



IB INTELLECT



THE STATE OF ADAMS IB – SPRING 2015

It is a pleasure to once again provide you a review of the ongoing IB Program at John Adams High School. I begin by thanking the families and students who have entrusted our school to deliver an educational program that is without compare. The future for all students who have experienced and taken part in the IB Program is bright. The students will transition to the next chapter in their lives, and as many enter university life, they will take with them the skills they have already learned over the past two years. I thank the parents of each student for their continued encouragement of their children, and their continued support of the teachers and administrators as well. Most importantly, I thank all the teachers who work tirelessly with each student and each course.



A total of 79 English HL students take their IB exam in the A Gymnasium

It is clear that the IB Program continues to grow. This year, we have achieved another record with a total of 31 Diploma candidates who are eligible for the Diploma. Add to this the four IB Diploma candidates who chose to compete with their teammates in the 2015 National Mock Trial Championships in Raleigh, NC, and we would have had a total of 35 IB Diploma candidates!

Each year, the success of the Mock Trial team causes conflict with IB testing, and this year was no exception. In fact, all seven members of the winning team are IB students! Since the International Baccalaureate Organization does not recognize national competitions as a valid excuse in missing IB testing, the only recourse for Diploma candidates is to retake the missed tests six months later. An IB Diploma can still be earned if missed tests are taken in November, 2015. A total of 90 Seniors will receive the IB Certificate for the courses and tests they have completed. Add to this 27 Juniors who tested for the IB Certificate, and another 40 students who anticipate to continue towards the Diploma next year, and we had a record setting 188 test takers registered for 503 tests. Many thanks go to all the volunteer parents who helped in their important role in proctoring IB tests.

Without their help, we could not continue. Thanks go to Kathleen Allin, Alan Bigger, Tatiana Botero-Jauregui, Olivia Bradley, Rachel Bradley, Leslie Callahan, Bridget Conley, Bonnie Douglas, Heather Downey, Mattias Ehnberg, Beth Harsch, Leigh Hayden, Jean Ketcham, Sarah Kolda, Margaret Lloyd, Mary-Ann McDowell, Judie Mengel, Elaine Meyer-Lee, Cheryl Moody, Juan Migliore, Anne Riordan, Becky Reimbold, and Sophie White.

The IB Steering Committee, under the solid guidance of Dr. Kelly Jordan (Dean of Students at Holy Cross College), has continued to develop and dialogue with teachers, parents, and the SBCSC administration. For next year, student representation in the committee is planned. Thanks to all the committee members for their continued support and efforts.



Students took most tests in IUSB classrooms

Next fall, a total of 267 registered incoming Freshman Magnet students will be here. We also anticipate a total of 43 Diploma candidates to continue through the Theory of Knowledge (TOK) course and complete the Diploma. A total of 55 rising Juniors have signed up to take the TOK course in Spring 2016. TOK is also offered through the upcoming summer months which will enable many senior IB students to continue their Diploma studies with more flexibility, while two new courses (Philosophy SL and Geography SL) will be introduced to the students. We will be busy! I wish everyone a wonderful summer, Dr. Mika.



CLASS OF 2015 IB DIPLOMA STUDENTS

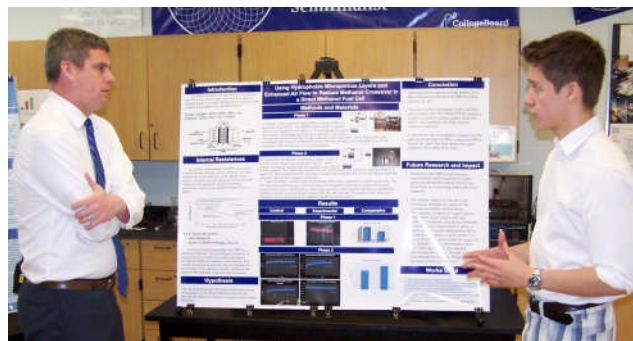
Our graduating IB Diploma class with 31 candidates is the largest in the history of the school. We take this opportunity to identify and share with you the schools where they will study next year. Congratulations to every student! Fly like an EAGLE!

Phillip Bigger – University College
Dublin, Ireland
Sarah Bowling – IU-Bloomington
Christopher Carbonaro – Notre Dame
Aubrey Curl – IU-Bloomington
Grace DeHorn – Wake Forest
Madeline Doctor – Notre Dame
Clare Driscoll – Notre Dame
Kassidy Ekdahl – National Guard
Jessica Frank – Purdue
Caleb Geissler – - Purdue
Nicole Gorman – Notre Dame
Rhys Hamlet – Case Western
Caitlin Hayner-Slattery -
Northwestern University
Alexis Hernandez – Purdue
Sydnee Holland – Univ. of Tampa
Seila Ibrulj – IU-Bloomington
Sydney Imes - Purdue
Alyssa Joyce – Univ. of Richmond
Tess Lesiuk – St.Mary's College
Miriam Lidinsky-Smith – Purdue
Hannah Lindley – Northwestern
Gabriel Meyer-Lee – Swarthmore
Jessica Navarro – U.C.- Berkley
Aaron Rea – Notre Dame
Irvin Rozenblit – IU-Bloomington
Chloe Sherry – Penn State University
Karla Valenzuela – IU-Bloomington
Sarah Villeneuve – IU-South Bend
Rosemary Wisniewski – Marquette
Joseph Yeh –George Washington U.
Skyler Zenisek – IU-Bloomington

TWO IB STUDENTS PRESENT SCIENCE RESEARCH FINDINGS AT MAJOR CONVENTIONS

Due to the finite supply of fossil fuels and the ecological dangers associated with their use, there has been a push in recent years to find new ways of efficiently producing energy. The direct methanol fuel cell (DMFC) is a popular energy producing unit due to its high energy density. One remaining obstacle to the vast commercialization of methanol fuel cells is its inefficiency at high current densities.

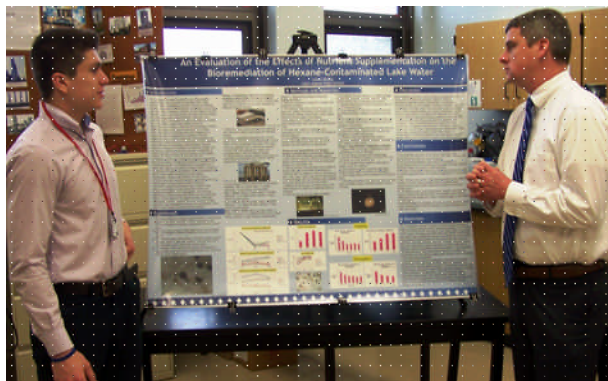
Senior IB Certificate student **Stephen Bauer** used ultra-capacitors as energy buffers to approach this problem, yielding a 33.36% increase in efficiency. Another remaining obstacle lies with the DMFC's inability to process higher concentration methanol solutions as fuel. This is due to a phenomenon known as methanol crossover, in which methanol fuel crosses the proton exchange membrane (PEM) and thus diminishes the voltage of the cell. One aspect of Stephen's work was to insert Hydrophobic Microporous Layers into the PEM of the DMFC to reduce this methanol crossover when the DMFC operated on higher molarity methanol solutions.



Mr. Seitz discusses Stephen Bauer's fuel cell work before his Intel Engineering Presentation.

No country on Earth values their water supply more than Sweden. Their keen interest in an adequate, clean source of water extends beyond their country to the remainder of Earth and as such, they support science investigations focused on drought/flooding, ground water issues, salinization, pharmaceutical problems related to water sanitation and hygiene.

For 17 years, Stockholm Junior Water Prize has congregated the world's imaginative young minds for outstanding competition in the capital of Sweden, encouraging their continued interest in water and sustainability. Each year, thousands of participants in over 30 countries all around the globe join national competitions in hopes of earning the chance to represent their country. We are proud that Junior IB student **Aidan Reilly** was selected as the top Indiana student to present his work at the Stockholm Convention in mid-June. Aidan's work has focused on improving the efficiency of removing ground water pollution by a unique process called bioremediation. In brief, the process involves enhancing the oxidation processes in specific bacteria, which are found naturally in the soil, to remove soil water contaminants. Given the fact there are twelve Superfund sites within a fifteen-mile radius of John Adams High School, this is an especially timely topic.



Aidan Reilly reviews Bioremediation work with Mr. Seitz before his Washington DC Presentation.

THE AMISH VISIT ADAMS HIGH SCHOOL

For the second year in a row, a group of Amish folk came to visit Adams High School on April 22. A total of 12 visitors, including four Grade 8 students from Northside School in Shipshewana were brought to South Bend by Dr. Mika who helped arrange class visits, a pot-luck lunch, and a game of basketball with students. After losing the first game, we were able to recruit some “ringers” to



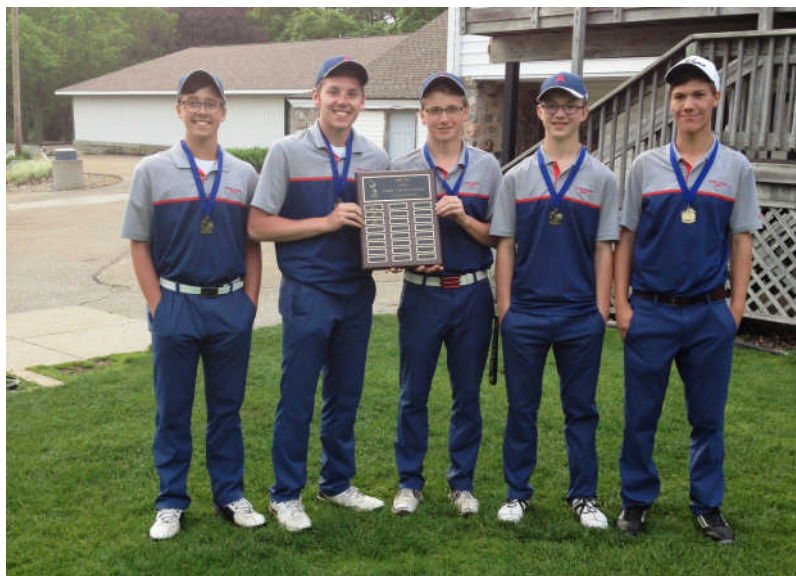
help the senior Anthropology class defeat the Amish for the first time. Our record of wins and losses in friendly basketball games against each other over the past two years is 1-6. More collaboration between the Amish in Shipshewana and John Adams High School is sure to continue in the coming year.

Above: The Amish Gr.8 boys play our seniors in a game of basketball.

On left: Mr. Longenecker hosts the Amish in his research lab.

“IB CAN PLAY” - JOHN ADAMS WINS BOYS GOLF CHAMPIONSHIP!

Who says that IB can't play? There are numerous athletes among the many students that are involved in the IB Program. On May 9, the John Adams Boy's Golf Team won the South Bend City Championship Golf Tournament at Erskine by beating Riley HS by 5 strokes. We are proud to acknowledge the participation of all IB-Magnet students in the team. The winning Eagles Team includes: Nate Bonk (Gr.12 IB), Nate Ritzler (Gr.11 IB), Alec Godfrey (Gr.11), Jack Imbur (Gr.10 Magnet), and Robert Swain (Gr.10 Magnet). Photo of team below courtesy of Mr. Walsh.



Anton Gillespie at Harvard.

LIFE AFTER ADAMS

The *IB Intellect* welcomes updates from our IB graduates. This month we share the success of Anton Gillespie, freshman at Harvard University, Cambridge, MA.

My first year of college has flown by, but has been so memorable. I am very grateful that IB prepared me so well for my college courses. I've especially enjoyed my biology lectures and labs, in which I've been learning a lot about genetics and infectious disease. In lab, I've had the opportunity to sequence portions of my own DNA in order to determine my alleles for traits such as lactose intolerance. Next semester, I plan to declare a concentration in neurobiology. I've also been taking beginning Russian, which has been very difficult but rewarding. The conversational and writing abilities I learned in IB Spanish have carried over into Russian class. Outside of class, I've been playing French horn in the Harvard-Radcliffe Orchestra. Challenging myself in high school has made the transition to college academics very smooth. I highly recommend you challenge yourself with your IB courses now, and you will see the results in the future.

(Source: E-mail from Anton Gillespie to Dr. Mika, April 13, 2015).



Rocking with Matt Rush, drums; Mark Anella, bass; Ian Havens, guitar; and Spencer Higgins, piano. Photo courtesy of Mrs. Stanton.

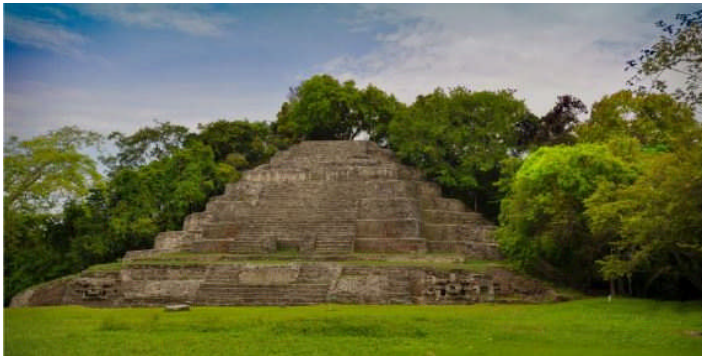
“NIGHT OF THE ARTS” ROCKS!

Kudos to the Junior class of the National Honor Society for organizing the “Night of the Arts” in support of the Robinson Shakespeare Company, a group that teaches local youth about Shakespeare and empowerment. Students worked very hard to make this a big success. The event was held in the school auditorium on May 21 and included an art auction, a food “off” contest, face painting, and numerous stage performances. It was an amazing evening full of very talented students, staff and former students. There was a great crowd and the event raised around \$1,250 for the Robison Shakespeare Program. It is simply amazing to see the wonderful work the students do. Thank you to all the participants and a big thank you to Cecilia Stanton for serving as the sponsor of the NHS and leading this fund-raising effort.

UPCOMING TRIPS ABROAD

Experiencing the world is something that has developed a solid reputation at Adams High School. This coming summer is no exception. Over 30 students and teachers will travel with Mr. Weaver (TOK & IB History) be traveling to London, England and Paris, France, while Dr. Mika will take another group of 10 students and parents to Beijing, China. Both tours will be abroad in late-June.

Students will be interested in checking out some new opportunities for the 2016 Spring Break. Mrs. Elizabeth Drake (English) will lead a trip to Belize, Central America. In Belize, you will explore two different ecosystems—jungle and coastline. You will hike through lush forest, ride a riverboat, and snorkel in the Caribbean. You will also learn about the fascinating history and culture of the indigenous people. You will visit archaeological sites that shed light on the Maya culture. If interested, you will want to check out the tour plans at <http://www.eftours.com/tour-website/1746303ER>



STAY CONNECTED WITH THE IB INTELLECT

Stories from students and teachers are encouraged. Please submit materials to Dr. Mika. The deadline for the first issue of the next school year will be Monday, Sept. 14, 2015. If you would like to be added to the e-mail list for Adams IB Magnet families, please send your e-mail address to Dr. Mika at mroinila@sbcsc.k12.in.us.



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