

# INDIANA JUNIOR ACADEMY OF SCIENCE

Report for 2007  
Submitted November 14, 2007

Approximately 121 students and teachers representing 11 schools attended the annual fall meeting of the Indiana Junior Academy of Science held at Indiana University Bloomington on November 5, 2007.

The day started with an Opening Ceremony where Mr. John Greco, an undergraduate student in the IU Science, Technology, and Research Scholars Program gave a research talk on the "The Tower of London: an fMRI study of the effect of problem structure".

Astronomy was the focus of our keynote speaker, Dr. Constantine Deliyannis who addressed the students just after lunch.

The following seven activities comprise the major portion of the Junior Academy meeting:

## 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 and certificates are given to the students who placed 3<sup>rd</sup> & 4<sup>th</sup>.

This year's winners were:

### Individual Students

- 1<sup>st</sup> Place – Nicholas Buesking, Northwestern High School
- 2<sup>nd</sup> Place – Briana Reprogle, Indiana Academy of Science
- 3<sup>rd</sup> Place – Sujon Phookan, Indiana Academy of Science
- 4<sup>th</sup> Place – Thomas Weiss, Noblesville High School
- 5<sup>th</sup> Place – Janelle Thixton, Eastern High School
- 6<sup>th</sup> Place – Dustin Stanton, Seymour High School

Top Schools – From each school, their two students' scores are combined and the top school is recognized.

- 1<sup>st</sup> Place – Indiana Academy of Science
- 2<sup>nd</sup> Place – Noblesville High School
- 3<sup>rd</sup> Place – Northwestern High School

## 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 "**Plain soap or antibacterial soap: Is one better than the other and why?.**"

**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:

Esther Volmer, Christian Academy of Indiana  
Rachel Dalton, Eastern High School  
Nina Kovalenko, Noblesville High School  
Blane Lawyer, North Daviess High School  
Emily Schubert, Northwestern High School

This year's winner was:

Emily Schubert, Northwestern High School

### **3. *Science Olympiad Competition***

This year we held one Science Olympiad competition called "Road Scholar" where students were tested on their knowledge of map reading.

Winners were:

1<sup>st</sup> Place – Kyla Garrett & Meelyn Pandit, Noblesville High School  
2<sup>nd</sup> Place – Chris Bassett & Mike Doyle, East Noble High School  
3<sup>rd</sup> Place – Todd Grigsby & Chris Ochynski, East Central high School  
4<sup>th</sup> Place – Nathan LeBlanc & Patrick In, Indiana Academy of Science  
5<sup>th</sup> Place – Nick Heshelman & Rob Wilson, North Daviess 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. The abstracts are reviewed by a panel of impartial judges, and thirteen student finalists are selected. At the IJAS meeting, these students 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:

1 <sup>st</sup> Place	Nyssa Boyd, Eastern High School
2 <sup>nd</sup> Place	Janelle Thixton, Eastern High School
3 <sup>rd</sup> Place	Stacey Vosters, North Daviess High School
4 <sup>th</sup> Place	Aaron Martinson, Northwestern High School
5 <sup>th</sup> Place	Jessica Jackson, Eastern High School
6 <sup>th</sup> Place	Kyla Garrett, Noblesville High School
7 <sup>th</sup> Place	Olivia Graber, North Daviess High School
8 <sup>th</sup> Place	Matthew Huffman, Heritage Christian School
9 <sup>th</sup> Place	Aaron Miller, Northwestern High School
10 <sup>th</sup> Place	Emily Lohr, Marian High School
11 <sup>th</sup> Place	Hannah Scudder, North Daviess High School

12<sup>th</sup> Place      Matthew Riesbeck, Marian High School

#### 5. *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:

1 <sup>st</sup> Place	157.02 pts	Stacy Vosters, North Daviess High School
2 <sup>nd</sup> Place	154.57 pts	Jessica Jackson, Eastern High School
3 <sup>rd</sup> Place	147.73 pts	Nyssa Boyd, Eastern High School
4 <sup>th</sup> Place	127.52 pts	Hannah Scudder, North Daviess High School
5 <sup>th</sup> Place	112.95 pts	CJ Hansen, Northwestern High School
6 <sup>th</sup> Place	108.77 pts	Lauren Hodge, Marian High School
7 <sup>th</sup> Place	108.27 pts	Nina Kovalenko, Noblesville High School
8 <sup>th</sup> Place	106.15 pts	Emily Blanche, Marian High School
9 <sup>th</sup> Place	103.70 pts	Aaron Martinson, Northwestern High School
10 <sup>th</sup> Place	98.82 pts	Meelyn Pandit, Noblesville High School

#### 6. *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. More credit was given to the winners.

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

1 <sup>st</sup> Place	42 pts.	Eastern High School
2 <sup>nd</sup> Place	37 pts.	Northwestern High School
3 <sup>rd</sup> Place	33 pts.	North Daviess High School

#### 7. *Educational Tours*

Educational tours of the *Psychological and Brain Sciences*, *Chemistry*, *Lilly Library*, and *Kirkwood Observatory* were given in the morning to give all students attending an opportunity to get an up-close and personal look at some of the great research opportunities the IU Bloomington campus has to offer.