

INDIANA JUNIOR ACADEMY OF SCIENCE

Report for 2010

Approximately 150 students and teachers representing twelve schools attended the annual fall meeting of the Indiana Junior Academy of Science held at Indiana University Bloomington on November 5, 2010.

Dr. Annie Lang, IU Telecommunications Department gave a keynote address titled "Media Psychology: What you DON'T know about how you process mediated information" that was very well received by the students and teachers. Five competitions and tours of Psychological and Brain Sciences, Chemistry, Kirkwood Observatory, Speech & Hearing Sciences, and Department of Geosciences filled out the remainder of the day followed by the awards ceremony. A brief description and a list of winners for each are outlined below.

1. The Problem Solving Exam

This exam provides students with a fun and meaningful exercise in scientific knowledge and problem-solving skills. Two students from each school who are selected by their sponsoring teacher take the exam. Plaques are awarded to the top two individual winners. We then combine the scores and the school with the top combined score receives recognition in the form of certificates for their students.

This year's winners were:

- 1st Place – Samuel Leung, Marian High School
- 2nd Place – Rob Wilson, North Daviess High School
- 3rd Place – Grant Manio, East Noble High School
- 4th Place – Jacob Burton-Edwards, Project Seed

2. The Issues Presentation Competition

This competition encourages students to learn about the political, social, and scientific issues surrounding the selected topic. This year, the topic was "*Is it safe to recycle coal ash or should the EPA classify it as hazardous waste?*" Each competitor gives a five minute presentation on the topic without the use of visual aids. The students are judged by a panel of peers, and the finalists are then judged by a panel of undergraduate students. A plaque is awarded to the top two students, all finalists receive a certificate.

This year's finalists were:

- Connor Burke, Marian High School
- Gretchen Catron, Northwestern High School
- Nicholas Heshelman, North Daviess High School
- Kwame Newton, Project Seed

This year's Issues winners: Nicholas Heshelman AND Gretchen Catron, Northwestern High School

3. Science Olympiad Competition

This year we held one Science Olympiad competition called "Mystery Architecture." Team members took a bag of miscellaneous materials and were instructed to build the tallest tower that could hold a tennis ball at the top.

This year's winners were:

- 1st Place –Indiana Academy**
- 2nd Place – Project Seed
- 3rd Place – Mitchell High School
- 4th Place – Marian High School
- 5th Place – Northwestern High School

4. ***The Research Paper Competition***

This competition allows students who have carried out an original scientific investigation the opportunity to present their work publicly. Students who wish to compete in this event submit an abstract of their work to the IJAS Director in early October. Twenty-six abstracts were submitted for review and the top twelve finalists were selected by a panel of impartial abstract judges from IU Bloomington. At the IJAS meeting, the finalists give a 10-minute poster presentation to a panel of judges who evaluate them on originality, research procedures, and presentation skill. The second and third place winners receive a plaque. The first place winner receives a plaque and a \$1,000 scholarship from the Hoosier Association of Science Teachers to attend any Indiana College or University.

This year's winners were:

- 1st Place – 92.3 points:** Tyler Barnes, Northwestern High School
- 2nd Place – 90.5 points: Michael Hunckler, Marian High School
- 3rd Place – 86.6 points: Chloe Deranek, Marian High School
- 4th Place – 82.5 points: Jenna Jordan, Northwestern High School
- 5th Place – 79.1 points: Gabriel Stephens, East Noble High School
- 6th Place – 78.9 points: Reece Clark, Noblesville High School
- 7th Place – 77.7 points: Kevin Song, Project Seed
- 8th Place – 74.2 points: Vinayak Gupta, Project Seed
- 9th Place – 72.2 points: Robert Wilson, North Daviess High School
- 10th Place – 70.3 points: Patrick Worthy, East Noble High School
- 11th Place – 67.9 points: Dana Lind, Marian High School
- 12th Place – 44.3 points: Kate Mauk, Noblesville High School

5. ***The Outstanding School Award***

The Outstanding School Award is given to the school with the most participation points. To calculate this score, credit is given for every abstract submitted, more credit for those abstracts accepted for the Research and for Outstanding Junior Scientist competitions, and finally for rank scores for the top presentations. Each school received credit for entering students in the Issues Competition, for having a judge at the Issues presentations, and for entering students in the Problem Solving Exam and Science Olympiad Competition. More credit was given to the winners.

The top three schools and the teachers representing them today are:

- 1st Place – 50 points: Marian High School**
- 2nd Place – 44 points: Northwestern High School
- 3rd Place – 42 points: Project Seed

6. ***The Outstanding Junior Scientist Competition***

This event recognizes those students who are exemplary in overall scholarship as well as scientific ability and achievement. Each school may nominate two students for this competition. The top ten nominees are then selected to compete at the IJAS meeting, where they are interviewed by a panel of judges. The Outstanding Junior Scientist is selected based upon his/her academic record, involvement in original research and extracurricular scientific activities, and the interview. The second and third place winners receive plaques and the Most Outstanding Junior Scientist receives a plaque and a \$1,000 scholarship from the Indiana Academy of Science to attend any Indiana College or University.

This year's winners were:

1st Place – 158.38 points: Tyler Barnes, Northwestern High School

2nd Place – 155.68 points: Vinayak Gupta, Project Seed

3rd Place – 153.70 points: Michael Hunckler, Marian High School

4th Place – 145.75 points: Gabriel Stephens, East Noble High School

5th Place – 140.18 points: Kevin Song, Project Seed

6th Place – 130.50 points: Robert Wilson, North Daviess High School

7th Place – 123.20 points: Ryan Newlon, Northwestern High School

8th Place – 125.80 points: Nathan Kondamuri, Munster High School

9th Place – 122.17 points: Timothy Trippel, Marian High School

10th Place – 92.4 points: Lewis Nugent, North Daviess High School