rd Place: Ryan Veatch
Mathematical Patterns in
Bach's Preludes
Thayer High School
Peggy Veatch
4th Place: Shawna Burkett
The Effect of Music on Mathematical Computations
Thayer High School
Peggy Veatch

## MEDICINE AND HEALTH

1st Place: Brittany Bauer
Structural Support for the
Prevention of Traumatic
Dorsiflexion
Glendale High School
Charles Rey
2nd Place: Sunny Qui
Regulate CGRP Expression in
DMS Cell/Grape Extract
Greenwood Lab School
Hugh Brewer
3rd Place: Rajidivya Viswanathan Blindness in Premature Infants: A Critical Analysis
Springfield Catholic HS
Lynn Vogel
4th Place: Zenobia Rose Tucker
Grass or Grain: Which Beef is Better?
Greenwood Lab School
Hugh Brewer

## MICROBIOLOGY

1st Place: Christine Crain
Effects of Antibiotics on Normal Digestive Bacteria Count
Hartville High School
Luke Boyer
2nd Place: Evelyn Moncada
Effects of Parasite Control
Chemicals Residue in Animal
Waste Used as Organic
Fertilizer
Hartville High School
Luke Boyer
3rd Place: Paige Hoover
Effects of UV Light on Helio
Bacteria
Mansfield High School
Pam Probert
4th Place: Cedric Cogell
Urea Lethality on
Epidermophyton
Glendale High School
Charles Rey

## PHYSICS

1st Place: Michael Cook
Intensity of Single Bubble Sonoluminescence Greenwood Lab School Hugh Brewer

2nd Place: Jon Michael Reese
Using Long Chain Fatty Alcohols to Slow Evaporation Greenwood Lab School Hugh Brewer

Samantha McBaine
A Cooling Unit Using
Evaporation
Hartville High School
Luke Boyer
3rd Place: Logan Bowles
Manipulation of the Ballistics
Coefficient for Trajectory
Accuracy
Glendale High School
Charles Rey

## SENIOR DIVISION PLACEMENT AWARDS

## PHYSICS (cont.)

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3rd Place: Ryan Glasstetter
    Acoustical Application of the
    Bernoulli Principle
    Glendale High School
    Charles Rey
4th Place: Ross Chaffin
    Vortex Tube: Heating and
    Cooling
    Greenwood Lab School
    Hugh Brewer
    Jaclyn Feemster
    Pitch It, Smack It, Score It
    Hillcrest High School
    Kim Redinger
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## ZOOLOGY

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1st Place: Sam Chaffin
Reservatrol \& Longevity in
Drosophilia
Greenwood Lab School
Hugh Brewer
2nd Place: Chelsea Jones
The Effects of Naturally
Occurring Insecticides on
Copepods
Mansfield High School
Pam Probert
3rd Place: Andy Morris \& Marcus
Sherman
The Effects of Creatine on
The Regeneration \& Retention
of Planaria
Mansfield High School
Pam Probert
4th Place: Jessica Biekert
The Development of a \(\mathrm{CO}_{2}\)
Saturated Wheat Storage
Container to Reduce
Infestation of the Sitophilus
granarius
Hartville High School
Luke Boyer
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## THE 2006 JUNIOR \& SENIOR DIVISION <br>  <br> SPECIAL AWARD WINNERS!

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AEROSPACE SUMMIT - CONSTELLATION CLUB - TROPHIES ETC. |  | AMERICAN METEROLOGICAL SOCIETY (cont.) |  | $\begin{aligned} & \text { THE ASSOCIATION OF WOMEN } \\ & \text { GEOSCIENTISTS } \end{aligned}$ |  |
| Plaque \& \$25 Cash |  | Certificate of Award |  | Certificate of Recognition |  |
| Junior Division: | Matthew Oelschlaeger How Does Radiation \& Solar Energy Affect Weather? | Senior Division: | Kayla Withers <br> Sun Beams <br> Billings High School | Senior Division: | Katie Click <br> Glacier Mass Balance Effects on Seismic Activity Kickapoo High School |
|  | St. Agnes Middle School | ASSOCIATION AND TEACHERS OF PSYCHOLOGY IN SECONDARY SCHOOLS |  | BAKER CHAIR OF INSURANCE/GAMMA |  |
|  | Katelyn Boyd \& Megan Tosh |  |  | IOTA SIGMA AWARD |  |
|  | Twist This Pipkin Middle School | Certificate of Award |  | \$25 Cash and Certificate of Achievement |  |
| Senior Division: | Matthew Carra | Senior Division: | Cody Ary Can Kids Tell the | Senior Division: | Cassie Sanders Effects of Coating |
|  | Crystal Growth \& Cooling |  | Difference Between |  | Treatments on Rate of |
|  | Rate |  | Candy \& Medicine? |  | Corrosion When |
|  | Kickapoo High School |  | Thayer High School |  | Aquatically Submerged Mansfield High School |
|  | Katie Click | AMERICAN SOCIETY OF MAMMALOGISTS |  |  |  |
|  | Glacier Mass Balance |  |  | IRENE BRUNER MEMORIAL AWARD |  |
|  | Effects on Seismic Activity | Certificates of Award |  |  |  |
|  | Kickapoo High School |  |  | \$25 Cash and Certificate (if given to partners, cash prize will be divided equally) |  |
| AMERICAN CHEMICAL SOCIETY, OZARKS |  | Junior Division: | It's Getting Hot Under |  |  |
| SECTION |  |  | Here | Junior Division: | Noelle Brown |
|  |  |  | Cherokee Middle School |  | Got Aspirin? |
| The Ozark ACS Junior Division Award of \$50 |  | Senior Division: Sara Cady |  |  | St. Agnes Middle School |
| Cash and a Certificate Award is given to the student and a \$50 gift certificate to Flinn |  |  |  |  |  |
|  |  | Senior Division. | Will Rats Cooperate With |  | Reagan Bachus pH of Body Soaps Hickory Hills MS |
| Scientific for the sponsoring teacher. |  |  | Each Other? <br> Greenwood Lab School |  |  |
| Junior Division: | Danielle Parker |  |  |  |  |
|  | Measuring Water | THE ASM INTERNATIONAL FOUNDATION |  | CHEMICAL COMMUNICATION AWARD |  |
|  | Billings High School Carolyn Mulkey | Certificate of Award |  | \$10 Cash Award |  |
| The Ozark ACS Senior Division Award of $\$ 100$ Cash and a Certificate Award is given to the student and a $\$ 50$ gift certificate to Flinn Scientific for the sponsoring teacher. |  | Senior Division: | Victoria Smiley | Senior Division: | Ryan Wright <br> The Effects of Oxytocin on the Human Physiology Mansfield High School |
|  |  | Sub-Zero Temperature Independent Concrete |  |  |
|  |  | Glendale High School |  |  |
| Senior Division: | Brian Kincaid |  | THE ARCHER ENGINEERS AWARD |  | CITY OF SPRINGFIELD - SOLID WASTE |  |
|  | Regeneration of lon- |  |  |  | DIVISION |  |
|  | Selective Electrodes | \$35 Cash Award |  |  |  |
|  | Greenwood Lab School |  |  | Recycled Plastic | oda Bottle T-Shirt |
|  | Hugh Brewer | Senior Division: | Victoria Smiley |  |  |
|  |  |  | Sub-Zero Temperature | Senior Division: | Shawn Sigrest |
| AMERICAN METEROLOGICAL SOCIETY |  |  | Independent Concrete |  |  |
| Certificate of Award |  |  | Glendale High Sc |  | on an Ozark Stream Pleasant Hope HS |
| Senior Division: | Samantha McBaine |  |  |  |  |
|  | A Cooling System Using |  |  |  | Zach Mills |
|  | Evaporation |  |  |  | Which Type of Oil Yields |
|  | Hartville High School |  |  |  | the Most Biodiesel? |
|  |  |  |  |  | Hillcrest High School |

CITY OF SPRINGFIELD - SOLID WASTE DIVISION (cont.)

Senior Division: Aaron Baker
The Incorporation of Tires in Construction Materials Hartville High School

## CITY UTILITIES OF SPRINGFIELD

\$200 Cash Award
Junior Division: Peter Somers Gas Is A Blast Cherokee Middle School

$\begin{array}{ll}\text { Senior Division: } &$|  Joseph Seagrave  |
| :--- |
|  Radiation Levels Fou  |
|  |
|  |
|  |
|  |
|  |
|  |
|  Pround a Coal Powe  |
|  Greenwood Lab Sch  |
|  THE DISCOVERY CHANNEL YOUNG  |
|  SCIENTIST CHALLENGE  |\end{array}

2006 DCYSC Entry Booklet, 2006 DCYSC Certificate of Recognition, and 2006 DCYSC Lapel Pin

| Junior Division: | Megan Hamilton <br> Clever Middle School |
| :--- | :--- |

Michael Lewis
St. Agnes Middle School
Wesley Hughes
St. Agnes Middle School
Reagan Bachus
Hickory Hills MS
AnnMarie Banasik
St. Agnes Middle School
Anna Hyden
Pleasant View MS
Emily Eck
St. Agnes Middle School
Emily Loethen Immaculate Conception

Lacey Bobbett
Immaculate Conception
Joshua Farrar
Cherokee Middle School

THE DISCOVERY CHANNEL YOUNG SCIENTIST CHALLENGE (cont.)

Junior Division: Elizabeth Roberts
Cherokee Middle School
Cody Clements
St. Joseph Middle School
Katelyn Boyd
Pipkin Middle School
Megan Tosh
Pipkin Middle School
Kaitlyn Hunter
Marshfield Junior High
Rebecca Mayus
Immaculate Conception
Joseph Huber
Marshfield Junior High
Grant Beck
Marshfield Junior High
Tom Pesek
St. Agnes Middle School
Amy Richter
Cherokee Middle School
Lee Chappell
Cherokee Middle School
David DeVoss
St. Agnes Middle School
Toryana Vestal
Pleasant View MS
Brian Nguyen
Cherokee Middle School
Danielle Smulczenski
Cherokee Middle School
Ashley Boshe
Marshfield Junior High
Jodie Putnam
Pleasant View MS
Candice Beach
Cherokee Middle School
Brooke McMillin
Cherokee Middle School

THE DISCOVERY CHANNEL YOUNG SCIENTIST CHALLENGE (cont.)

| Junior Division: | Leah Largenberg <br> St. Agnes Middle School |
| :--- | :--- |
|  | Andrew Polk <br> Ozark Upper Elementary |
|  | Jessica Bowman |
| Immaculate Conception |  |
|  | Tim Camey |
| St. Agnes Middle School |  |
|  | Anisha Rimal |
| Cherokee Middle School |  |
|  | Briana Barton |
| Marshfield Junior High |  |

## DRURY UNIVERSITY

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

| Senior Division: | Cody Mills |
| :---: | :---: |
|  | How ESRB Ratings Affect |
|  | Human Heart Rate During |
|  | Video Game Play |
|  | Hillcrest High School |
|  | Chelsea House |
|  | Effects of Sunflower |
|  | Extract on Lettuce Seed |
|  | Mansfield High School |
|  | Brooke Lawrence |
|  | The Effects of Salt |
|  | Tolerance in Transgenic |
|  | Plants |
|  | Greenwood Lab School |
|  | Brian Kincaid |
|  | Regneration of Ion- |
|  | Selective Electrodes |
|  | Greenwood Lab School |
|  | Justin Haseltine |
|  | Steganography: |
|  | Encoding/Decoding Data |
|  | with Music |
|  | Greenwood Lab School |
|  | Katie Click |
|  | Glacier Mass Balance |
|  | Effects on Seismic Activity |
|  | Kickapoo High School |


| SPACIAIA A ARDS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DRURY UNIVERSITY (cont.) |  | EVANGEL UNIVERSITY |  | EVANGEL UNIVERSITY (cont.) |  |
| Senior Division: | Victoria Smiley | \$1,500 Scholarship to each Senior Division First Place Winner |  | Senior Division: | Christine Crain |
|  | Sub-Zero Temperature |  |  | Effects of Antibiotics on |
|  | Independent Concrete |  |  | Normal Digestive Bacteria |
|  | Glendale High School | Senior Division: | Cody Mills |  | Count |
|  |  |  | How ESRB Ratings Affect |  |  | Hartville High School |
|  | Sebastian Karuppan \& |  | Human Heart Rate During |  |  |  |
|  | Rudy Fotsch |  | Video Game Play |  | Michael Cook |
|  | Statistical Analysis of |  | Hillcrest High School |  | Intensity of Single Bubble |
|  | Ocean Water Quality |  |  |  | Sonoluminescence |
|  | Glendale High School |  | Chelsea House Effects of Sunflower |  | Greenwood Lab School |
|  | Kristin Campbell |  | Extract on Lettuce Seed |  | Sam Chaffin |
|  | Unbalanced Quadtrees Mansfield High School |  | Mansfield High School |  | Reservatrol \& Longevity in |
|  |  |  | Brooke Lawrence |  | Drosophilia Greenwood Lab School |
|  | Britany Bauer |  | The Effects of Salt |  |  |
|  | Structural Support for the |  | Tolerance in Transgenic | \$2,500 Scholarship to each Senior Division Grand Prize Winner |  |
|  | Prevention of Traumatic |  | Plants |  |  |
|  | Dorsiflexion |  | Greenwood Lab School |  |  |
|  | Glendale High School |  |  | Senior Division: | Sunny Qiu |
|  |  |  | Brian Kincaid |  | Regulate CGRP |
|  | Christine Crain |  | Regneration of Ion- |  | Expressions in DMS |
|  | Effects of Antibiotics on |  | Selective Electrodes |  | Cell/Grape Extract |
|  | Normal Digestive Bacteria Count |  | Greenwood Lab School |  | Greenwood Lab School |
|  | Hartville High School |  | Justin Haseltine |  | Katie Sherman |
|  |  |  | Steganography: |  | Effects of Hormone on |
|  | Michael Cook |  | Encoding/Decoding Data |  | Carbohydrate Use |
|  | Intensity of Single BubbleSonoluminescence |  | with Music |  | Mansfield High School |
|  |  |  | Greenwood Lab School |  |  |
|  | Greenwood Lab School |  |  | EXPANDING YOUR HORIZONS: WOMEN |  |
|  |  |  | Katie Click | IN SCIENCE |  |
|  | Sam Chaffin |  | Glacier Mass Balance |  |  |
|  | Reservatrol \& Longevity in |  | Effects on Seismic Activity | Books, Bookmark \& Certificate of Award |  |
|  |  |  | Kickapoo High School |  |  |
|  | Greenwood Lab School |  |  | Junior Division: | Jodie Putnam |
|  |  |  | Victoria Smiley |  | Do You C What I C? |
| 6 Hours Undergraduate Credit to the Senior |  |  | Sub-Zero Temperature Independent Concrete |  | Pleasant View MS |
|  |  |  | Glendale High School | Senior Division: | Jessica Chilton |
| Senior Division: | Sunny Qiu |  |  |  | Effects of Various Anti- |
|  | Regulate CGRP |  | Sebastian Karuppan \& |  | bacterial Agents on E. coli |
|  | Expressions in DMS |  | Rudy Fotsch |  | Mansfield High School |
|  | Cell/Grape Extract |  | Statistical Analysis of |  |  |
|  | Greenwood Lab School |  | Ocean Water Quality Glendale High School | GREATER OZARKS AUDUBON SOCIETY |  |
| Senior Division: | Katie Sherman Effects of Hormone on Carbohydrate Use Mansfield High School | Kristin Campbell Unbalanced Quadtrees Mansfield High School |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  | Membership and Field Guide |  |
|  |  |  |  | Senior Division: | Joseph Seagrave Radiation Levels Found |
|  | Mansfield High School |  | Britany Bauer |  | Around a Coal Power |
|  |  |  | Structural Support for the |  | Plant |
|  |  |  | Prevention of Traumatic Dorsiflexion |  | Greenwood Lab School |
|  |  |  | Glendale High School |  |  |


| SPECIALAWARDS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| THE GREENE COUNTY GROUNDWATER |  | THE 2006 KRAFT AWARD (sponsored by |  | MISSOURI SOLAR ENERGY ASSOCIATION |  |
| GUARDIAN AWARD (sponsored by the |  | Kraft Foods, Inc |  | Certificates of Award |  |
| GREENE COUN | Y RESOURCE |  |  |  |  |
| MANAGEMENT DEPARTMENT) |  | $\$ 50$ Cash Award (if given to partners, each partner will receive $\$ 50$ ) |  | Junior Division: | Matthew Oelschlaeger |
|  |  |  |  |  |  |
| Plaque and Tickets to Wonders of Wildlife |  | Senior Division: | Angelica Pohl |  | How Does Radiation And Solar Energy Energy |
| Junior Division: | Shiny Park |  | Caught in a Web |  | Affect Weather? |
|  | Survivor |  | Billings High School |  | St. Agnes Middle School |
|  | Cherokee Middle School |  |  |  |  |
|  | HERBERT HOOVER PRESIDENTIAL |  |  | Jeffrey Brandhorst | Senior Division: | Christian Ruiz |
|  |  |  |  | Specific Activity in |  | Solar Powered Cars |
| LIBRARY ASSOCIATION "YOUNG |  |  | Enzymatic Activation of |  | Hillcrest High School |
| ENGINEER AWARD" |  |  | Lactose Enzyme | Cerrificates of Award \& Calculators |  |
|  |  |  | Supplements |  |  |  |
| Certificate of Award and Medallion |  | Glendale High School |  | Junior Division: | Dalton Eustler |
| Senior Division: | Josh Shaver |  | Evelyn Moncada |  | Solar Cooker |
|  | A Braking System That |  | Effects of Parasite |  | Billings Middle School |
|  | Alters ATV Headlight |  | Chemicals on Soil |  |  |
|  | Angles |  | Microflora | Senior Division: | Kyle Reinert \& Cody |
|  | Hartville High School |  | Hartville High School |  | Hagewood |
|  |  |  |  |  | Solar-Wind Hybrid Energy |
| HORAN \& BECKER MEDICAL SCIENCE |  |  | Joy Abercrombie |  | Billings High School |
| AWARD (sponsored by HORAN \& |  |  | One Bad Apple Spoils the | MISSOURI STATE UNIVERISTY |  |
| BECKER, DDS, AFFILIATED ORAL |  |  | Bunch |  |  |  |
|  |  |  | Hillcrest High School | DEPARTMENT OF BIOLOGY |  |
| \$100 Health Science Award |  | MISSOURI DEPARTMENT OF CONSERVATION |  | Certificates to student and plaques to teachers |  |
| Senior Division: | Sunny Qiu | Certificates of Award |  |  |  |
|  | Regulate CGRP |  |  | Junior Division: | Emily Eck |
|  | Expression in DMS |  |  |  | Drink It Up |
|  | Cell/Grape Extract | Junior Division: | Hannah Greer |  | St. Agnes Middle School |
|  | Greenwood Lab School |  | Do Box Turtles See In |  | Lynn Vogel |
|  |  |  | Color? |  |  |
| INTEL EXCELLENCE IN COMPUTER |  |  | Marshfield Junior High |  | David DeVoss |
| SCIENCE AWARD |  |  |  |  | Roaring River |
|  |  | Senior Division: | Shawn Sigrest |  | St. Agnes Middle School |
| \$200 Cash and Cerrificate of Award |  |  | Impact of Exclosion \& |  | Lynn Vogel |
| Senior Division: |  |  | Non-Exclosion of Cattle |  | Anisha Rimal |
|  | Steganography: |  | Pleasant Hope High |  | Sea Urchin and the |
|  | Encoding/Decoding Data |  | School |  | Environment |
|  | with Music |  |  |  | Cherokee Middle School |
|  | Greenwood Lab School | NATIONAL SOCIETY OF PROFESSIONAL |  |  | Kevin Youngblood |
|  |  | ENGINEERS |  |  |  |
| INTERNATIONAL SOCIETY FOR OPTICAL |  |  |  |  | Lauren Mahaffey |
| ENGINEERS |  | Certificate of Award, Lapel Pin \& Subscription to Engineering Times |  |  | Bacteria Around the |
|  |  |  | House |  |  |
| Certificate of Award |  |  |  |  |  |  | St. Agnes Middle School |
|  |  | Senior Division: | Josh Shaver |  | Lynn Vogel |
| Senior Division: | Michael Cook |  | A Braking System that |  | Danielle Smukzenski Autism's Answer to Weight Training Cherokee Middle School Jackie Hutcherson |
|  | Intensity of Single Bubble |  | Alters ATV Headlight |  |  |
|  | Sonoluminiescence |  | Angles |  |  |
|  | Greenwood Lab School |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

MISSOURI STATE UNIVERISTY DEPARTMENT OF BIOLOGY (cont.)

Certificates to student and plaques to teachers

Senior Division: Brittany Bauer
Structural Support for the Prevention of Traumatic Dorsiflexion Glendale High School Charles Rey

Abby LaPreze
Office Miracle Grow Greenwood Lab School

Brett Marler
Finding a Link Between Dispersion \& Biodegradation of Oil Greenwood Lab School
Hugh Brewer
Chelsea Jones
Effects of Naturally Occurring Insecticides on Copepods Mansfield High School Pam Probert

Christine Crain Effects of Oral Antibiotics on Normal Digestive Bacteria Count Hartville High School Luke Boyer
\$1,000 Work/Study Award
Senior Division: Brittany Bauer Structural Support for the Prevention of Traumatic Dorsiflexion Glendale High School Charles Rey

MISSOURI STATE UNIVERSITY COLLEGE OF NATURAL AND APPLIED SCIENCES
\$50 Cash Award
Junior Division: Anisha Rimal Sea Urchins and the Environment Cherokee Middle School

MISSOURI STATE UNIVERSITY COLLEGE OF NATURAL AND APPLIED SCIENCES (cont.)

Senior Division:
Sunny Qiu
Regulate CGRP
Expressions in DMS
Cell/Grape Extract
Greenwood Lab School

Kati Sherman
Effects of Hormone on
Carbohydrate Use
Mansfield High School
MISSOURI STATE UNIVERSITY DEPARTMENT OF COMMUNICATION SCIENCES \& DISORDERS AWARD
\$50 Cash Award
Senior Division: Caitlin Masterson
Spelling: Is Wrong Really
Right?
Greenwood Lab School
Certificate of Award
Senior Division: Justin Haseltine
Steganography:
Encoding/Decoding Data
With Music
Greenwood Lab School
Margee Snokhous
Effects of Time on
Nonvisual Memory
Mansfield High School

## MISSOURI STATE UNIVERSITY SOCIETY OF PHYSICS STUDENTS

Magazine Subscription
Senior Division: Ryan Glasstetter Acoustical Application of the Bernoulli Principle Glendale High School

LOU \& NADINE MOORE MEMORIAL AWARD
\$50 Cash Award to the top Junior Division projects covering Education or Special Needs

Junior Division: Abby Davis \& Kalie Webb The Even-Handed
Teacher
Marshfield Junior High

LOU \& NADINE MOORE MEMORIAL AWARD (cont.)

| Junior Division: | Kaitlin Yocum <br> Scrambled Please |
| :--- | :--- |
|  | St. Agnes Middle School |

MU ALPHA THETA NATIONAL MATHEMATICS HONOR SOCIETY

Certificate of Award
Senior Division: Kristin Campbell The Application of the Four-Color Theorem on Unbalanced Corner Adjacency QuadTrees Mansfield High School

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Senior Division: Katie Click
Glacier Mass Balance
Effects on Seismic Activity
Kickapoo High School
POSITRONIC INDUSTRIES RESEARCH AWARD

Certificates of Award and Desk Clocks to Students

| Junior Division: | Danielle Moentish Hickory Hills MS |
| :---: | :---: |
|  | Sharise Dennis |
|  | Mansfield Middle School |
|  | Lauren Johnson |
|  | St. Agnes Middle School |
|  | Rachel Peck |
|  | Billings Middle School |
|  | Kelly Cochran |
|  | Billings Middle School |
|  | Ethan Davis |
|  | Mansfield Middle School |
|  | Kristen Polk |
|  | Ozark Upper Elementary |
|  | Amanda Goodman |
|  | Hickory Hills MS |
|  | Macy Ballenger |
|  | Immaculate Conception |


|  |  | HCI | $\triangle A \mathrm{AN}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| POSITRONIC INDUSTRIES RESEARCH AWARD (cont.) |  | SCHNEIDER FOUNDATION (in cooperation with the Community Foundation of the |  | SOCIETY OF MANUFACTURING |  |
|  |  | ENGINEERS |  |
| Junior Division: | Jacob Hall Cherokee Middle School |  |  | Ozarks) (cont.) |  | Palm Pilots |  |
|  |  | Senior Division: | Victoria Smiley Sub-Zero Temperature Independent Concrete Glendale High School | Junior Division: |  |
|  |  |  |  |  | Tim Camey <br> Battle of the Blades <br> St. Agnes Middle School |
|  | Rachel Scott |  |  |  |  |
|  | Immaculate Conception |  |  |  |  |
| RICOH CORPORATION |  | Chelsea House <br> Effects of Sunflower <br> Extract on Lettuce Seed <br> Mansfield High School |  | Senior Division: | Cassie Sanders |
|  |  |  |  |  | Effects of Coating |
| Certificate of Award \& Subscription to Science |  |  |  |  | Corrosion |
| Magazine |  |  |  | Mansfield High School |  |
| Senior Division: | Zach Mills |  |  | Sarah Beasley |  |
|  | Which Type of Oil Yields | How ESRB Ratings Affect |  | Radiation Absorption |  |
|  | the Most Diodiesel? | Human Heart Rate During |  | Differences in Floor |  |
|  | Hillcrest High Scho |  | Video Game Play |  | Designs |
|  | SCHNEIDER FOUNDATION (in cooperation |  | Hillcrest High School |  | Central High School |
| with the Community Foundation of the |  | THE SMITH-GLYNN-CALLOWAY MEDICAL |  | SPRINGFIELD/GREENE COUNTY |  |
| Ozarks) |  | FOUNDATION AWARD |  | ENVIRONMENTAL ADISORY BOARD |  |
| \$200 Cash and Certificates |  | \$100 Cash Award |  | \$50 Cash Award |  |
| Junior Division: | Candace Beach | Senior Division: |  | Junior Division: |  |
|  | Cherokee Middle School | Senior Division: | Kevin Parrott <br> Distance Running <br> Training Basis in Muscle <br> Composition |  | Amy Richter <br> Leaded Land <br> Cherokee Middle School |
|  |  |  |  |  |  |
|  | Rebecca Mayus Harnessing Wind Power Immaculate Conception | Glendale High School <br> \$200 Cash Award | Glendale High School | Senior Division: |  |
|  |  |  |  | Senior Division: | Andrew Robertson |
|  |  | \$200 Cash Award |  |  | Alluvial Sediment Studies in the Sequiota Spring |
|  | Amy Richter | Senior Division | Rajidivya Viswanathan Blindness in Premature Infants: A Critical Analysis Catholic High School | Complex <br> Glendale High School |  |
|  | Leaded Land |  |  |  |  |  |
|  | Cherokee Middle School |  |  |  |  |
|  |  |  |  | UNITED STATES AIR FORCE |  |
|  | Beating the Odds | \$300 Cash Award |  | Portfolio, Scientific Calculator, \& Pencil/Pen Set |  |
|  | Pleasant View MS |  |  |  |  |  |  |
|  |  | Senior Division | Brittany Bauer <br> Structural Support for <br> Prevention of Traumatic <br> Dorsiflexion <br> Glendale High School | Senior Division: |  |
|  | Anisha Rimal <br> Sea Urchins \& the |  |  |  | Zenobia Tucker <br> Grass or Grain: Which Beef is Better? <br> Greenwood Lab School |
|  | Environment |  |  |  |  |
|  | Cherokee Middle School |  |  |  |  |
| \$500 Cash \& Certificate |  | \$400 Cash Award |  |  | April Risner |
|  |  |  | Color Confusion Phase II |  |  |
| Senior Division: | Justin Haseltine |  |  | Senior Division | Sunny Qiu <br> Regulate CGRP <br> Expression in DMS <br> Cell/Grape Extract <br> Greenwood Lab School |  | Thayer High School <br> Sunny Qiu <br> Regulate CGRP <br> Expressions in DMS <br> Cell/Grape Extract <br> Greenwood Lab School |
|  | Steganography: |  |  |  |  |  |
|  | Encoding/Decoding Data |  |  |  |  |  |
|  | with Music |  |  |  |  |  |
|  | Greenwood Lab School |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Sebastian Karuppan \& |  |  |  |  |  |
|  | Rudy Fotsch |  |  |  |  |  |
|  | Statistical Analysis of |  | Katie Click |  |  |  |
|  | Ocean Water Quality |  | Glacier Mass Balance |  |  |  |
|  | Glendale High School |  | Effects on Seismic Activity |  |  |  |
|  |  |  | Kickapoo High School |  |  |  |


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| :---: | :---: | :---: | :---: | :---: | :---: |
| UNITED STATES ARMY - Excellence inEngineering |  | UNITED STATES ARMY - Excellence in Physical Science |  | UNITED STATES NAVYIMARINE CORPS |  |
| Certificate of Award \& Shirt |  | Certificate of Award \& Shirt |  | Junior Division: | Cody Clements Let Me In! |
| Senior Division: | Josh Shaver <br> A Braking System That Alters ATV Headlight Angles Hartville High School | Senior Division: | Brian Kincaid <br> Regeneration of IonSelective Electrodes Greenwood Lab School |  | St. Joseph Middle School <br> Katie Renkoski Greasy Gridlock St. Agnes Middle School |
|  | Cassie Sanders Effects of Coating Treatments on Rates of |  | Seth Greer Is Fat Where It's At? Marshfield High School |  | Clarissa Gutierrez <br> Snoring Can Be Annoying <br> St. Agnes Middle School |
|  | Corrosion When | UNITED STATES ARMY - Grand Prize |  |  |  |
|  | Aquatically Submerged Mansfield High School | Bronze Medallion, Certificate of Award \& Shirt |  | Senior Division: | Seth Greer <br> Is Fat Where It's At? Marshfield High School |
| UNITED STATES ARMY - Excellence in |  | Senior Division: | Matthew Carra |  |  |
| Environmental Science |  |  | Influence of Polarity of |  | Cassie Sanders |
|  |  |  | NaCl Crystallization |  | Effects of Coating |
| Certificate of Award \& Shirt |  |  | Patterns <br> Kickapoo High School |  | Treatments on Rate of Corrosion When |
| Senior Division: | Zach Mills |  |  |  | Aquatically Submerged |
|  | Which Type of Oil |  |  |  | Mansfield High School |
|  | Produces the Most | UNITED STATES METRIC ASSOCIATION |  |  |  |
|  | Biodiesel? <br> Hillcrest High School | Certificate of Award |  |  | Kyle Reinart \& Cody |
|  |  |  |  |  | Hagewood |
|  |  | Senior Division: | Melissa Morris \& Jenni |  | Solar Wind |
| UNITED STATES ARMY - Excellence in |  |  | Lemons |  | Billings High School |
| Life Science |  |  | The Effects of |  |  |
| Certificate of Award \& Shirt |  |  | Nanoparticle Treatment on the Flammability of |  | James Hansen Strobe Circuit |
|  |  |  | Cotton Fabric |  | Programming for |
| Senior Division: | Chelsea House |  | Mansfield High School |  | Acoustical Analysis |
|  | Effects of Sunflower |  |  |  | Glendale High School |
|  | Extracts on Lettuce Seeds | UNITED STATES NAVYIMARINE CORPS |  |  |  |
|  | Mansfield High School |  |  | UNITED STATES DEPARTMENT OF |  |
|  |  | Medal, Book \& Certificate of Award |  | HEALTH \& HUMAN SERVICES |  |
| Senior Division: | Kati Sherman |  |  |  |  |
|  | Effects of Hormones on | Junior Division: | Peter Kuhn | Certificate of Aw |  |
|  | Carbohydrate Use in |  | Fruity Radio |  |  |
|  | Germinating Monocots |  | Hickory Hills MS | Senior Division: | Rajidivya Viswanathan |
|  | Mansfield High School |  |  |  | Blindness in Premature |
|  |  |  | Abigail Horton |  | Infants: A Critical Analysis |
| UNITED STATES ARMY - Excellence in |  |  | Ice, Ice, Baby |  | Catholic High School |
| Mathematics/Computer Science |  |  | St. Agnes Middle School |  |  |
|  |  |  |  | WALLACE WEBER MEMORIAL AWARD |  |
| Certificate of Award \& Shirt |  |  | Colin Baker |  |  |
|  |  |  | Which Works Better: |  |  |
| Senior Division: | James Hansen |  | NiMH or Alkaline | \$25 Cash Award for Outstanding Botany Project |  |
|  | Strobe Circuit |  | Batteries? |  |  |
|  | Programming for |  | Immaculate Conception |  |  |
|  | Acoustical Analysis |  |  | Senior Division: | Connie Quirk |
|  | Glendale High School |  | Mathew Ford |  | Effects of Competitive |
|  |  |  | Hover Crafts \& More |  | Seed on the MMHC of |
|  |  |  | Immaculate Conception |  | Pea Seeds |
|  |  |  |  |  | Mansfield High School |



## OZARKS SCIENCE \& ENGINEERING FAIR FOUNDATION JUNIOR DIVISION GRAND PRIZE TEACHER AWARD

This award of $\$ 25$ cash and a plaque is awarded to the teacher(s) of the Junior Division Grand Prize student project. The recipient of the OSEF Foundation Junior Division Grand Prize Teacher Award for 2006 is:

Kevin Youngblood Cherokee Middle School

## OZARKS SCIENCE \& ENGINEERING FAIR FOUNDATION SENIOR DIVISION GRAND PRIZE TEACHER AWARD

This award of $\$ 25$ cash and 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 2006 are:

Hugh Brewer
Greenwood Laboratory School
Pam Probert Mansfield High School

## The Ozarks Science \& Engineering Fair Foundation

We hope you have enjoyed this year's Ozarks Science \& Engineering Fair, and that your student had a enriching as well as rewarding experience.

The Ozarks Science \& Engineering Fair is THE premier middle and high school science competition for southwest Missouri. The Fair is a regional competition which brings together student scientists and engineers with outstanding research projects. It also serves as an excellent opportunity for students to experience working with local scientists and professionals. Participating students are from a 16 county region which includes: Christian, Dade, Douglas, Greene, Howell, Laclede, Oregon, Ozark, Polk, Pulaski, Shannon, Stone, Taney, Texas, Webster and Wright counties. The Fair itself takes place annually during the first week of April at Hammons Student Center on the campus of Missouri State University. For more information about the Fair itself, visit http://www.k12science.missouristate.edu/OSEF/enter_the_fair!.htm.

Funds for the Fair come exclusively from contributions by individuals, organizations, foundations, businesses, and industries in our region. These funds are used for operational costs, prizes, awards, and expenses for participation in the annual International Science and Engineering Fair, where our students interact and compete with student scientists from around the world.

Our supporters come from all areas of the community, and are bound together by their mutual interest in promoting science and math education, research and careers in the young people of southwest Missouri. OSEF invites you to support and encourage young scientists, and has established cumulative and annual giving levels, which will be recognized. The recognition levels achieved by those who support the Fair will be publicized in the annual Entry and Award Books as well as newspaper announcements following the Fair.

We already know you value science and math education for our young people-your generous donations are vital to the continued success of this important outreach in our community. If you would like to contribute to the Fair Foundation, please use the attached envelope-a drop box will be available at the information desk as you leave the Fair, or you can mail your donation at a later date.

## Thank You!

## WE WANT YOU!

Are you looking for a community service opportunity?
The Ozarks Science \& Engineering Fair, the premier middle and high school science competition for southwest Missouri, is currently looking for persons willing to serve on the Steering Committee. The Fair is a regional competition which brings together student scientists and engineers with outstanding research projects. It also serves as an excellent opportunity for students to experience working with local scientists and professionals. Participating students are from a 16 county region which includes: Christian, Dade, Douglas, Greene, Howell, Laclede, Oregon, Ozark, Polk, Pulaski, Shannon, Stone, Taney, Texas, Webster and Wright counties. The Fair itself takes place annually during the first week of April at Hammons Student Center on the campus of Missouri State University. For more information about the Fair itself, visit http://www.k12science.missouristate.edu/OSEF/enter_the_fair!.htm.

The Steering Committee is responsible for the annual production of the Fair, and generally meets about once a month from September to March. Subcommittees include: Elementary Fair, Placement Awards, Special Awards, Registration, Rules \& Regulations, Science Day, Volunteers, Publicity, and others. Current members come from all areas of the community, and are bound together by their mutual interest in promoting science and math education, research and careers in the young people of southwest Missouri.

If you would be interested in this unique and rewarding community service opportunity, please complete the form below and leave it in the drop box at the Fair Information Desk.

## Yes, I want to be on the Steering Committee!

Name

Address

