
# The EDUCATIONAL Foundation

## OF THE NORTH PENN SCHOOL DISTRICT

## 2016-2017

# Funded Grants

A Note from the Trustees:

For this year's grant cycle, the North Penn Educational Foundation awarded 27 grants totaling $21,089. These grants have benefitted students at each grade level.

Grants like the selection described below not only enhance the curriculum but provide a hands-on and innovative way for students to embrace and fully comprehend the lesson. When NPSD educators apply for these grants, some think of how this experience will affect the student in the future. Science and technology grants allow students to understand theories at the next level of thinking. Other grants allow teachers to think about how this experience will benefit students socially and vocationally. We are sure that when you read through these grant descriptions you will see how these experiences allow our students to develop into better students and citizens.

These grants positively affect NPSD students. Without you and your generousity, the NPSD students and staff would not have access to these amazing opportunities.

**Adventures at American Treasure Tour -** Oak Park Elementary School; *Geretha Billetz* ★★★★

More than 50 English Language Learners in grades one through six will travel to Oaks, PA to experience a massive, indoor collection of "Americana" from antiques leading into pop culture at the "American Treasure Tour." Students will learn about the history of mechanical music and view classically preserved automobiles. The mechanical musical display includes hundreds of machines such as Nickelodeons, band organs and music boxes. This museum has a jam-packed display of animated store window advertising, dolls, doll houses, model airplanes, plus circus, patriotic and holiday items. The interactive tour is full of surprises to help students gain a better understanding of American culture from the past and present while developing vocabulary and background knowledge through viewing and interacting with these items first hand.

**Art Field Trip to Steve Tobin Studios and Sculpture Materials -** Pennfield Middle School; *Nanette Velayos* ★

More than 110 students studying art in ninth grade will travel to Steve Tobin Studios in Quakertown, PA for a tour and question and answer session with the artist. Students will have the opportunity to experience a working studio and appreciate the steps and commitment needed to achieve a successful career as an artist. Students will comprehend that math, science, literature, social issues and many other influences help form an artist's style, work and philosophy. After reviewing the elements and principles of art, students will analyze Tobin's work and understand how the elements are applied in his sculptures. Students will draw inspiration from Tobin's sculptures in order to plan, design and create a sculpture of their own or a larger group sculpture.

**Business Wall Street Experience -** Pennbrook Middle School; *Amy Cardamone and Kay Beard* ★

More than 100 ninth grade students studying business will tour Wall Street and the 9/11 Memorial in New York City, guided by former traders, bankers and others with insider knowledge. The history of Wall Street is filled with booms and busts and students will hear stories of great achievement as well as what brought about the economic collapse of 2008. Prior to the trip, students will spend time studying the difference between savings and investing, and learning to distinguish between stocks, bonds and mutual funds. They will also analyze the growth of stock investments by participating in a stock market simulation where they make decisions regarding buying and selling stock investments of their own. By touring Wall Street and participating in class discussions and activities thereafter, students will gain deeper knowledge and respect for personal finance and the importance of investing on a larger and more complex scale.

**Embryology -** Walton Farm & Knapp elementary schools; *Melissa Walsh* ★

This project will provide nearly 200 students in the Gifted Program the opportunity to develop the ability to conduct scientific inquiry through the embryologic process of baby chicks in the classroom. Students will become familiar with how the chick embryo develops from a fertile egg up through hatch. They will be able to experience first-hand the characteristics of the embryo at various stages of development. This will be done through studying posters, books, internet and observation of actual eggs incubating in the classroom. Students will be responsible for caring for the eggs as they develop in the incubator and caring for the chicks in their first few days of life. Students will then take their knowledge back to their general education classroom and educate their peers.

**Fossils for the Future -** A.M. Kulp; *Rebecca Cucuzza* ★

Nearly 20 ESL students in grades two-sixth will travel to the Lost River Caverns, a natural limestone cavern in Hellertown, PA to gain a better understanding of cave formation. A tour of the caverns will expose students to aspects of the natural world they simply can't experience anywhere else. The students will see an abundance of crystal formations within five chambers such as stalactites, stalagmites, helictites, flowstone, columns, soda straws, rimstone and anthodites. Students will also observe a unique array of fluorescent minerals. Following the trip, students will be able to access content vocabulary and will give content-related oral reports which identify precise details, descriptions and comparisons that support their explanations.

**Frictionless Physics -** Penndale Middle School; *John Collier and Matt Wendell* ★

This grant will purchase an air track for more than 450 students in ninth grade studying Physical Science, which studies forces and the laws of motion. This air track will provide students the opportunity to observe motion with little to no friction, allowing students to see how an object in motion stays in motion and how momentum is conserved during collisions. When learning about friction, forces, Newton's Laws, momentum and energy, this apparatus will enhance curriculum with a visual and kinesthetic component. The hands-on experience should be very beneficial to our students by allowing them to observe firsthand some of the concepts discussed during physics units.

**From Farm to Table -** Hatfield Elementary; *Andrea Bowers and Monisha Mukerji* ★

More than 40 students, many for the first time, in grades one-five in the ESL program will travel to a farm to experience first-hand how a working farm produces milk and crops. They will interact with farmers to learn what goes on during the farming process. This will include understanding the step-by-step process of how milk is brought from farm to store. In addition, they will also be able to see various farm animals, learn about the harvesting process and Johnny Appleseed while experiencing traditional fall festivities.

★ *English as a Second Language* ★ *Family Outreach* ★ *Health/Physical Education* ★ *History/Social Studies* ★ *Music/Arts*
★ *Other* ★ *Reading/Writing/Language* ★ *Science* ★ *Special/Gifted Education* ★ *STEM*

EITC: YOUR BUSINESS + NPSD + OUR STUDENTS = A WINNING COMBINATION

NPSD Educational Foundation has been approved by the PA Department of Community and Economic Development (DCED) as an Educational Improvement Organization (EIO), meaning that our organization can accept Pennsylvania Educational Improvement Tax Credit (EITC). The EITC makes it affordable for you to contribute to the education of Pennsylvania's children and make a foot print in our community.

**Ionic and Covalent Compounds' Properties: Conductivity** ★
Pennfield Middle School; *Jennifer Conroy-Schwartz*

One of the topics covered in Physical Science is ionic and covalent compounds. In the past when this was taught, classes focused only on the microscopic properties, which is any property that is too small to experience with our senses. However, many students struggle to learn abstract concepts that they cannot see, especially when they have little experience with the subject. This grant incorporates a lab that looks at properties of ionic and covalent compounds in a way that students can visualize and experience first-hand, such as melting point and solubility in water and mineral spirits of ionic and covalent compounds. This lab will help over 180 school students to set foundation experiences on which to build abstract concepts.

**Language Arts Boxes** ★
District Elementary Schools, Extended School Care; *Marjie Scott*

This grant will provide materials to create "Language Arts Boxes" that can be rotated throughout the elementary schools for use by over 600 students in the NPSD Extended School Care Program. These boxes will be filled with word puzzles, Madlibs, word games such as Scrabble, Scrabble slam, Banana-grams, trivia cards and choose-your-own storybooks that will encourage students to read under the guise of fun. This project will provide enrichment opportunities for students to develop critical thinking and reading skills, build comprehension and improve writing and verbal skills. Students who require more practice in these areas will have the chance to do so while having fun.

**Nanotechnology and Engineering Research** ★
North Penn High School; *Michael Boyer*

The Future is N.E.A.R. (Nanotechnology Education and Research) Program provides students opportunities to gain essential STEM (Science, Technology, Engineering & Mathematics) skills to become leaders in a technological society while allowing them to engage in the engineering design process which utilizes meaningful, challenging and relevant global issues. Nanotechnology research is performed by senior Engineering Academy students. Each year, 10 or more student teams perform research in various arenas, from organic and natural water filtration to energy creation (piezoelectricity) and more. This grant will purchase materials necessary for students to complete their research and take their ideas and projects from concept to reality.

**North Penn Jazz Night Guest Artist** ★
District-wide; *Bob Kennedy*

This grant will provide the opportunity for a guest clinician/soloist to perform and rehearse with over 200 students in grades 4-12 who are a part of the seven jazz ensembles at North Penn. The guest artist will instruct and interact with the students, giving them the experience of learning from a professional in the field. The event will conclude with a concert that the entire community can benefit from which showcases North Penn's talented students coupled with the fantastic abilities of the soloist at North Penn Jazz Night on Monday, April 10, 2017.

**North Wales News Program** ★ ★ ★
North Wales Elementary School; *Derek Fickert*

The North Wales News Program has been a successful and enjoyable program at North Wales Elementary School for quite some time. NWTV develops a news program that shares pertinent information with the entire school community. Students, staff, families and community members benefit from the news shows and highlights, which are worked so hard upon by students to produce and create. Through the purchase of new equipment for NWTV, students will learn about inputs, use of appropriate audio equipment and the ability to film with a more professional look. It will also allow students to take filming from the small room which was previously used to film, to the entire school and outside events with the use of a portable device.

## THE PAUL MURPHY MEMORIAL FUND

The Paul Murphy Memorial Fund was established in the fall of 2013. Carolyn Murphy, a Foundation Trustee, a member of NPSD Board of School Directors and a retired North Penn High School German teacher, wanted to honor her late husband and benefit the Foundation at the same time. With the help of her son Michael, the fund was established to support science-related projects for years to come.

**Penndale Mural Enhancement Project** ★
Penndale Middle School; *John Corson*

The walls of Penndale Middle School will be covered with a series of murals. These murals will be designed and executed by students using the elements of art and the principles of design taught through the art curriculum. These murals will be a lasting memory of the students' educational experiences and will create a sense of pride, both by the students that create the actual painting and by the students who walk the hallways every day. This grant will provide funding to create a working studio in the form of a wall mural to continue what has now become a tradition at Penndale. The students will learn about improving their environment through planning and hands-on, hard work.

**Pennsylvania Shakespeare Festival Will Power Tour** ★ ★ ★
North Penn High School; *NPHS English Department*

*The Will Power actors from DeSales University will travel to NPHS to perform a truncated 90-minute show of William Shakespeare's Hamlet for Theatre and English students in grades 10-12. Following the performance, the company will provide a discussion about performing and technique. This professional performance offers students the rich texture of the play, the complexity of the characters, their motives, and relationships, the brilliance of the dialogue and the true staging of a Shakespearean tragedy. Bringing a visual performance of Hamlet to the stage will help students study drama, specifically engaging and immersing them in Shakespearean language and poetry.*

**Philadelphia Orchestra Field Trip** ★
Gwyn-Nor, Knapp & North Wales elementary schools; *Sonya Hoffman and Heidi Hopf*

Some students may grow up never having the opportunity to experience a live performance by a professional orchestra. This grant will allow over 235 students to do just that. Students will attend a concert at the Kimmel Center of Performing Arts in Philadelphia performed by the Philadelphia Orchestra. Prior to the trip, students will spend time researching and studying the music that will be performed as well as the history of its composers. Following the performance, students will evaluate and review the concert. Attending this concert will bring classroom studies to life while also teaching students proper concert etiquette.

**Progress in Plant Propagation** ★
North Penn High School; *Daniel Krueger*

Student members of the NPHS Marine and Botanical Society as well as students studying botany at NPHS will have the opportunity to propagate greater variety of plants in the greenhouse and in science classrooms to be used as a learning aide. The current greenhouse at NPHS is designed to house and maintain specimen plants which are used in the botany curriculum. However, the design of the greenhouse limits the ability to propagate plants from seeds or cuttings. This grant will be used to purchase heating pads, germination chambers and trays which will allow the botany students and club members the opportunity to dedicate a section of the greenhouse for seed germination and plant propagation. In addition, the fluorescent light fixtures and bulbs purchased from this grant will allow students to germinate seeds and grow plants in science classrooms where variables can be more easily controlled. Students and club members will experience plant propagation techniques with a hands-on approach.

**Propagating Progress** ★
North Penn High School; *Shane Misuro (teacher), Sean Rich and Mikala Camburn (work study students)*

This grant will provide more than 50 student members of the North Penn Marine and Botanical Society the opportunity to breed and propagate a variety of fish and coral. Currently the Marine Science Program has over 300 gallons of fresh and saltwater tanks that were researched, set up and maintained by students. Unfortunately, each of the organisms in the tanks had to be purchased at local aquarium stores. This led to under stocked aquariums and many students not having access to the necessary organisms to create a complete tank ecosystem. This grant will solve this problem by creating the capacity to breed fish and coral in school to stock the tanks, thus allowing students to work with a greater variety of organisms. Knowledge of breeding and propagation systems is a skill set that is among the most desired and advanced practices any aquarist or fish scientist can obtain.

**Rachel's Challenge Presentation** ★
Pennfield Middle School; *Timothy McCloud*

The entire student body will have the opportunity to experience a renowned assembly program called "Rachel's Challenge." "Rachel's Challenge" is a program that was started by the father of 17-year-old Rachel Scott, the first victim shot and killed at Columbine High School in 1999. The program provides a series of platforms and strategies that awaken and equip students and adults to sustain the safe, caring and supportive learning environment essential for academic achievement. Programs are based on the life and writings of Rachel, whose legacy of deliberately reaching out to those who were different, new at school or picked on by others is the basis for strategies that help schools promote a positive learning environment by sustaining a climate less susceptible to harassment, bullying, suicide and violence. Rachel's Challenge provides a sustainable, evidence-based framework for positive climate and culture in schools. The program has proven to achieve statistically significant gains in community engagement, faculty/student relationships, leadership potential, and school climate; along with reductions in bullying, alcohol, tobacco and other drug use.

**Reading Super Bowl** ★
District-Wide Elementary Schools; *Cheryl Neubert*

The annual North Penn Reading Super Bowl, held in conjunction with the date of the NFL Super Bowl, takes North Penn Knights football players to visit all 13 elementary schools. The Knights read to students and emphasize its importance. Each year, the number of students who participate in this district-wide activity increases. The original Reading Super Bowl had 30 football players who read at eight elementary schools. In the 2014-2015 school year, there were 82 players who read to over 5,600 students in 238 classrooms in all 13 elementary schools. The Reading Super Bowl fosters an interest in youth reading and showcases the fact that "everyone" reads.

**Science in the Everyday World** ★ ★
Pennfield Middle School; *William Laufer*

Students will have the opportunity to read about experiences in the science realm which are written in language that is easily understandable and relatable through the subscription to the magazine "Science World." Science World is a scholastic science magazine that is published biweekly. It contains short articles that are readable in 10-15 minutes and give insight into how science impacts the world. The subscription for one year includes 12 issues, teacher guides with lesson plans with alignment to the common core, posters and online access to relevant videos and archived past issues.

**Self-Awareness through Art Expression** ★
Northbridge School; *Marcia Lucas*

The entire student body will benefit from the use of art supplies to be used in each subject area. Visual Arts programming provides opportunities for self-expression among numerous other benefits across the curriculum. By actively illustrating the "artistic" aspects of core academics, students have made many connections. These positive experiences will continue to provide students with appropriate coping skills that they can utilize in the future and share with others. By practicing and re-learning processes, students can discover the multi-sensory benefits of creating something from idea though concept to a physical finished piece. The value of the act of creation and collaboration is priceless and transferable to a multitude of occupations and career paths.

**Sphero Robotics** ★
Pennbrook Middle School; *Nicasio Lorenzo*

Sphero is a robotic ball unlike any other gaming device seen before. It is controlled with a tilt, touch or swing of a smartphone or tablet. Compatible with both iOS and Android, Sphero delivers a unique mixed-reality experience. Funded previously by the Foundation, Sphero Robots are currently a part of the ninth grade Applied Technology major curriculum. The equipment purchased with this grant will allow the opportunity for students to learn how to program their robots to complete an obstacle course. Students will work in groups to learn to problem solve as they program their robots to tackle this difficult course. This project will be used as part of the curriculum as well as offered as a week-long summer camp opportunity.

**Thanks for the Tanks Improvement and Creation** ★
North Penn High School; *Shane Misuro (teacher), Sean Rice and Mikala Camburn (work study students)*

The NPHS Marine Science Work Study Program allows students to build various tanks that they research, design and build. This grant will be used to provide the materials necessary to improve the existing coral tank and planted freshwater aquarium systems already being used in marine science, as well as allow the next generation of marine science work study students to build their own research tanks. These tanks and the organisms they contain are used for demonstration and experimentation purposes in Marine Science as well as Biology. Improvement to current tanks will allow them to house a wider variety of specimens thus advancing the current program and the education of all the students in marine biology.

**Unified Bocce** ★ ★ ★
North Penn High School; *Kathie Kerper and Kristen Panaski*

Students will form a Unified Bocce team consisting of both students with and without intellectual disabilities who will compete in the Special Olympics Unified Sports® league. Unified Sports creates an opportunity for people without intellectual disabilities to join in the sports experience by playing on a team with athletes with intellectual disabilities. Unified Sports combines equal numbers of Special Olympics Athletes and athletes without intellectual disabilities (called Partners) on sports teams for training and competition. Not only do all the players have fun, but attitude change and transformation happens on the playing field and the experiences create lifelong friendships.

**Virtual and Augmented Reality System Development: Research and Development for Educational Purposes with Technology** ★ ★ ★
North Penn High School; *Michael Boyer*

The objective of this grant is to capitalize upon the upward trend of Augmented Reality (AR) and Virtual Reality (VR) technologies to enhance the current education system, educational processes and to provide students with unique opportunities to learn difficult and abstract content. This grant will reach two highly motivated junior engineering academy students in the Engineering Design and Development course. Their objectives are to design, develop, prototype, test and deploy a VR and/or AR headset to enhance the educational process. Their plan is to utilize Virtual and/or Augmented Reality to improve the learning process of novel, complex content through use of this grant.

## THE NPSD EDUCATIONAL FOUNDATION & THE NP ALUMNI ASSOCIATION: A PARTNERSHIP WITH THE PAST FOR THE FUTURE

In 2012, the NPSD Educational Foundation, in conjunction with NPSD administration launched the North Penn Alumni Association as a committee of the Foundation. The association's mission is to encourage networking and communication among North Penn School District alumni and to help maintain and enhance the legacy of North Penn schools for future generations. We hope to see more graduates join us for NPSD and Foundation events, attend reunions and stay informed on the happenings of the district.

We see that NPHS graduates do great things, but what is the most amazing is the pride one takes in saying they are a graduate of North Penn High School. Whether a member of the Class of 2014 or someone who is celebrating their 50th reunion, alumni see North Penn High School as a place that helped to shape them into whom they are today. We are confident that with the support of the community and the 40,000 NPHS graduates, the North Penn Alumni Association with help the Foundation in leaving a lasting effect on our students and North Penn School District. For more information on the North Penn Alumni Association, please visit www.NorthPennAlumni.org.

★ *English as a Second Language* ★ *Family Outreach* ★ *Health/Physical Education* ★ *History/Social Studies* ★ *Music/Arts*
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**3D Scanner Skanect/Xbox Connect Project**
Technology Education
North Penn High School; *Curt Reichwein*

The Technology and Engineering Department at NPHS has been using basic 3D scanners in the classroom for the last few years. As 3D scanners come at a high cost, Mr. Curt Reichwein and Bill Michael researched options for more advanced, affordable printers to be used in the classroom at NPHS. They came to the solution of building their own custom computer to reach their objective of scanning objects to incorporate them into reverse engineering projects that could be used for product improvement design challenges. This grant reaches each of the students in the Technology Education program at NPHS. The addition of this equipment allows students to go deeper in to the design process and truly develop working prototypes for products that could not be previously completed.

**Nanotechnology & Engineering Research**
Technology Education
North Penn High School; *Michael Boyer*

Nanotechnology Education and Research is an innovative and cutting edge field that has become a focus in the Technology and Engineering Department at NPHS. Nanotechnology engages students in the engineering design process needed to conquer challenging and relevant global issues. This grant is reaching the more than 50 students involved in the Engineering Design and Development class and in the Engineering Projects in Community Service club. The materials and equipment obtained from this grant will be utilized for many years to come. Grant funds will be covering the cost of researching all of the following areas including Energy Harvesting Roof Shingles, Non-Newtonian Fluid based materials to prevent concussions, magnesium fuel cells, advanced battery separators, thermoelectric fabrics, shape memory polymers, and Virtual Reality in Education.

**Planted Discus Tank for Marine & Botany**
Science
North Penn High School; *Mikala Cambarn and Shane Misuro*

The objective of this grant is to provide the North Penn Marine Science Program with the supplies needed to design, create and maintain a planted discus tank. It will be the most unique of all the tanks produced so far, asd it will not only be an attractive display of plants and fish, but it will also provide a common tangible link between marine science and botany classes. This project will give students a more interesting and engaging way to learn about the underwater world, and its links to land plants as it can be used in both marine science and botany classes to interest students with a hands on example of how plants and fish interact and effect each other in the natural world. Current students of both courses would be able to see, touch and experiment on a deeper variety of organisms that this tank would house allowing about 500-600 students to benefit from this grant.

**Improvements to The Current Reef Tank**
Science
North Penn High School; *Shane Misuro*

For that past few years, the Foundation has been funding a plethora of grants to endow the Marine Science courses and the Marine and Botanical society with tanks to hold and develop many species of coral and fish. This grant will make the needed renovations to the tank possible. Students benefit because the tank provides a ready supply of organisms for student experimentation, interaction, and demonstration during lessons in growing and housing many diverse speices of marnie life.

**North Penn High School Show Tank**
Science
North Penn High School; *Shane Misuro and Daniel Krueger*

This grant is being used to construct, design, and maintain a 125-gallon salt water fish tank that serves as a hands on learning opportunity in science classrooms, aiding student learning about ecosystems. The grant is facilitating the purchase of an Aquion 125-gallon glass reef ready tank, stand, and canopy, as well as the materials needed to fill the tank; this includes Fluvial LED light strips, an Aquarium wet/dry filter with protean skimmer, a trickle filter, an external pump on a battery backup, a titanium heater and external temperature controller, an automatic top-off controller, water De-ionizer, 5-10 medium – large salt water fish, crushed coral substrate, and 200lbs of coral rock. More than 150 students in the Marine Science classes and Marine and Botanical society will benefit from this purchase.

**Mantis Shrimp Tank**
Science
North Penn High School; *Shane Misuro and Sean Rice*

9 tanks, running 500 gallons of water are currently being maintained by the Marine science work study students at NPHS. All of these tanks have been purchased, and funded by grants provided by the North Penn Educational Foundation. The new tank that will be created using this grant will house a mantis shrimp. Marine science students in North Penn High School will get to see this organism for themselves after having learned about them in class. This grant is moving learning from theory to practice with specialized custom tank design and maintenance.

**Honey, I Shrunk the Reef**
Science
North Penn High School; *Daniel Krueger*

Although several aquariums have already been setup in the marine science program over the past three years, reef tanks require specialized equipment to meet the conditions that reef organisms need to survive and thrive in an aquarium. The specialized equipment makes reef aquariums very expensive to build and maintain, which results in many students completing the marine science course without ever seeing live coral truly understanding and appreciating these organisms. This grant will allow for NPHS Marine Science classes to build a nano reef tank in both classrooms so that all marine science students can view and interact with living corals and other reef organisms. These 20-gallon and under tanks will continue to help us create an interactive and fun learning environment at NPHS.

**Rick Mikula Butterfly Presentation**
Science
Bridle Path; *Maureen Zazyczny, Liz Melville, Suzanne Sylvester, Nancy Kahn*

This grant will be impacting the first grade at Bridle Path, by allowing them to further their butterfly knowledge. Because of the money designated by the foundation, Rick Mikula, who is a renowned Butterfly expert who has traveled the world studying butterflies, was able to come speak to the students.When he spoke He brought with him an amazing amount of knowledge and butterfly samples from all over the world. He discussed the life cycle,and brought live butterflies for the first graders to see.

**Thermal Imaging and Heat Loss**
Technology Education
North Penn High School; *Michael Voichecki*

Thermal imaging is the technique of using the heat given off by an object to produce an image of it or locate it. This grant is facilitating the purchase of two Flir TG167 cameras, which are used to take pictures and show the heat signature of the images. Roughly 60-80 students will benefit from every year that the equipment keeps working to provide a real world application to thermodynamics, connecting students with theory and applying content in heat and energy. This project is a great way to involve students with parents and get them talking about applications for theory in heat and energy and getting them to evaluate their homes for energy efficiency, learn to effectively become an energy auditor, which is a profession you can train in.

**Odyssey of the Mind Funding**
Family
Outreach/Guidance/Mathematics/Music/Arts/Reading/Writing/Language/Science
Montgomery; *Laureen Valentine and Lisa Upright*

Odyssey of the Mind (OotM) teaches creative problem solving program which encourages students how to think divergently by providing open-ended problems that appeal to a wide range of interests. The Foundation grant will allow Montgomery's team to have access to materials used in competitions and travel expenses to the competitions, school and team registration and OotM shirts to wear during the competitions. Odyssey of the minds objective is to encourage creative ways of working out problems which may not be done in the classroom due to time concerns. The money designated by the Foundation will help keep the program alive at Montgomery.

**Creature Features**
English as a Secondary Language;Reading/Writing/Language;Science
Hatfield; *Andrea Swan*

Hatfield students will be able to have an up close and personal look at various animals, their habitats, and environmental adaptations because of this North Penn Educational Foundation grant. 40 ESL students throughout grades 1-6 will participate in the Creature Features field trip to The Elmwood Park Zoo. This learning opportunity will provide experiences to enhance their vocabulary and comprehension which they can apply to text. Every student benefitted from making real-life connections to the topics they have been studying in the classroom, enrich their vocabulary, and increase their knowledge about wildlife.

**Flexible Seating**
Reading/Writing/Language
Nash; *Amy Benner*

The North Penn Educational Foundation is offering students at Nash the opportunity to have flexible seating, which will allow them to set themselves up in the most conducive environment for their learning. This year alone 45 students will benefit from this project. The money provides for the purchase of Basics Balance balls, Kore patented Wobble Chairs, and Norwood Commercial Furniture Plastic Stack Stools. Flexible seating allows students to expend a little of their energy so that they can keep on task. Having an environment where students the students are engaging with one another, collaborating and communicating is exactly what we would all like to see in today's classrooms.

**Standing Table Stations**
History and Social Studies/Mathematics/Reading/Writing/Language/Science/Special Education/Gifted Education
Nash; *Amy Gerhart, Kelly Crits, Tanya Neuman, Calvin Kuiken*

59 sixth grade students at Nash Elementary will be benefitting from standing desks or tables that lead to better engaged students, better assessment results, less behavioral issues, and increased student activity. Research shows students to be actively engaged in the activities occurring in the classroom with the desks. This grant allows for the purchase of 8 Black Adjustable Round Tables to be used in the classroom to help improve the educational experience.

**Lit Fest V**
Reading/Writing/Language
North Penn High School; *Elizabeth Weizer, Kevin Manero, Megan Schmidt*

The Lit Fest event will give honors students a way to see their knowledge put into practice in a meaningful way. While many of our honors students are grade-focused, LitFest V will give our students a way to apply their knowledge in practical ways. The foundation funds help in purchasing the trophy, decorations and prizes for this fun and exciting day. Students create artwork, deliver speeches, collaboration as they take part in the Knowledge Bowl, which is something that will never leave them and will help them find success in the future.

**ESL Trip to the Elmwood Park Zoo**
English as a Secondary Language;Reading/Writing/Language;Science
Inglewood; *Tami Cantilina and Jessica Meschino*

Inglewood students will be able to have an up close and personal look at various animals, their habitats, and environmental adaptations because of this North Penn Educational Foundation grant. 40 ESL students throughout grades 1-6 will participate in the Creature Features field trip to The Elmwood Park Zoo. This learning opportunity will provides experiences to enhance their vocabulary and comprehension which they can apply to text. Every student benefitted from making real-life connections to the topics they have been studying in the classroom, enrich their vocabulary, and increase their knowledge about wildlife.

**The Terrorist's Son**
History/ Social Studies
North Penn High School; *David Hall*

Thanks to this grant, students at North Penn High School will be able to examine an in-depth case study about someone raised to be a terrorist who instead becomes a peace activist. Through the class set of *The Terrorist's Son* books, and guest speaker Zak Ebrahim, approximately 120 students per year will get to evaluate interpersonal and familial motivations for terrorism and peace.

**School to Prison Pipeline**
History/ Social Studies
North Penn High School; *David Hall*

In order to allow students to meet someone who made destructive decisions and now works to reach at-risk youth, this grant provides the funds to bring in guest speaker Edwin Desamour. Desamour was incarcerated for third degree murder as a teenager but was released from prison in his 20s. He will explain to sociology classes how he chose a new path and how to reach at-risk youth. In the students reflections of Edwin's presentation they will generate higher level thinking.

**Robotics Club**
Business Education/Mathematics/Science/Technology Education
North Penn High School/NMTCC; *Frank Torrente*

The purpose of this grant is to teach students STEM skills and compete in various Robotics competitions. Through the competition opportunities students will learn machining metal, assembling robots, programing, electrical wiring, and applying pneumatics. They also learn to purchase materials from industry suppliers and use sponsor funds to pay cost and shipping. The 40-60 students per year that will benefit from this project, will also be mentored by local engineers and parents.

**Going Vertical with Gardening**
Science
North Penn High School; *Daniel Kruger*

North Penn High Schools botany and horticulture program has been re-imagined and redesigned over the last 5 years.This grant is meant to provide the equipment necessary for the maintenance and advancement of the botany and horticulture course through a hydroponic vertical garden. All students in the Botany course which is about 200-300 students per year and all participants in the Marine and Botanical Society which is about 70 members will be able to benefit from this project. The botany students will be able to witness first hand with the curriculum they are learning and learn more about vertical gardening. The Marine and Botanical Society members will be able to help maintain the system and see how sustainable agriculture can work. With this money the students were provided with a water pump, PVC piping and fitting, a large tub for water reservoir, and hydroponic Nutrient Solution.

**Active Seating**
Health and Physical Education;Mathematics
North Wales; *Jennifer Shotwell and Derek Fickert*

Throughout a day, students are exposed to curriculum visually and audibly and we would like to provide more opportunities for kinesthetic learners to be able to learn in an environment that best suites them. An active learning environment would allow students to move more freely throughout the classroom and it would allow them to utilize equipment/seating options that meets their kinesthetic needs during different periods throughout the day. This grant will fund the purchase of 7 learniture learning stools, and 10 Adirmed digital foldable pedal exercisers. These chairs will create an environment that is more conducive to meeting the needs of different kinds of learners.

**Movement in the classroom**
Special Education/Gifted Education/Behavior/self-regulation
Walton Farm; *Leigh Ann Staudenmeier*

Many students need to move and some really struggle to sit in a stationary seat even with a sensory pad. These grant fund materials that will provide safer movement in the classroom for kids that rock in their chairs. The wiggle chairs provided for these students will allow the student to move and be less disruptive to those around him or her, therefore creating a better classroom environment.

**A day at the Museum**
Music and Arts;Reading/Writing/Language
Northbridge School; *Marcia Lucas*

A field trip experience reinforces the continuity of instruction and the inter-connections between the Fine Arts and the formal academic disciplines. This field trip, funded by a Foundation grant, gives North Bridge students a fun experience and will create life-long memories and for many of our students this opportunity may be the only time they visit a world-class Art Museum. 30 plus students will get an educational experience that illustrates the cohesiveness of our educational curriculum, they have the opportunity to make judgement and internalize an assessment of their interest and passions.

**Climbing the Walls at Northbridge**
Health/Physical Education
Northbridge School; *Scott Kuhn*

Rock Climbing is a dynamic physical activity that enhances strength, muscle endurance, balance, flexibility and cardiovascular endurance and has the power to captivate a wide range of students.For 25-30 Northbridge students the Foundation has funded a grant that will give them an intrinsic sense of accomplishment and feeling of success. The experience at the Doylestown Rock gym will help stimulate student productivity by giving them the feeling of success and accomplishment. This will in turn translate into an increase in effort in students' school work, and effort during class.

**Oak Park's Kids' "Cook Off" and Nutrition Adventure**
Health and Physical Education;History and Social Studies;Human Services/Consumer Sciences;Mathematics;Reading/Writing/Language
Oak Park; *Donna Grabner*

To introduce students to the world of food preparation, food photography, and nutritional values of food, students will learn to prep healthy food in a fun and imaginative way. This grant funds the purchase of Cooking aprons, Chef hats, Shipping, Gloves, Blender, Display boards, Utensils, Mixing, Measuring cups, Measuring Spoons, paper towels, paper cups, paper plates, Spiral notebooks, and food to make 5 different recipes over a 6 week time period based on student's recipes. At least 20 students at Oak Park will learn to calculate the calories of the foods, along with learning to measure, and create their own recipes. Students will research the nutritional value of their "creations", and use their research of nutrition to create a display at Oak Park Science Night and help to interest families in nutrition education.

THE EDUCATION FOUNDATION OF THE NORTH PENN SCHOOL DISTRICT

**History Comes Alive**
English as a Secondary Language
Penndale; *Donna Kleinert*

In order for new English Language Learners learn about the history of the United States, the Foundation funded a grant to pay for a field trip to learn about history. The students take the Septa Regional Rail to Philadelphia for

a Big Bus tour. The students will benefit from touring everything from the Independence Hall Visitor Center, to the Betsy Ross house, to the Penn's Landing Waterfront. Students read about the American Revolution, famous figures such as Washington, Franklin and the Founding Fathers, but visiting Philadelphia allows them to make the history come alive and provide the opportunity for students to make connections.

**Air Force Strings**
Music/Art
Penndale; *Erica Milbourne*

This experience, with the Foundation funding Air Force members' mileage, lodging, meals and music, is an opportunity for the orchestra students and their director to learn from world class musicians whose job it is to play for official presidential events and occasions. This project provides students an enrichment opportunity to work with world class musicians with an increased teacher to student ratio. Students will be able to learn new skills with more individualized attention, reinforce skills already taught, and focus more on details in the performance of music. Approximately 100 Penndale orchestra members will be impacted immediately; however the orchestra director will continue to affect all future students with what has been learned. Orchestra students in grades seven, eight and nine will learn new skills that will encourage leadership, enrich their orchestral experience and benefit lifelong playing.

**Modeling Math with Document Cameras**
Mathematics
Walton Farm; *Marc Gosselin*

This grant will allow teachers to have the ability to give all students and parents access to current math models to support learning of all math standards. Currently, teachers can only show models on a small scale to a small audience. The project allows 8 classrooms to utilize the document cameras for their instruction, and they will continue to be usable for many years to come. Models can be recorded for future lessons, shared with parents, or used for "Flipped Classroom" activities. As a result, students will show a better understanding of math concepts and increase their access to working math models.

The EDUCATIONAL Foundation OF THE NORTHAMPTON SCHOOL DISTRICT