

UNIVERSITY OF  
**SOUTHERN INDIANA**<sup>®</sup>

Pott College of Science,  
Engineering, and Education

**TRI-STATE  
SCIENCE AND  
ENGINEERING  
FAIR**

**2025**

[USI.edu/stem](http://USI.edu/stem)



CountryMark.

Southwest  
Indiana **STEM**



AstraZeneca



- Animal Sciences
- Behavioral and Social Sciences
- Chemistry
- Earth and Environmental Sciences
- Energy: Physical and Chemical
- Engineering
- Mathematics
- Medicine and Health Sciences
- Microbiology and Molecular/Cellular Biology
- Physics and Astronomy
- Plant Sciences
- Robotics, Computers and Systems Software



## Schedule of Events

### Thursday, March 13, 2025

- 12:00 PM – 4:00 PM Participants Check-in and Set up Project Displays (Carter Hall)
- 4:00 PM – 5:00 PM Judges Preview (Carter Hall)
- 5:00 PM – 5:30 PM Judges Orientation and Dinner (UC2217)
- 5:30 PM – 6:00 PM Grade-Level and Special Awards Judges Meet to Discuss Strategy for Judging Exhibits
- 6:00 PM – 8:00 PM Judging (Students at Displays)

### Friday, March 14, 2025

- 9:00 AM – 12:00 PM Carter Hall Open for Public Exhibition

### Monday, March 17, 2025

- 6:00 PM – 7:30 PM Awards Ceremony (USI Performance Center)

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## 2025 OFFICIALS

### Fair Director

**Allison Grabert**

*Director*

*SwISTEM Resource Center*

University of Southern Indiana

### Assistant Fair Director

**Paige Walling**

*SwISTEM Services Supervisor*

*SwISTEM Resource Center*

University of Southern Indiana

### Special Awards Committee Member

**Kelly Sparks**

*Faculty*

*Department of Teacher Education*

University of Southern Indiana

### Special Awards Committee Member

**Brandon Field**

*Faculty*

*Engineering Department*

University of Southern Indiana

## Special Thanks to the Fair Sponsors and Contributors

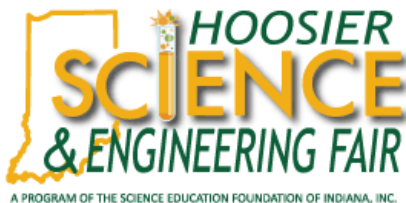
The Tri-State Science and Engineering Fair wouldn't be possible without the generosity of individuals, businesses, organizations, and schools throughout our community. A heartfelt thank you to everyone listed in this program—and to the students whose dedication and hard work brought these projects to life.

Some provide financial support, while others volunteer their time, expertise, and resources. Every contribution plays a vital role in making this event a success. On behalf of all the students participating: Thank you!

We're always looking for ways to expand STEM education opportunities for young people in our region. If you or your organization are interested in inspiring the next generation of scientists and engineers, we would love to hear from you! Contact Allison Grabert at 812-228-5019 or [afgrabert@usi.edu](mailto:afgrabert@usi.edu) to explore how you can get involved. Your ideas and support make a difference!

## Fair Sponsors

Special thanks to our sponsors for their generous financial support and service, which help ensure a well-organized and valuable Tri-State Science and Engineering Fair. Their commitment to STEM education and the success of our local students makes this event possible. We appreciate their dedication to supporting our schools and communities!



## Awards

### **SENIOR DIVISION GRAND AWARDS AND HONORABLE MENTIONS (GRADES 9 – 12)**

A Grand Award winner will be selected at each Senior Division grade level – 9<sup>th</sup> grade, 10<sup>th</sup> grade, 11<sup>th</sup> grade, and 12<sup>th</sup> grade. Each Grand Award winner will receive a medallion and \$200.00.

Two Senior Division Honorable Mention Award winners in each grade will receive a medallion and \$100.00.

Up to ten Senior Division exhibitors, along with their teacher or sponsor, will be invited to participate in the Hoosier State Science and Engineering Fair. Eligible students will represent the Tri-State Science and Engineering Fair in a competitive state judging event with additional awards and prizes. The Senior Division Hoosier State Science and Engineering Fair, sponsored by the Science Education Foundation of Indiana (SEFI), will be held in-person on Saturday, April 5, 2025, at IU Indianapolis.

In addition, SEFI sponsors a Hoosier Delegation to participate in the Regeneron International Science and Engineering Fair (ISEF) which will be held in Columbus, OH on May 10 – May 16, 2025. Exhibitors advancing from the Tri-State Science and Engineering Fair have an opportunity to compete for Hoosier Delegation positions at the Hoosier Science and Engineering Fair. ISEF paperwork must be completed and correct to be competitive at the Hoosier Science and Engineering Fair.

### **JUNIOR GRAND AWARDS AND HONORABLE MENTIONS (GRADES 6 – 8)**

A Grand Award winner will be selected at each Junior Division grade level – 6<sup>th</sup> grade, 7<sup>th</sup> grade, and 8<sup>th</sup> grade. Each Grand Award winner will receive a medallion and \$100.00.

Two Junior Division Honorable Mention Award winners in each grade will receive a medallion and \$50.00

Up to ten Junior Division exhibitors, along with their teacher or sponsor, will be invited to participate in the Hoosier State Science and Engineering Fair. Eligible students will represent the Tri-State Science and Engineering Fair in a competitive state judging event with additional awards and prizes. The Junior Division Hoosier State Science and Engineering Fair, sponsored by the Science Education Foundation of Indiana (SEFI), will be held on Saturday, April 5, 2025, at IU Indianapolis.

### **ELEMENTARY GRAND AWARD WINNERS (GRADES K – 5)**

One Grade 4-5 Grand Award winner will receive a medallion and \$50, and two Grade 4-5 Honorable Mention Award winners will receive a medallion and \$25.

One Grades K – 3 Elementary Grand Award winner will receive a medallion and \$50, and two Grade K-3 Honorable Mention Award winners will receive a medallion and \$25.

The Grade 4-5 Grand Award winner, along with their teacher or sponsor, will be invited to participate in the Hoosier State Science and Engineering Fair. This student will represent the Tri-State Science and Engineering Fair in a competitive state judging event with additional awards and prizes. The Junior Division Hoosier State Science and Engineering Fair, sponsored by the Science Education Foundation of Indiana (SEFI), will be held on Saturday, April 5, 2025, at IU Indianapolis.

## **National Awards and Recognition Contributors**

### **American Psychological Association**

*Certificate of Award for Outstanding Research in Psychological Science and free APA student membership*

### **Association for Women Geoscientists**

*Certificate of Merit for Outstanding Project in Geoscience by a Female Student*

### **National Aeronautics and Space Administration**

*Earth System Science Award for Project Offering the Greatest Insight into Earth's Interconnected Systems and invitation to a webinar with a NASA Scientist*

### **National Oceanic and Atmospheric Administration**

*Taking the Pulse of the Planet Award Certificate of Merit and invitation to career exploration webinar for NOAA award winner*

### **Office of Naval Research (United States Navy & Marine Corps)**

*Four Naval Science Junior Division Award Certificates of Merit and Medallion and Three \$50.00 Senior Division Awards and Medallion*

### **Regeneron Biomedical Award**

*One Senior Award of \$375 for Best Biomedical, Biochemistry, or Biomedical Engineering Project*

### **Ricoh Americas Corporation**

*One Ricoh Sustainable Development Award Certificate for Research That Offers the Greatest Potential for Sustainable Development*

### **Society for In Vitro Biology**

*Certificate of Merit for Ability and Creativity in In Vitro Biology for 11<sup>th</sup> Grade Students*

### **Stockholm Junior Water Prize**

*One Senior Division Award Certificate of Merit for Excellence for a Water-Related Project*

### **Thermo Fisher Scientific Junior Innovators Challenge**

*An invitation to compete in the Thermo Fisher Junior Innovators Challenge. 10% of Middle School students will be selected and prize winners at the National Competition can receive up to \$25,000.*

### **United States Agency for International Development (USAID)**

*Science Champion Award recognizing an exceptional project with the potential to make an impact on addressing international development challenges*

### **United States Air Force**

*Four certificates of merit and awards packages for outstanding projects with Air Force applicability*

### **United States Metric Association**

*Certificate of merit the best use of the International System of Units in a science fair project*

### **Yale Science and Engineering Association**

*Certificate of Merit for Most Outstanding 11<sup>th</sup> Grade Exhibit in Computer Science, Engineering, Physics or Chemistry*

## **Local Awards and Recognition Contributors**

### **American Chemical Society Indiana/Kentucky Border Section**

*\$175 Award for Best Senior Project & Certificate of Merit*

*\$75 Award for Best Junior Project & Certificate of Merit*

### **AstraZeneca**

*One \$25 Elementary Division Award for Outstanding Use of the Scientific Method*

*One \$50 Junior Division Award for an Outstanding Medicine or Health-Related Project*

*One \$75 Senior Division Award for an Outstanding Medicine or Health-Related Project*

### **Berry Global**

*Two \$25 Awards for Outstanding Elementary Division Projects with a Focus on Improving the Environment*

*Three \$50 Awards for Junior Division Projects with a Focus on Improving the Environment*

*Four \$75 Awards for Senior Division Projects with a Focus on Improving the Environment*

### **Cindy Deloney-Marino and Anthony Marino Award for the American Society for Microbiology**

*Two \$100 Awards for Best Senior Projects in Microbiology*

### **CenterPoint Energy**

*One \$100 Award for an Outstanding Senior Division Energy-Focused Project*

### **CountryMark Refining and Logistics**

*Two \$25 Awards for Outstanding Elementary Division Engineering or Earth Science-Related Projects*

*Three \$50 Awards for Outstanding Junior Division Engineering or Earth Science-Related Projects*

*Four \$75 Awards for Outstanding Senior Division Engineering or Earth Science-Related Projects*

### **Dr. and Mrs. Jonathan S. Lowrey**

*Two \$75 Awards for Best Projects in Biochemistry and Chemistry & Certificate of Merit*

### **Dr. Jeffery Seyler Memorial Award**

*One \$50 Award for Best Chemistry Project in the Elementary Division & Certificate of Merit*

*One \$50 Award for Best Chemistry Project in the Junior Division & Certificate of Merit*

### **Kenneth E. Braun, DDS, Memorial Award**

*\$150 Award for Best Project in Animal Science, Senior Division*

*\$150 Award for Best Project in Animal Science, Junior Division*

### **Mesker Park Zoo and Botanic Gardens**

*Two Behind the Scenes Tours for Best Junior Division Project in Animal Sciences or Plant Sciences*

*Two Behind the Scenes Tours for Best Senior Division Project in Animal Sciences or Plant Sciences*

### **Purdue University School of Agriculture**

*\$50 Award for Best Senior Project in Food, Agriculture, or Natural Resources & Certificate of Merit*

*Certificate of Merit for Best Junior Project in Food, Agriculture, or Natural Resources*

*Certificate of Merit for Best Elementary Project in Food, Agriculture, or Natural Resources*

### **University of Southern Indiana College Achievement Program**

*\$50 Award for Best Senior Behavioral Science Project & Certificate of Merit*

### **University of Southern Indiana Department of Kinesiology and Sport**

*Certificate of Merit for Outstanding Project with a Sports Theme and 4 free tickets to a USI Sporting Event*

**University of Southern Indiana Pott College of Science, Education, and Engineering**  
*Up to Three One Year, Non-Renewable \$1500 Scholarship for Students Majoring in Science, Engineering, Math,  
or Kinesiology at the University of Southern Indiana.*

## **Volunteer Judges\***

***Special thanks to our generous volunteer judges for sharing their time and expertise with the  
Tri-State Science and Engineering Fair exhibitors!***

Mr. Abraham Abu-Hussein  
Mrs. Alison Allred  
Mr. Michael Andrews  
Ms. Ashley Babcock  
Mr. Rob Baxter  
Dr. Nicole Becklinger  
Mrs. Twyala Carner  
Dr. Tori Colson  
Mr. Dave Ellert  
Mr. Luke Fehrenbacher  
Dr. Brandon Field  
Mr. Zavier Gibson  
Mr. Adam Gilles  
Mr. Fred Hassman  
Mr. Tom Heckman  
Mrs. Erin Hollinger  
Dr. Rick Hudson  
Ms. Kathleen Irwin  
Ms. Alecia Kalaher  
Mr. Ajay Kulkarni

Dr. Jason Langley  
Dr. Jon Lowrey  
Mrs. Leisa Lowrey  
Mrs. Natalie Macaulay  
Mr. Jason Mair  
Dr. Tony Maria  
Mrs. Diane Marrett  
Dr. Timothy Mattison  
Dr. Ryan McCann  
Dr. Matt Merlo  
Mr. Joseph Motz  
Mrs. Cristina Nathan  
Dr. Swateja Nimkar  
Ms. Lilliana Ocasio  
Dr. Kenneth Parker  
Dr. Soi Chong Powell  
Mr. Mark Powell  
Dr. Janell Pycior  
Mr. Steve Rawlinson  
Dr. Milad Rad

Dr. Erin Reynolds  
Mr. Chris Robinson  
Mr. Brad Sater  
Dr. Alex Schmitt  
Dr. Heather Schmuck  
Mr. Braden Schroeder  
Mr. Carl Schultz  
Dr. Chris Sedlacek  
Dr. Kelly Sparks  
Mr. Matt Stewart  
Ms. Kaelie Titzer  
Dr. Ken Walsh  
Dr. Elizabeth Wilkins  
Mrs. Paige Walling  
Mr. Ryan Williams  
Mrs. Pam Wilson  
Dr. Bryan Woosley  
Dr. Uditha Wijesuriya  
Mr. Allen Wright

\*Judges registered at time of  
print.

## **Participating Teachers/Adult Sponsors**

*Special thanks to Tri-State educators and parents  
for serving as mentors to area students.*

Amrita Khurana	Tri-State Region Home Schools
Amy Hickey	Evansville Day School
Ashley Moran	Evansville Day School
Christopher Fifer	Henderson North Middle School
Courtney Foster	Holy Rosary School
Donna Folz	St Philip School
Eric Greenwood	Signature School Inc
Jill Valentine	New Tech Institute
Karen Burke	Mount Vernon Jr High School
Karen Upshaw	Farmersville Elementary School
Lisa Meek	Mount Vernon Jr High School
Madison Chaykowsky	Holy Rosary School
Manojkumar Chellamuthu	Castle North Middle School
Melanie Potts	Marrs Elementary School
Natalie Macaulay	North Posey Sr High School
Pamela Swader	Heritage Hills High School
Rebecca Winn	Westside Catholic School
Sara Killebrew-Sabo	Castle North Middle School
Sarah Harmon	Castle North Middle School
Shelly Aull	Castle High School
Steve Mintner	Castle High School
Susan Crump	Castle North Middle School
Swati Muchalambkar	Tri-State Region Home Schools
Tim Smith	Mount Vernon Jr High School
Timothy Weisling	New Tech Institute
Tracey Hayden	Signature School Inc
Tracy Post	Castle North Middle School
Whitney Martens	Mount Vernon High School



### **ELEMENTARY DIVISION: GRADES K – 3**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

#### **EE001**

*Generating Electricity: Do more coils make a stronger current?*

Trent Engbers

Grade: 2

Judging Time: 6:00 - 6:45 p.m.

#### **EE002**

*Vitamin C Vitality: Exploring whether the Vitamin C content decreases in Aging Oranges*

Arjun Khurana

Grade: 2

Judging Time: 6:00 - 6:45 p.m.

#### **EE003**

*Tooth Trouble: How Do Drinks Affect Our Teeth*

Quinn Zirkelbach

Grade: 3

Judging Time: 6:00 - 6:45 p.m.

### **ELEMENTARY DIVISION: GRADES 4 – 5**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

#### **LE001**

*Magnetic Slime Robots: Determining the Optimal Activator*

Aneel Khurana

Grade: 4

Judging Time: 6:00 - 6:45 p.m.

#### **LE002**

*Hidden Power*

Aryan Kulkarni

Grade: 4

Judging Time: 6:00 - 6:45 p.m.

#### **LE003**

*Ice, Ice Maybe*

Ella Branam

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

#### **LE004**

*The physics of falling: How parachutes affect a crew capsule and terminal velocity*

Donald Engbers &

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

#### **LE005**

*The Strength of Fishing Line*

Sawyer Goebel

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

#### **LE006**

*Gummy Bear Osmosis*

Arianna Griner

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

#### **LE007**

*Elephant Toothpaste*

Owen Hagan

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

#### **LE008**

*Bubble Gum*

Paisley Lupfer

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

#### **LE009**

*Battle fo the Bats*

Grant Offerman

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

**LE010**

*Lemon Juice Science Experiment*

Ben Pearson

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

**LE011**

*Blindfolded Cookie*

Peyton Porter

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

**LE012**

*Popcorn*

Emma Renshaw

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

**LE013**

*To Room Temp*

Ellie Smith

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

**LE014**

*Soda Fizz*

Andrew Winiger

Grade: 5

Judging Time: 6:00 - 6:45 p.m.

**JUNIOR DIVISION: GRADE 6**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

**JD601**

*AI vs. Young Minds: Does Generative AI Help or Hurt Critical Thinking?*

Atharva Manojkumar & Srujan Rao R

Grade: 6

Judging Time: 6:00 - 7:00 p.m.

**JD602**

*Sip, Swish, Stain: The Effects of Common Beverages on Teeth*

Sydney Zirkelbach

Grade: 6

Judging Time: 6:00 - 7:00 p.m.

**JUNIOR DIVISION: GRADE 7**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

**JD701**

*How does hand sanitizer affect germs?*

Amelia Andrus

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD702**

*Flavor Perception*

Brynn Arendt & Isabella Predmore

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD703**

*Water Retention: Effect of Soil Type on Water Retention*

Parker Bateman

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD704**

*Tetris*

Walker Bishop & Warren Bredemeier

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD705**

*Peppermint Power*

Olivia Branch

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD706**

*Granulated vs. Powdered Charcoal, Which Filters Water Better?*

Arelia Brown & Penelope Hodes

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD707**

*Relentless Rusting*

Varun Chandar

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD708**

*Space Waves*

Caleb Clary

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD709**

*Do Warmer Seas Make Stronger Hurricanes?*

Allison Coad & Brianna Zeron Maldonado

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD710**

*Melt Down*

Michaela Dillback

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD711**

*Make the wind work for you!*

Camden Duff & William Deep

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD712**

*Leveling Up*

Samuel Eastep

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD713**

*Project Magnetron*

Michael Eckert

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD714**

*Grass Fast!*

Muhammad Farooq

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD715**

*Ocean acidity lab*

Cain Felty & Vansh Patel

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD717**

*Beats vs Brain*

Sara Griffin

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD718**

*The Gamer's High*

Greyson Hodges

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD719**

*Reach for the Sky*

Charlotte Huber & Hailey Schnell

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD720**

*Power From The Heat!*

Hariharan Jaikanesh

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD721**

*Genius Genetics*

Cassidy James & Isabella Lane

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD722**

**\*\*No Title\*\***

Gargi Kancharla

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD723**

*FREEZE!!*

Neerja Khadilkar & Havi Yogi

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD724**

*Cookie Chemistry*

Veronica Kulikov

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD725**

*Milk Madness*

Emma Lengacher & Jessica Sisson

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD726**

*Salty Soil*

Akarsh Maurya & Vedant Mamidala

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD727**

*Always stay Heal-teeth!*

Brody Mills & Paige Nordhoff

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD728**

**\*\*No Title\*\***

Saanvi Mishra

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD729**

*The Sweet Truth*

Cooper Monroe & Nathan Miller

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD730**

*Why Are Teens Stressed?*

Lukas Mueller

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD731**

*Light color*

Noah Myers & Toby O'Nan

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD732**

*Drop It Likes It's Hot*

Maliya Newman & Shelby Hamilton

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD733**

*No More Sound Around!*

Inchara Patil & Manasi Bhagwat

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD734**

*Fasting: Effective or Not?*

Harper Riggs

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD735**

*How Age Affects Reaction Time*

Aceton Robinson & Oliver Gugel

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD736**

*Fertilizer Frenzy!*

Clayton Seavers

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD737**

*Radish Growth*

Austin Sheffer & Easton Byrd

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD738**

*Which Baseball Statistic Predicts Runs Scored Most Efficiently?*

Kroix Smith

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD739**

*Pasta Party*

Eden Staat

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD740**

*Color Countdown: The Effect of Color on Memory*

Anna Stolz

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD741**

*Sugar Rush*

Jacelyn Wallace & Torey Cohron

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD742**

*Sugar Rush*

Livi Wells

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD743**

*Coin Jar*

Eli Wells & Latham Wagner

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD744**

*Does color affect plant growth?*

Grayson Whittedge

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD745**

*Seeing Which Cheese Turns Moldy First*

Raymond Williams

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JD746**

*Does your region you are born in affect your height?*

Gunnar Wilson & Hudson Bean

Grade: 7

Judging Time: 7:00 - 8:00 p.m.

**JD747**

*Bouncin' Balls: Effect of Air Pressure on Height of Basketball Bounce*

Henry Zenthoefter

Grade: 7

Judging Time: 6:00 - 7:00 p.m.

**JUNIOR DIVISION: GRADE 8**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

**JD801**

*Temperature Trouble*

Emily Adams

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD802**

*What Is The Best Bridge Design.*

Kayden Alatorre-Neri

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD803**

*Water Filter*

Tristan Armstrong

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD804**

*Plugged In: Wired or Wireless?*

Jordan Aussieker

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD805**

*Automatic Braille Compound: A Learning Tool for the Blind*

Carolyn Bassett & Lily Bassett

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD806**

*Egg-stra Large: Diet Secrets*

Paige Bennett

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD807**

*Bright Choice*

Jozelyn Bethe

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD808**

*Something smells fishy*

Arnav Bhavsar & Nishi Patel

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD809**

*Measuring Electrolytes*

Seth Boggess

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD810**

*A Hue to Remember: The Power Color Has on Memory*

Maddox Butler

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD811**

*ozone in o so many places*

Ashira Namipa Chishala

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD812**

*The Carbon Creation*

Ella Chowning

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD813**

*Bananas in Space*

conner congdon

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD814**

*Grow Big or Go Home*

Ryleigh Conner

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD815**

*Innovation or Risk*

Aaliyah cowan

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD816**

*Flight of golf balls*

Evan Craig

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD817**

*Bouncing Point*

Ella Dame

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD818**

*From Farm to Fridge: Prolonging Strawberry Freshness*

Aspen Eifert

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD819**

*Fizz Factor: What Ratio of Vinegar and Baking Soda Produces the Most Gas?*

Elijah Emerson

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD820**

*Effect of Light on Vitamin C*

Karli Farmer

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD821**

*How to reduce Recidivism*

Raymond Fehd

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD822**

*One Bend to Increase Wind*

Tristan Flagg

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD823**

*Hear the Waves*

Megan Flynn

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD824**

*Toothpaste Armor: Protecting Teeth from Not so Egg-cellent Drinks*

Charlie Fritz & Easton Bender

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD825**

*Flower Power: Effect of Water Solutions on Cut Flowers*

Marley Gomez

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD826**

*Can You Feel The Tension*

Andrew Gresham & Colin Crecelius

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD827**

*Water Hardness: A Comparison of Well Water and City Water*

Aubrey Grimes & Madison Cooper

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD828**

*Growing Beans by Different Means*

Everett Hardy

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD829**

*Efficient Propeller Design*

Riley Harper

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD830**

*Rust on Metal*

Mason Hazelwood

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD831**

*Piece of Cake*

Brooklyn Hollander & Lila Till

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD832**

*Are You Righty or Lefty Paw-minant?: The Effect of Paw Dominance on a Dog's Response to Stimuli*

Baylee Hoon

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD833**

*How can Sound Affect Sleep?*

Chelsea Hutton

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD834**

*Oxidation Differentiation*

Rafael Iglesias

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD835**

*Whatever Floats Your Boat.*

Logan Jenkins

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD836**

*Disposable vs. Rechargeable*

Olivia Jenkins

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD837**

*Hue Helper*

Christopher Joseph

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD838**

*Green Alchemy*

Sahana Karthikeyan

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD839**

*Making (Sound) Waves*

Kamryn Keesling

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD840**

*Colors Under the Sun*

Leah Kilgour

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD841**

*Artificial Gravity*

Ethan Kincade

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD842**

*Van de Graaff Generator: Electrifying Experiments*

Ayla Krietenstein & Jack Greenwell

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD843**

*The Lotus Effect: Analyzing the Efficacy of Water Repellent Coatings*

Avantika Kudiyirikkal Anil

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD844**

*DIAMONDS*

Charles Lawless

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD845**

*Safest Sources of Drinking Water*

Alex Martinez

Grade: 8

Judging Time: 7:00 - 8:00 p.m.



**JD846**

*The Moon and the Tides*

Aspyn Mayfield

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD847**

*What's the Matter? Measure the Splatter!*

Lily McCown

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD848**

*Counter top Conundrum*

Charlee McMain

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD849**

*The strength of fishing knots*

Jackson Melton

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD850**

*Non-Ethanol: Is It Worth It? Effect of Non-ethanol Fuel on Engine Build Up*

Braiden Merritt

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD851**

*Fall Fishing Frenzy*

Eli Meunier

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD852**

*Mirror Madness*

Om Modi

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD853**

*Fears with the Years*

Addie Moore

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD854**

*Light up your life with light intensity!*

Abram Moore

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD855**

*Sink or Swim*

Adelynn Morphew

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD856**

*Football Frenzy*

Eli Morris

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD857**

*Water Filter*

Kenneth Mortis

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD858**

*Great Globes of Gluten: Effect of Amount of Protein in Flour on Amount of Gluten*

Marissa Neimeier

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD859**

*Sweet N' Secret Strawberry Science*

Krisa Patel

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD860**

*Stress and Heart Rate: Effect of Stress on Heart Rate*

Kennedy Randolph

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD861**

*Good Night Sweet Memory*

Hadley Ranes

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD862**

*Electromagnets*

Sam Reinitz

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD863**

*Zooming Ziplines*

Claire Robinson & Diya Modi

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD864**

*Survivability of Mars and Venus*

Emilio Santillan

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD865**

*Powering the Future; Solar Cars*

Akshath Saravanan

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD866**

*How the cookie crumbles*

Malaak Sassi

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD867**

*Does the Amount of Yeast in Dough affect how much it rises?*

Connor Schmelz

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD869**

*Light Intensity Experiment*

Rhea Singh

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD870**

*What's The Beat*

Zavier Soberg

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD871**

*A Country Mile*

Jackson Staalenburg

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD872**

*Clean Water*

Jude Till

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD873**

*PH Precipitation*

Anderson Titus & Zhiche Guo

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD874**

*Teeth Terminators*

Gianna Tretter

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD875***Odd Oobleck*

Marina Triola

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD876**

Beren Uluc

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD877***Tracking Tornado alley*

Lydia Valentine

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD878***Burning Through Fuel*

Ethel Villasana

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD879***Fertilizer Showdown*

Victoria Villasana-Alvarado

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD880***Colors of Sleep*

Alexander Wallis &amp; Jack Hagan

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD881***Bridge Strength: Will Its Structure Make It or Break It?*

Elwin Wang

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD882***Assessing pH Levels of soil in Posey County*

Lillian Watzlavik &amp; Olivia Brass

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD883***Unearthing pH's Power on Plant Growth*

Mary Whitfield

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD884***Fan-tastic!*

Duncan Wu

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD885***Avoid Disasters: The Right Bridge Design*

Presleigh Yates

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**JD886***Fishing line Frenzy*

Clayton Young &amp; Colton Fenwick

Grade: 8

Judging Time: 6:00 - 7:00 p.m.

**JD887***Strength Showdown: arms vs. legs*

Claire Zigler

Grade: 8

Judging Time: 7:00 - 8:00 p.m.

**SENIOR DIVISION: GRADE 9**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

**SD902***Efficient Energy*

Tyler Carson

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SD903***Lung Cancer Diagnosis Using Exhaled VOC Data and Machine Learning*

Jonathan Davis

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SD904***Project Hivemind*

Caelyn Goolsby &amp; Josiah Stone

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SD905***Reusable Solar Energy*

Isaac Jackson

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SD906***electromagnetic accelerator*

Kaden Powell

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SD907***Reactive to Relaxed: Effects of Calming**Supplements on Equine Stress*

Marcus Riecken

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SD908***Tents for Humanity*

Eean Sarikie &amp; Gavin Mitchell

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SD909***A Gravitational Simulation Using a**Computational Model*

Xavier Schrage

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SD910***Make My Mood*

Natalie Weber

Grade: 9

Judging Time: 6:00 - 8:00 p.m.

**SENIOR DIVISION: GRADE 10**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

**SD1002***\*Wanted\* Skate Shoe Alternative*

Owen Goodson &amp; Drake McKee

Grade: 10

Judging Time: 6:00 - 8:00 p.m.

**SD1003***Enhanced Wall Siding Made of Fiberwood**Composite with Polyurethane Rubber*

Gavin Lacefield

Grade: 10

Judging Time: 6:00 - 8:00 p.m.

**SD1004***Skin Deep*

Alexa Meunier &amp; Sahana Veeraraghavan

Grade: 10

Judging Time: 6:00 - 8:00 p.m.

**SD1005***The Calc-Cart*

Connor Reisinger

Grade: 10

Judging Time: 6:00 - 8:00 p.m.

**SD1006***Mycelium Bricks*

Samantha Shrull

Grade: 10

Judging Time: 6:00 - 8:00 p.m.

**SD1007***Sunscreen's Not-So-Sunny Environmental**Impacts*

Sylas White &amp; Elise Eble

Grade: 10

Judging Time: 6:00 - 8:00 p.m.

**SD1008**

*Cipher Solver*

Kaden Wright

Grade: 10

Judging Time: 6:00 - 8:00 p.m.

**SENIOR DIVISION: GRADE 11**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

**SD1101**

*A Gut Feeling About Depression: Examining the Effect of Synbiotic Modification on the Gut Brain Axis on Major Depressive Disorder Symptoms*

Norah Ahmed

Grade: 11

Judging Time: 6:00 - 8:00 p.m.

**SD1102**

*Comparative Evaluation of Storage Abilities and Gastric Deliveries of Different Emulsification-based Microencapsulation Techniques With Lactobacillus rhamnosus GG*

Ethan He

Grade: 11

Judging Time: 6:00 - 8:00 p.m.

**SD1103**

*Time Dependence of Standing Wave Frequency*

Ali Khan

Grade: 11

Judging Time: 6:00 - 8:00 p.m.

**SD1104**

*Comparative Evaluation of Zinc Oxide Nanoparticles Synthesized via Green and Chemical Methods*

Kris Lau

Grade: 11

Judging Time: 6:00 - 8:00 p.m.

**SD1105**

*Eddy The AI*

Arianna Lowery

Grade: 11

Judging Time: 6:00 - 8:00 p.m.

**SD1106**

*The Calc-Cart*

Grant Steele

Grade: 11

Judging Time: 6:00 - 8:00 p.m.

**SD1107**

*The Haulerbot*

Nolan Wong

Grade: 11

Judging Time: 6:00 - 8:00 p.m.

**SD1108**

*Hydroponic Garden*

Payten Davis

Grade: 11

Judging Time: 6:00 - 8:00 p.m.

**SENIOR DIVISION: GRADE 12**

*PLEASE NOTE: Student names and project titles are presented in the program as submitted by the students on their online registration forms.*

**SD1201**

*Gum Flavors Affect On Short Term Memory*

Rebekah Alderson

Grade: 12

Judging Time: 6:00 - 8:00 p.m.

**SD1202**

*Can medical gloves be a vector for bacteria?*

Carly Douglas

Grade: 12

Judging Time: 6:00 - 8:00 p.m.

**SD1203**

*Testing the effects of ultraviolet light on Planarian tissue regeneration*

Jedidiah Galvin

Grade: 12

Judging Time: 6:00 - 8:00 p.m.

**SD1204**

*Testing Effects of Home Remedies on a Sore Throat*

Kayla Jones

Grade: 12

Judging Time: 6:00 - 8:00 p.m.

**SD1205**

*Testing Biodegradable Plastics*

Keegan Meritt

Grade: 12

Judging Time: 6:00 - 8:00 p.m.

**SD1206**

*Effects of essential oils on heart rate*

Adelyn Olander

Grade: 12

Judging Time: 6:00 - 8:00 p.m.

**SD1207**

*Which orthotics material prevents bacteria growth*

Trey Schipp

Grade: 12

Judging Time: 6:00 - 8:00 p.m.

**SD1208**

*Calories burned based on different workouts*

Ava Staples

Grade: 12

Judging Time: 6:00 - 8:00 p.m.

**SD1209**

*On Shaky Ground*

Cameron Swader

Grade: 12

Judging Time: 6:00 - 8:00 p.m.