

2016-2017 School Year - Innovative Grant Winners

Full Rollin' with STEM! ~ Sponsored in full by Western Precision Products, Inc.

Hazelbrook Middle School – Rhiannon Boettcher.

A new Ed TECH class will be offered that will use Sphero Robots to teach STEM skills like logic, coding, engineering, critical thinking, and collaboration. Students will be able to program their robots to do various tasks, and then can instantly see whether they wrote the program correctly. By allowing students from all backgrounds to experience success with computer programming through Sphero Robots, their ideas of a future path will be broadened and they will believe that they can become successful as STEM professionals.

Girl Power After School Activity ~ Sponsored in full by Wytek Controls, Inc.

Fowler Middle School - Jo Barendse.

Research shows that STEM classes and careers are lacking in female participation. In hopes to interest more girls into STEM, a sewable circuits class will be offered to students inspiring them to use their own creativity to build light-up sewable art. Through the design process students will create electric art that will be new and exciting, while at the same time it will teach that science, engineering, and math concepts can be applied to almost any project a student might create. This after school activity is innovative in the way it combines STEM principals, art, design, and creativity to make light up projects made with fabric, felt, and circuitry systems.

Teatro Milagro Performance to THS & TuHS ~ Sponsored in full by Ron Spires & Kim DeMarchi

Tigard High School - Alexis Buschert.

Funding to bring Teatro Milagro to Tigard & Tualatin High School to perform a bilingual play during school for students in Spanish clubs and classes, and students in ELD classes. Teatro Milagro is a local theater group that performs bilingual plays and this year they are traveling to high schools to perform for students. This would be an important linguistic and cultural experience for students studying Spanish as well as students who come from Spanish speaking cultures. This play will also provide a new and valuable opportunity to celebrate and affirm the culture and language of all native Spanish-speaking students in our district high schools.

Learning Spanish through Interactive Technology ~ Sponsored in full by Wael & Becky Chamseddine

Fowler Middle School – Aaron Bech.

The purchase of a software package that will allow for the creation of interactive videos, games, and slideshow presentations to teach Spanish to students. Through the interactive use of technology, students will be more engaged to learn and absorb the Spanish language. Content of the videos and slideshows will be created by the teaching staff. The teaching content will be much more interesting & engaging, interactive and appealing to students, and will be relevant to the classroom lesson taught by the teacher. With one to one technology in middle school the hope is to create videos and games that can be used to teach Spanish to kids at this school, and then can be shared with other schools allowing so many students to benefit.

Understanding Anatomy through Clay Modeling ~ Partial Sponsors: Julie & Matt Popma

Tualatin High School – Heidi Gorka.

The purchase of 10 manikins so students will benefit from the hands-on nature of sculpturing body parts using clay modeling, and then placing the body parts on a manikin. This will allow for a better understanding of the function of anatomy. IB students will be putting on muscles, adding organs to the cavities, sculpting the brain parts, placing arteries, veins and so much more. By creating and placing body parts on the manikins, students will benefit from innovative hands on learning. This program has been piloted with great success, and these manikins can be used for years to come to educate students in anatomy in a new and engaging interactive way.

Project R2-D2: Integrating Sphero Robots in LA/SS

Fowler Middle School – Jill Flores.

Using simple Sphero Robots, this teacher plans to create interactive and engaging language arts and social studies lessons. This project seeks to ignite a students' curiosity and excitement when studying LA/SS content material. The robots will be integrated into the lessons plan, using technology to enhance the students understanding of literature and history, while simultaneously practicing collaboration and problem solving skills with other students. Some examples on how the robots could be used are creating a pivotal scene from a novel, novel study of characterization, creating an early human migration maze, simulating problems early farmers faced in Mesopotamia (getting water to fields), etc. The hope is to engage students in LA/SS using innovative technology that is fun, challenging, and that fosters creativity.

Wibble, Wobble, Engage and Learn!

Tualatin Elementary - Janell Cooke.

Regardless of the number of brain breaks that can be incorporated into an elementary student's day, the harsh reality is that kids are required to sit for extended periods of time. This teacher wants to create a classroom where movement is encouraged and students are provided an innovative tool to foster such movement. The purchase of ½ a classroom set of Hokki stools will promote active sitting all day long. The stools provide a natural way to support a child's mind-to-body connection. When kids are given the go-ahead for constant movement throughout the day, their brains are free to focus on learning. The stools have been shown to improve on-task behaviors and reduce classroom management issues even with the most challenging of students. By allowing kids movement on the stools while learning, those that need it the most can concentrate more on learning and absorbing, and less on their need to control movement.

Gizmos

Mary Woodward Elementary – Jen Cannon.

The purchase of an 18-month license to Gizmos by ExploreLearning. Gizmos is the world's largest online library of interactive math and science simulations for students grade 3-12. It is research based and allows students to develop a deeper understanding of challenging concepts through inquiry and exploration. For science, this includes dozens of simulations in physical, biological, earth and space science, technology and engineering, and integrated science skills. For example, Growing Gizmo allows students to "plant" any of five different seeds, vary the amount of light, water, and fertilizer, and determine the optimal growing conditions. For math, Gizmos simulations range from numbers and operations, algebra, geometry, measurement, and data analysis. Gizmos provides online simulations that demonstrate various skills and phenomena that students would normally have a hard time understanding within a traditional classroom setting.

Coding Robots for Everyone

Bridgeport Elementary – Audra Gans.

To provide the opportunity to learn computer science skills for individuals from all backgrounds. As an example, currently in Oregon, only 13% of computer science graduates are females. To achieve this, Wonder Workshop Dash and Dot robots will be purchased to help children learn how computers work and why coding is important. Dash and Dot by Wonder Workshop is a pair of coding robots that are friendly, intriguing, and imaginative, while at the same time they are made for anyone to use. Once the program is started, the students will participate in competitions like the Annual Wonder League Robotic competition. Developing basic computational thinking skills encourages a way of thinking that can help children in every area of life. The hope is that our most underserved students will have the opportunity to learn computer science skills, and to make the playing field more equitable for all.

Story Corps Recording Studio

Twality Middle School – Julie Rodriguez & Taylor Siron.

Using the Story Corps format, teachers and administrators in TTSD can visit the Twality recording studio and use state of the art equipment to document the voices of students, families, and the community members. Students will learn to record using microphones, filters, and garage band, and then edit their recordings to come up with the most impactful story. The goal for students is to teach them the basics of sound recording and editing where they will collect stories from the community and edit them to be published on a running blog. This studio will be open to all other schools in TTSD, and will be used as an integral part of building community and will continue to capture and share stories for year to come.