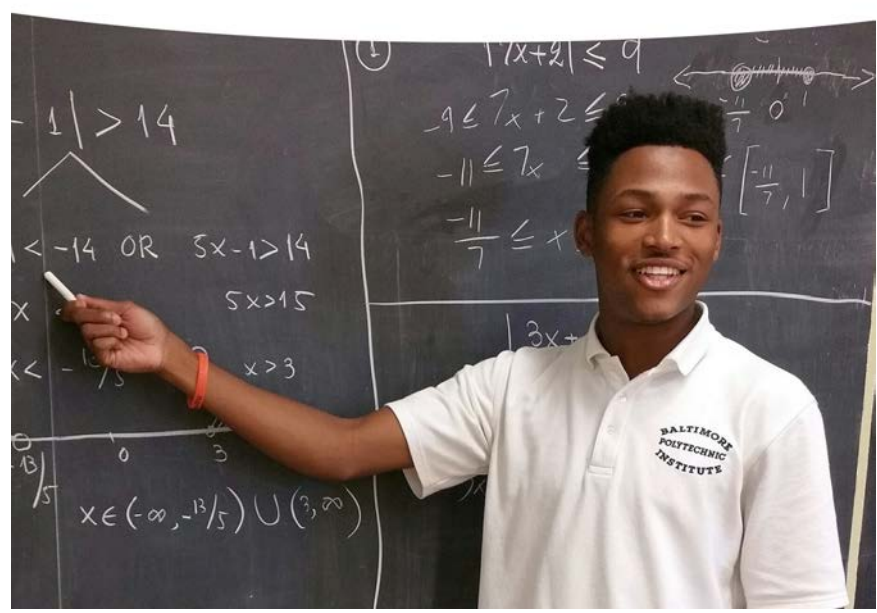


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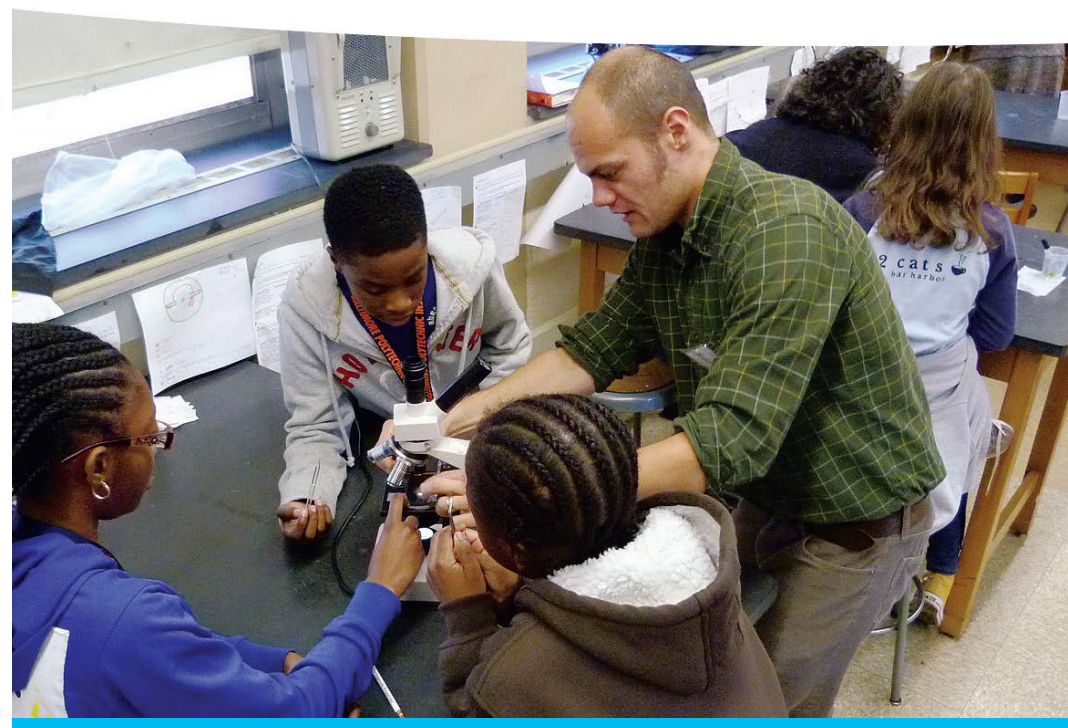


The Ingenuity Project
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Baltimore, MD 21209
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2nd ANNUAL INGENUITY IDEA SUMMIT

Wednesday, April 20, 2016



BALTIMORE IDEAS EMPOWERED

TED-style talks by Ingenuity students and alumni, designed to foster learning, inspiration, and wonder, and to promote the conversations that matter.



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WT

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2nd Annual Ingenuity Idea Summit

and congratulates the Ingenuity Project
in celebrating over 20 years of advanced
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Dear Guests and Supporters,

Just days after last year's first Idea Summit, Baltimore experienced a profound series of events – Baltimore's Unrest. The reactions of our city and coverage across our nation caused many organizations, like Ingenuity, who support the education of Baltimore's youth, to reflect on their responsibility for Baltimore's current state and our role in moving Baltimore forward to a more united, innovative, and empowering city for its people. Ingenuity students were among many across the city who voiced their concerns over what had taken place during the unrest, and have offered interesting ideas for positive change.

Tonight's Idea Summit theme, "Baltimore Ideas Empowered," is a vehicle for Ingenuity students and alumni to express their ideas for Baltimore's future. Students will share their proposals for changing the country's perception of Baltimore and inspire you with stories of bringing opportunity, equity, and unity to our divided and all-too-often underserved education system.

Ingenuity Project is the kind of program that strives to ensure that Baltimore has a strong, long-term future. Join me tonight in learning from Baltimore's next generation of STEM leaders. Our students want you to leave thinking differently about climate change, your perception of what's normal, how we manage procrastination, and a host of other STEM-related topics.

I want to thank Baltimore City Public Schools and the foundations which support our program: Abell Foundation, T. Rowe Price Foundation, Lockhart Vaughan Foundation, Joseph and Harvey Meyerhoff Family, Thomas Wilson Sanitarium for the Children of Baltimore City, Goldseker Foundation, Harry & Jeanette Weinberg Foundation, Jack Kent Cooke Foundation, Aaron and Lillie Straus Foundation, Jacob and Hilda Blaustein Foundation, Hoffberger Family Philanthropies, Northrop Grumman, Robert W. Deutsch Foundation, and Alvin and Fanny B. Thalheimer Foundation.

Our supporters maintain Ingenuity as the longest-standing advanced STEM program in Baltimore City. I also want to give special thanks to tonight's Idea Summit sponsors listed throughout the program.

Lisette Morris
Executive Director
The Ingenuity Project



Johns Hopkins Ingenuity

Johns Hopkins University's Office of the Provost and Whiting School of Engineering

are proud partners of the Ingenuity Project, a leader in STEM education, and congratulate its students on their achievements.

Teno Boone, an Ingenuity Project graduate, was also a Baltimore Scholar at Johns Hopkins University, where he earned a bachelor's degree in chemical and biomolecular engineering in 2013. He is now working at Proctor & Gamble as a Charmin Hubsite Scientist/Engineer in Albany, Georgia



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MISSION

To prepare and launch the next generation of diverse, nationally competitive STEM* leaders from Baltimore City Public Schools.

(*Science, Technology, Engineering, and Mathematics)

RECEPTION COMMITTEE

- Lisette Morris
- Vernise Bolden
- Gale Fletcher
- Shani Ortiz
- Keyha Royster
- Sergei Zverev





Check out our 2016 Summer Baseball Camps, featuring:

- Math and Science of Baseball Camp
- Journalism and Baseball Camp
- All-Star Skills Camp at Johns Hopkins Ballpark
- World Series Baseball Camp at Johns Hopkins Ballpark
- MVP Baseball Camps, end of August

See all info at www.impactsportsbaltimore.com

Testimonials:

"The Impact team has become an integral part of the youth sports landscape in Baltimore. From their work serving RPBL to their great camps such as the Science and Math of Baseball, they serve as positive, enthusiastic, and extremely knowledgeable role models for our youth."

Kurt Overton, RP baseball league commissioner

"As a coach for over 20 years, I have seen my share of what is 'wrong' in youth sports. The coaches at Impact sports are a rare example of what youth sports can and should be. They teach specific skills and techniques in age-appropriate and fun ways. The kids get better and have a blast."

Kim Tortolani, U.S. National Women's Lacrosse Team coach, U19

PROGRAM

- 5:30 PM Cocktails & Appetizers

- 6:30 PM Welcome

 Lisette Morris, Executive Director
 The Ingenuity Project

 Dr. Leana Wen, Keynote Speaker
 Baltimore City Health Commissioner

- 6:45 PM Idea Summit Talks
 Bob Heck, Master of Ceremonies

- 8:00 PM Conversations and Mingling with Students



Investing in our youth
means investing in the future

Supporting STEM education in
Baltimore's Ingenuity Project.



The BPI Foundation is a nonprofit organization whose sole purpose is raising funds to support the goals and mission of Baltimore Polytechnic Institute.

This school year, the Foundation is proud to have funded new technology, and scholarships, and to have facilitated the development of the student-built aquaponics lab in the Engineering Department. In addition, we provided needed financial support to the school's central budget for textbooks, classroom supplies, and other materials. We are here to support the Poly administration and faculty to ensure the success of our students in many arenas.

The BPI Foundation is honored to lend our support to The Ingenuity Project.



Encouraging
Ingenuity
Since
1971.



Founded in 1971, JMT is a 100% employee-owned firm based in Baltimore County that provides engineering, architectural, and related services to public agencies and private clients throughout the U.S. Our staff includes engineers, architects, landscape architects, planners, environmental scientists, surveyors, construction and program managers, inspectors, designers, CADD technicians, and GIS and information technology specialists.

The employees of JMT support the Ingenuity Project, as well as Engineers Week and other STEM activities in Baltimore and beyond. Keep up the great work!

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LEANA WEN, WELCOMING HOST



As Baltimore City's Commissioner of Health, Dr. Wen leads the oldest, continuously-operating health department in the U.S., with more than 1,000 employees. Her transformative approach to public health involves engaging hospitals and returning citizens in violence prevention and launching an ambitious opioid overdose prevention program, which is training residents to save lives. Following the civil unrest in April 2015, she directed Baltimore's medical access and trauma recovery efforts.

A board-certified emergency physician, Dr. Wen received her medical training at Washington University and Brigham and Women's and Massachusetts General hospitals. She was a Rhodes Scholar, a Clinical Fellow at Harvard, a consultant with the World Health Organization, and a professor at George Washington University. She has published more than 100 articles, included in *The Lancet*, *JAMA*, and *Health Affairs*. The author of *When Doctors Don't Listen: How to Avoid Misdiagnoses and Unnecessary Tests*, Dr. Wen's work is regularly featured on NPR, CNN, and MSNBC, and in *The New York Times* and *The Washington Post*. Her TED talk on transparency in medicine has been viewed nearly 1.5 million times.

ROBERT HECK, MASTER OF CEREMONIES

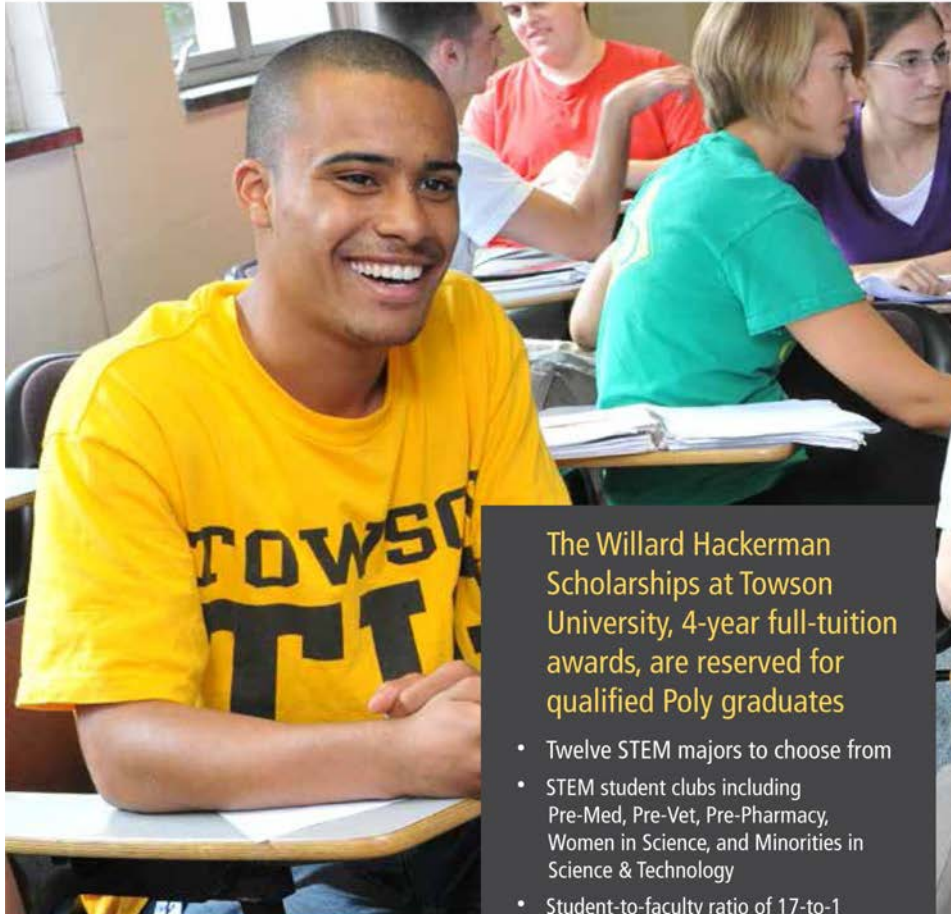


Mr. Heck is an education advocate, a former PTA President, and a former NATAS-DC Board member, and has served for almost 8 years (2007 - 2014) on the Baltimore City Board of School Commissioners.

Mr. Heck's specialties include: Executive Director for National Academy Foundation School of Baltimore, professional stage and television host, celebrity impressionist, writer, and corporate entertainer. For more than 25 years, Mr. Heck has entertained and informed America's Fortune 500 companies with a mix of custom comedy, political humor, and musical presentations.

He has also written and performed in many U.S. government projects, including live presentations, online training, and video productions. Mr. Heck is a Resident Artist and Special Projects Consultant at City Springs Elementary/Middle School, the Baltimore charter school. He assists the principal and teachers in a wide range of areas: acting and theater instruction for students, attendance and anti-bullying initiatives and advocacy for public and governmental support of the Baltimore Curriculum Project.

Nurturing the next generation of leaders at Towson University



The Willard Hackerman Scholarships at Towson University, 4-year full-tuition awards, are reserved for qualified Poly graduates

- Twelve STEM majors to choose from
- STEM student clubs including Pre-Med, Pre-Vet, Pre-Pharmacy, Women in Science, and Minorities in Science & Technology
- Student-to-faculty ratio of 17-to-1
- STEM Teacher Preparation

More information is available from high school guidance counselors.

www.towson.edu/HackermanScholarship



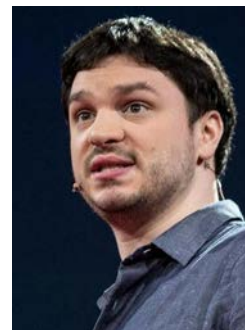
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Thomas Heck
12th Grade
Aquaponics: Education from the Mouth of the Tilapia

Thomas is passionate about aquaponics because the world's oceans are collapsing and aquaponics could take a lot of pressure off of the ocean fisheries. He maintains that at the rate we are going, the ocean's fish population will be decimated within a couple of decades. Thomas' proudest accomplishment in high school was winning the high school Baltimore City Baseball Championship.

What are Thomas' goals for the future? "Become a research ecologist and save species around the world from extinction."



Abe Davis
Alumnus, Class of 2006
Interactive Dynamic Video: Using Cameras to Capture Objects in a New Way

Abe—Ingenuity and Stanford graduate, Intel Science Talent Search winner, and Ph.D. student at Massachusetts Institute of Technology—is working in the field of computer graphics, computational photography, and computer vision.

Abe is best known for his work analyzing small vibrations in video. In 2014, he and his collaborators debuted the "visual microphone," an algorithm that samples the sympathetic vibrations of ordinary objects (such as a potato chip bag) from ordinary high-speed video footage and transduces them into intelligible audio tracks. Abe is also the author of Caperture, a 3D-imaging app designed to create and share 3D images on any compatible smartphone.

Abe is the National Science Foundation Graduate Fellow and Mathworks Fellow. *Business Insider* named him one of the top 50 scientists today, and one of the eight scientists in technology, and *Forbes* named him one of its 30 under 30.



“The Office of Gifted and Advanced Learning wishes to extend its best wishes to the speakers and organizers on the occasion of this 2nd Annual Ingenuity Idea Summit. The diverse topics this year clearly represent a Baltimore whose ideas merit advocacy and empowerment .”

Dennis D. Jutras
 Coordinator – Gifted and Advanced Learning (Pre K – 12)
 Baltimore City Public Schools
 2009 MDCSS Teacher of the Year

Ingenuity Idea Summit Speakers



Marlena Milic
11th Grade
A Native vs. A Nation: The Country's Perception of Baltimore

As a Baltimore native, Marlena loves this city more than any other place she’s ever been. She knows that many people value the truth over misconceptions, and feels it is a huge misconception that Baltimore is crime riddled and a scary place to live. She, therefore, wants to share the truth about her city. Marlena is proud of all that she has accomplished thus far, and sees a future where she can make people happy.

In Marlena’s Own Words...

“I love a challenge, and Ingenuity challenges me in ways that I don’t get in other classes.”



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Hannah Greene
10th Grade
Equity in Baltimore Athletics

Hannah has always had a passion for playing field hockey, but she initially assumed she would have to give up the sport in high school because Poly didn't have a team. However, after starting a team at the school, Hannah not only gained an opportunity to play, but she also learned a great deal about herself and how to accomplish her goals. Thrilled that she was able to bring field hockey to Poly, Hannah has impacted dozens of girls who have discovered their newfound athletic abilities—and now share Hannah's love for the sport. She loves being surrounded by students with a passion for learning, and is inspired to truly understand new concepts. She thinks that Ingenuity creates an environment that nurtures this enthusiasm.

In Hannah's Own Words...

"I work very hard in school, and I am proud when my hard work pays off. I dream of having a career involving medical work in third-world countries. I hope to travel all around the world and have as many diverse experiences as possible."



Harry Huntley
12th Grade
*Aquaponics: Education from the Mouth
of the Tilapia*

Through aquaponics, Harry learned a lot of practical skills, and believes the experience balanced out his regular schoolwork. He is aware that most students do not have this opportunity for hands-on learning, and is excited to share his journey. Harry has been an Ingenuity student since the sixth grade, and his favorite part of the program is being around high-achieving peers who push him. His proudest accomplishment so far has been earning a full-tuition scholarship to the University of Maryland at College Park. (Harry was awarded the Banneker-Key Scholarship.)



ROLAND PARK

*Good luck to all of the students
in the Ingenuity Project,
with best wishes from the
Roland Park Civic League.*



Duane Dennis
Alumnus, Class of 2010
Innovation in a World of Automation

Duane graduated from Massachusetts Institute of Technology in 2014 where he conducted research in the areas of race and gender stratification. In particular he was focused on the relationship between gender and hiring processes. Duane is the CEO of Miramix, a custom nutrition marketplace involved in manufacturing and distribution through an integrated global marketplace. He also joined Tier 5, a Software Development company catering to the needs of startups and boutique shops with expertise in PHP, Word Press, Mobile App Development, and enterprise tools, among others.



Claire Wayner
10th Grade
Changing the Dream of the North: Climate Change and its Inevitability

Claire's talk addresses what she sees as the typical mindset of humanity, and puts climate change into perspective. She believes that, for most, climate change is so broad and seemingly insurmountable that it often results in feelings of despair and submission to reality. By discussing climate change from a different viewpoint, she hopes that others not only reconsider climate change, but begin to think of it as a result of human nature and a phenomenon that can be resolved through human ingenuity. Claire enjoys the deeper thinking skills that she has developed to analyze the world and bring solutions to complex problems. She is most proud of writing and submitting Poly's Maryland Green Schools Application—and hopes that the school earns the certification.

In Claire's Own Words...

"I would like to become an advocate for developing a sustainable society, whether this is as a politician or an environmental engineer."

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Lily DeBell
10th Grade
The Transformative Power of Entrepreneurship Education

Lily has experienced how entrepreneurship education builds necessary skills in young people in a way that allows them to solve real-world problems at the same time. She finds it troubling, however, that the programs that encourage this education are falling out of curriculums, and in doing so, are denying students an extremely valuable learning experience. Lily's favorite part of Ingenuity is being a member of the supportive community of dedicated students, teachers, and parents involved in the program.

In Lily's Own Words...

"My proudest accomplishment in school thus far has been the perspective I've developed through my studies. From the 10 years of school I've received, and particularly the time spent in Ingenuity, the world has become a far deeper and richer place to me. My career goal is to become a doctor, ideally focused on public health issues."



Jasmine Long
11th Grade
Strong, Intelligent, and African-American

Jasmine's topic is important to her because it represents who she is and the challenges she must face as an African-American woman interested in science. She believes that if we as a society confront these issues head-on, we can reap countless, positive benefits from the contributions of people who are underrepresented in STEM fields. Jasmine enjoys all the opportunities and connections facilitated by Ingenuity, and feels they allow her to nurture her love for math and science through accelerated classes.

What is Jasmine most proud of?

"Starting breast cancer research at the Johns Hopkins Sidney Kimmel Comprehensive Cancer Center...it's a big step towards achieving my goals, careerwise, and it is something I am sure my great-grandmother would be proud of because she passed due to cancer, and my grandfather is currently dealing with prostate cancer."



CTY

The Johns Hopkins Center for Talented Youth, with programs around the United States and the globe—from Washington, D.C., to Hong Kong—is dedicated to developing the world's brightest K-12 learners.



cty.jhu.edu

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Sydney Worsham
11th Grade
Three Things Baltimore Can Learn From Xiamen

Sydney is an avid enthusiast of Chinese language and culture. She believes that many foreign virtues may also be great habits for Americans to adopt. In light of the recent decline in Baltimore's image and general lack of awareness about China, Sydney views her talk as an opportunity to enlighten and inspire those around her. She likes the abundance of opportunities that Ingenuity provides and is proud of the fact that she learns something new every day.

What are Sydney's goals for the future?

Happiness. College. A Career.



Sarah Bowden
11th Grade
Birth Defect... Or Is It?

Sarah has a very personal connection to her talk topic. She was born with a cleft lip and palate, giving her a unique perspective on life and what it means to be "normal" – and teaching her that "normal" doesn't really exist. Sarah likes a challenge and enjoys Ingenuity's more rigorous curriculum and research opportunities. She is particularly proud of writing and performing her own play for National History Day during her sophomore year, which earned her a trip to Nationals where she had fun being surrounded by students who shared her love of history.

In Sarah's Own Words...

"I'm considering pursuing a career as a pharmacist, but whether or not I do that, I really want to be a writer and share stories with other people. I'm working on a murder mystery right now."

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Wayne Nelms, Jr.

7th Grade

The Science of Procrastination

Wayne believes that the subject of procrastination impacts many, if not all, people in our society, including himself. He asserts that if we know how procrastination works, we can find ways to combat it. Wayne's favorite part of being in Ingenuity is his science class, where he enjoys the labs and opportunity for hands-on learning. Wayne is also honored to learn from Poly's math instructor Dr. Goldenberg, and considers this his proudest accomplishment to date.

In Wayne's Own Words...

"I would like to become one of three things: a neurologist, a bio-medical engineer, or a professional tennis player. I would also like to continue playing music."



Jordyn Blanding

7th Grade

KT Tape: Science or Belief

Jordyn's topic matters to her because she is an athlete and knows firsthand what it feels like to be sore after a strenuous workout, and hopes her own positive experience with KT Tape will help other people with their body pain and everyday joint soreness. As an Ingenuity student, Jordyn likes that she is constantly being challenged in her work and daily classes. She is proud of making honor roll this quarter.

In Jordyn's Own Words...

"My goal for the future is making principal's list for the remainder of the school year and continuing to be on the track team."