

# Winter 2012 Grant Winner Summaries

## ***\$1000 Grade Wide Grant***

Title: Improving Student Achievement Through Childrens Literature

Teacher: Julie Connolly & Patti McCausland

School/Students: Elderton Elementary/100 5th & 6th Grade Students

Novels will be purchased to promote reading and language skills such as comprehension, vocabulary, fluency, writing process, listening and speaking. The variety of books will help support and implement literature circles, on-line book club, summer recommended readings, written and oral responses, and literacy projects.

Title: Technology in the Universal Design for Learning

Teacher: Sheri Saurer

School/Students: Kittanning Jr. High School/7th and 8th Grade Students

Shannock Valley Elementary School/K-6th Grade Students

350 Students Total

This concept provides a blueprint for creating instructional goals, methods, and materials that are based on students' individual needs. The project will take apply using an iPad for use in Special Education classrooms. Goals include promoting inclusionary practices, support the Response to Intervention framework, and to use a research based method to identify appropriate educational applications.

West Shamokin High School Safe Driver Awareness Day

Teacher: Dave Powers

School/Students: West Shamokin High School/250 10th-12th Grade Students

This money will help bring the PA DUI Safety Bug to WSHS which has been engineered to demonstrate the loss of control a person would experience if driving while under the influence. A trained mentor sits in the passenger seat and using setting within the car that will effect braking and steering while a teen driver is actually driving the car. The experience will show teens what is like to drive a motor vehicle while under the influence.

***\$5000 District Wide Grant***

Title: Global Classroom iPad/iPad Mini Technology Project

Teacher: Randy Cloak

School/Students: District Wide/20 - 40 Students Annually

These will be put into use beginning in the summer of 2013 and be used each year through at least 2017 during summer Independent Study Courses titled The Global Classroom. Students will use these devices while on their trips to various countries. Six countries will be toured in 2013 throughout Europe. These devices will help aid in many facets of the program including a required reading about the area they are about to tour, keep a continuous journal of daily activities while on the tour, and aid in the submission of a multimedia presentation of the lesson learned while on their tours. Photo's, Video, interviews with locals, and other cultural experiences may be included. There are also apps that will come in handy while on their various tours such as ones for translations, directions to local attractions, and a GPS app that can inform students of nearby historic sites.

***Projects Funded through EITC Monies  
(Educational Improvement Tax Credit Program)***

***\$500 Classroom Grant***

Title: Plant Adaptations of Tropical, Temperate, and Deciduous Biomes

Teacher: Karen Risinger

School/Students: West Shamokin High School/7th-9th Grade Environmental Science & Gifted Students

The overall goal is to integrate higher level scientific thinking skills with STEM applications while exploring plant adaptations and how they affect our environment. The following will be addressed; explain species diversity, a species effects on the ecosystem, explain a plants structure, function, and behavior and how it affects their ability to survive, describe an organisms adaptations for survival, and compare adaptations among species.

***\$1000 Grade Wide Grant***

Title: 3-2-1 Blast Off! The Future of Space Exploration

Teacher: Vicky Orr

School/Students: Ford City High School/150 9th-12th Grade Physical Science and Astronomy Students

K'NEX and the National AeroSpace Training and Research Center have formed a partnership to develop a comprehensive, aeronautics-based physical science set called Energy, Motion, and Aeronautics. This construction set teaches problem solving, mathematical analysis and engineering design skills. Students will have the chance to build and test original prototypes through data collection and analysis, then modify those designs to improve efficiency. The goal is to bring these sets into the classroom which will help cover Newton's Laws of Motion, mechanical systems, projectile motion and more. In the Astronomy classrooms these sets will be used to challenge students to design and build vehicles that can navigate particular terrains or orbit a moon, planet, or asteroid and safely drop a payload.

***\$2000 School Wide Grant***

Title: Robot Day

Teacher: Beth McCrea

School/Students: Dayton Elementary School/120 3rd-5th Grade Students

The vision is to have these grades work alongside the CADD/Pre-Engineering students from Lenape Tech in building a pop can robot for a day in May of 2013. This day will also include robotic stations for the elementary students to manipulate robots guided by the CADD students. The stations will include remotely manipulating a robotic arm to gather candy and remotely driving Vbots through a maze.

***\$5000 District Wide Grant***

Title: Engineering and Design with STEM Robotics

Teacher: John Morda, Patrick Mulroy, Shauna Braun-Zukowski

School/Students: 650 Students District Wide

This will help supplement the continued growth of the STEM Robotics program across the business and technology education curriculums. Students will apply the programming skills learned in business classes to facilitate the fundamentals of more advanced Robotic machines. Their added instruction will include the fundamentals of electricity, electronics, and their practical application to STEM Robotics design and engineering. Students will also enhance their knowledge learned in the business curriculum of STEM Robotics to learn the underlying principles and theory of operation of electronic energy devices and relate those principles to the operation of industrial, household, and robotic equipment.

Student will design and build robots using Lego NXT and TETRIX kits as well as using AutoDesk Design and Engineering software to develop 3D models of robots. Student will also create and make robot pieces to build more advanced Robot models that can be used in competitions against other school districts in the state. These creations will be a mechanical or virtual intelligent agent that can perform tasks automatically or with guidance, typically by remote control.

## Fall 2012 Grant Winner Summaries

\$2000 School Wide Grant

Title: World Percussion

Teacher: JoEllen Stockdale

School/Students: Dayton Elementary/ 113 4th-6th Grade Students

Children are born with an innate ability to produce rhythm. This becomes evident at an early age. The financing for this grant will allow for the development of a drum circle, which can be used to develop skills, auditory acuity and the creativity of the children. A drum circle is "a group of people working together to create in-the-moment music using drums and other percussive instruments." Students will actively participate weekly in multicultural drumming and singing activities. The goal is to teach African and Latin culture, bring a new level of excitement of the world of music to the general classroom, and build crucial work and community skills through communication and listening, cooperative team work, and respect for others.

### ***Projects Funded through EITC Monies (Educational Improvement Tax Credit Program)***

\$500 Classroom Grant

Title: Science Buddies

Teacher: Courtney Gould

School/Students: Dayton Elementary/50 4th Grade Science Students & Their Families

This project is based on the book, *Science Buddies*, which contains several different simple, take home science activities that should be completed with a parent or other adult at home. Students will be given an experiment sheet, materials, and a disposable camera. They will be expected to complete the assignment in a week's time and take a picture of them completing the project with their "buddy". The different activities include standards-based, hands on activities that will show the students how science is part of our everyday lives. Activities will be

related to the current science topic in the regular curriculum. There will be one activity per month for a total of eight. Each experiment will be followed by a short written reflection. In May a culminating activity will take place that includes developing photographs, which will be used to create a scrapbook which will also include lab reports and their written reflections. Goals include promoting parent involvement, making students aware that science is part of their everyday lives, and extending the learning beyond the classroom.

\$1000 Grade/Department Wide Grant

Title: Snap Circuits

Teacher: Dawn Zellefrow

School/Students: Lenape Elementary/60+ 4th Grade Students

Each year in the science curriculum issues such as dead batteries, bad wires, and burnt out light bulbs create issues. Snap Circuits is a 30 piece kit that can create over 100 projects, and helps solve some of these issues. The goal is to provide a kit for every student. Using these kits they will create series and parallel circuits, sound activated switches, flying saucers, alarms, and many other projects. A huge benefit will be the hands-on learning that the students will experience, which will complement the lessons in their books.

\$2000 School Wide Grant - Awarded additional \$4000 Through EITC Monies

Title: WSHS TV Studio

Teacher: Karen Coulter

School/Students: West Shamokin High School/Effects Entire Building, Supplements TV Production and Morning Announcements

With the WSHS morning announcements being confined to tight quarters, and space becoming an issue, WSHS secured a new room to house the morning announcements and their TV Production program. The issue was that there was not proper equipment for the room. The funding was intended to help purchase items to complete the studio build, but additional monies were awarded to fully fund the main piece of equipment to run the studio. The new studio will be outfitted with a video switcher and two camera setup. Goals include using the studio to supplement the TV Production classes and help create bigger, better projects for school and for video competitions, produce better, higher quality morning announcements,

help spawn more excitement and knowledge about the TV Production program, give students more hands-on working experience with high end video equipment, and hopefully help spawn a class with the younger students as well.