



Flagship

A Report to the Community

Winter 2015 www.shorelineschools.org

Shorewood choir, orchestra head to Carnegie

How do you get to Carnegie Hall? Practice, practice, practice! That's just what 170 Shorewood High School choral and orchestral music students are doing as they prepare to perform in America's most revered concert hall in April.

"It's a great tribute to the quality of the music programs in our school and in our District as a whole that both the Shorewood choir and orchestra have been invited to perform at Carnegie Hall in the same year," said Dan Wing, orchestra teacher at Shorewood and Einstein Middle School.

The combined Shorewood orchestras—116 students strong—will perform in concert at Carnegie Hall in New York City on Sunday, April 5 along with other high school performing groups.

This will be the fourth time that the Shorewood orchestra has been invited to Carnegie. For this year's Shorewood students, it will be an unforgettable experience.

"The first time they enter the auditorium and look around, their eyes will be wide and their mouths open," said Wing. "Carnegie is filled with such history, you can't help but be in awe."

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Teacher Dan Wing leads the Shorewood Chamber Ensemble as they rehearse for Carnegie Hall.



The Shorewood Aeolian Choir sings under the direction of teacher John Hendrix.

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Inside
Flagship

Special Pull-Out Section
on STEM courses in
Shoreline Schools

Superintendent's Message:

STEM courses build skills for a lifetime

Dear Shoreline Schools Community:

We have passed the midpoint of the 2014-2015 school year. Our elementary students have celebrated the milestone of 100 days in school and our secondary students have finished the first semester.

I too have completed the initial phase of my first year in the District and have moved from data gathering in my entry plan to analysis of the data I have collected. It is a reflective time for students and staff as we think about what we have accomplished so far and what goals we have for the rest of the year.



Rebecca Miner

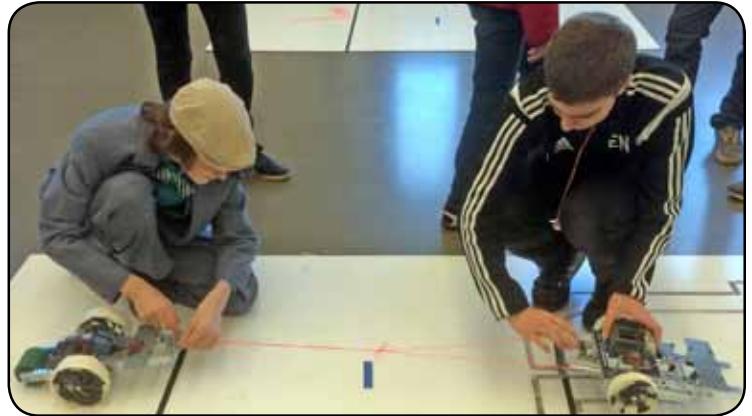
In a similar vein, I reflected on my own experiences in science and mathematics classes as we highlight Science, Technology, Engineering and Math (STEM) in this edition of *Flagship*. I was fortunate to have many wonderful science and math teachers throughout my life. They inspired me to take more science and math than I would have if it had not been for their passion and interest in these subjects.

Although I did not pursue a STEM career, I use the practices and skills gained in those classes on a daily basis in my work as superintendent. When approaching a problem, I try to think with precision and persevere in working toward solutions, both skills which my math teachers emphasized. My science teachers taught me that using data to draw conclusions was the way to analyze a potential answer to a question.

Throughout the year, I have visited classrooms where students are testing their hypothesis using the scientific method and learning to code and create applications.

I have attended science fairs where entire families are enjoying STEM activities together. Students create robots, observe habitats, conduct experiments, and work together to solve complex questions - not only gaining content knowledge, but also invaluable skills. Some of them, inspired by their families, teachers, opportunities and experiences in school, will choose to pursue STEM careers. Others will choose to travel alternative career paths.

In either case, the habits of mind and practices that they are learning now will benefit them in a rapidly changing world where knowing how to reason, work as a part of a team and solve



Students test the devices they created in Shorecrest's new robotics class.

problems are necessary for success in all careers.

As spring begins, I hope that many of you will have the opportunity to attend a music performance, sports contest or other activity at one of our schools. All of our school events are online at shoreline.tandemcal.com and sports schedules at wescoathletics.com.

Sincerely,
Rebecca

Growing Great Minds

Take a test drive at Campbell Nelson Nissan Volkswagen, and earn \$100 for our kids! Contact SPSF to get your Golden Ticket to drive.



Help us support the academic and extra-curricular programs that make a difference in our children's education. Please join us for the Spring Event, our breakfast and lunch fundraiser, on Thursday, March 26, 2015. RSVP by March 16
206-393-4107
www.shorelinefoundation.org

Spring Event
March 26, 2015



**Shoreline Public
Schools Foundation**

STEM IN SHORELINE SCHOOLS

New courses popular with students

STEM is a curriculum based on the idea of educating students in four specific areas — science, technology, engineering and mathematics — in an interdisciplinary and applied approach. Rather than teach the four disciplines as separate and discrete subjects, STEM combines them into a cohesive learning curriculum based on real-world applications.

STEM education will help produce the capable and flexible workforce needed to compete in a global marketplace. Right now, Washington has 25,000 unfilled jobs for highly-skilled workers and that number is expected to double by 2017.

This year Shoreline Schools introduced several new STEM courses in middle and high school, including computer science, engineering and robotics. In addition, several co-curricular after-school clubs provide STEM opportunities for students.



Shorewood teacher Nathan Bruno teaches a new, year-long course exploring computer science, including creating virtual reality games.

In this issue of *Flagship*, meet some of the teachers and volunteers helping students to bring STEM to life in Shoreline Schools.

Creating a Virtual World

Inside Nathan Bruno's classroom at Shorewood High School a virtual world emerges in the new, year-long Exploring Computer Science course.

The class, created in partnership with code.org, is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics, rather than focusing the entire course on learning particular software tools or programming.

Through interactive units, students explore the creative nature of computing, how technology can be used as a tool to solve problems, and the

relevance of computer science's impact on society. This is an introductory course designed to prepare students for enrollment in AP (Advanced Placement) computer science, which Bruno also teaches.

Midway through the school year, students in his class were well into creating virtual reality games using the Oculus devices Bruno received with grant funding. Donning the goggle-like devices, the students feel themselves climbing mountains, walking through deserts, and encountering various creatures they have created.

Bruno previously taught Spanish at Shorewood several years ago, but left to pursue his interests in software development. He lives in Shoreline with his young family and is excited about the District's growing STEM programs.



Shorewood students use the Oculus virtual reality devices to create computer-generated games.

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"I'm so pleased with the drive and motivation I'm seeing in my classes," Bruno said. "With the interest they have shown I can see these programs expanding in the future."

Learning to Code

In a classroom at Einstein Middle School, about a dozen students have stayed into the late afternoon for Coding Club.

Alex Petrescu has volunteered at Einstein for three years, working with seventh and eighth graders as they learn basic coding and create simple games.

"I got interested in computer science at the same age as them," said Petrescu, who lives in Shoreline and works as a software engineer for Facebook in downtown Seattle.

He hopes that the skills the students learn in Coding Club will not only give them a head start for the STEM classes they will take at the high school, but also provide a broader life lesson.

"It's not so much about learning computer science or coding as it is about problem solving and being a part of a team," Petrescu said. "Not all of these students are going into STEM fields, but those problem-solving skills will benefit them in whatever career they choose."

Both middle schools also offered Introduction to Engineering and Robotics this year.

Building skyscrapers

The sound of hammers and saws fill the specially designed classroom at Shorecrest that is home to the school's new



Volunteer Alex Petrescu, a software engineer at Facebook, helps Einstein students learn computer science in the afterschool Coding Club.

engineering and robotics courses.

On this day teams of students in teacher Emily Slack's engineering class are carefully assembling scale model, earthquake-resistant skyscrapers.

Their task: to apply aesthetic, technical and engineering design principles to their model, which must be at least 24 inches tall. Once built, the structure is fastened to an earthquake simulator and tested. Their

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Syre kindergarteners and sixth graders team up to learn coding. Hundreds of Shoreline students in all grades participated in the nationwide "Hour of Code" promoted this year by code.org to give everyone a basic coding lesson.

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budget: \$1 million — for example, rubber bands are \$500 each. Each student uses AutoCAD software to draw their skyscraper and keeps a detailed journal of their work.

“This is amazing,” Slack said, gazing around the brightly-lit room. “These kids are so engaged in the process of building. They have been so precise in their work, going through design and creating some really impressive, creative structures.”

For Slack, leading this course completes a circle that began when she majored in engineering in college, then worked in the field before coming to Shorecrest to teach math.

“I could do this all day long. I’ve never had so fun teaching.”

Cascade K-8 gives STEM an A

Cascade K-8 Community School in Shoreline has added the Arts to STEM to make STEAM.

Chosen as a Lighthouse School by the state, Cascade received an \$18,000 grant in 2014 to promote and develop STEM education, and provide technical assistance and advice for other middle schools and high schools that are creating their own STEM environments.

Cascade has served as a mentor to other schools in the state and created a STEM lab at the school.

“The STEAM Program enables our students to gain the skills required to succeed in today’s challenging world,” said Trinh Pham, director of Cascade K-8. “Our program is designed to help students develop the ability



Shorecrest students assemble pieces of their skyscraper, which would be tested to see how it would withstand a simulated earthquake.

to think critically, solve complex problems, and drive advancements in science, math, engineering, arts and technology through hands-on projects with practical applications.”

At its annual STEAM Fair, Cascade opened its doors for families and the community to explore these fields. There were hands-on workshops in every room. Visitors were able to maneuver robots, create games on the many computers available, build wood carpentry projects, design and build and sail a boat, and race CO₂ dragsters.

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Cascade K-8 Community School students won awards in the recent Technology Student Association competition.

STEM IN SHORELINE SCHOOLS

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“We prepare students for success in the 21st century by facilitating high-level learning. Designing solutions to real problems and testing them creates excitement about learning, particularly in crucial STEM-related fields,” Pham said.

Cascade’s Technology Student Association (TSA) club is the only chapter in the District. In January, they competed at the regional TSA competition, winning two first-place awards. The team will be participating in the upcoming Washington TSA State competition.

There’s no ‘I’ in Team Pronto

It’s supposed to be a non-student day, but try telling that to the 68 members of Team Pronto, the robotics club at Shorewood. Students from Shorewood and Shorecrest fill the auto shop space that is also home to teacher and team adviser Wes Proudlove’s robotics classes.

Team Pronto spent six weeks in January and February building this year’s robot to compete against other high schools in regional events such as the one to be held at Shorewood on March 21 and 22.

“They are so dedicated to making the team successful,” Proudlove said. “They spend literally hundreds of combined hours here bringing the robot to life.”

The 2015 robotics event “Recycle Rush” involves robots working with other teams to build and stack totes that weigh 7.8 pounds with a capacity of 2.3 cubic feet each. The higher the stacks of totes the more points an alliance can score.



Shorewood teacher Wes Proudlove assists Team Pronto members as they begin assembling this year’s robot. Shorewood High School will host a regional robotics competition March 21 and 22.

By stacking the totes, teams will be simulating what goes on in a recycling yard with the separation of recycled materials. Once the totes are stacked, a 60 gallon garbage can will be added to the top of the stack for extra points.

“There’s more and more kids, and particularly girls, joining the team every year,” said Vern Nelsen, a retired Boeing manager who serves as a team mentor. “The wonderful thing about Team Pronto is there is a place and a role for everyone here.”

Team Pronto robotics is now a year-round club with many outreach events hosted and attended by members. Team Pronto has brought its past robots to events at elementary schools, middle schools and Shoreline Community College. For more information, visit teampronto.weebly.com.



Now in its seventh year, Team Pronto members from Shorecrest and Shorewood spend hundreds of hours building, testing and competing with their robot.

15 teachers earn National Board Certifications

Fifteen Shoreline School District teachers have received their certifications from the National Board for Professional Teaching Standards.

They are:

- ▶ Eric Allen, Tizbee Holm, Andy Kidd, Gabe Martinez, Linda Richard, Stephanie Rietman, Emily Slack and Stacia Tellefson, Shorecrest High School.
- ▶ Marty Ballew, Shannon Greenway, Lara Sukol and Brandon Torrey, Shorewood High School.
- ▶ Emily Maschman and Mary Thurber, Einstein Middle School.
- ▶ Grace Waylen, District English Language Learners instructional specialist.

Shoreline now has a total of 81 board-certified teachers working in the District. Numbers released by the National Board for Professional Teaching Standards show that Washington has the most new NBCTs in the United States (946) and is fourth overall in the total number of NBCTs (8,285).

The national certification process takes a minimum of 18 months. Teachers must demonstrate in their four-part portfolio a deep understanding and application of the national standards that are in place for their field of teaching. A national panel of peers then assesses the portfolio. Teachers also take a six-part examination in their content area.

Created in 1987, the National Board for Professional Teaching Standards is an independent, nonpartisan and nonprofit organization devoted to advancing the quality of teaching and learning.

District selected for national AP Honor Roll

Shoreline is among a select number of school districts in the U.S. and Canada being honored by the College Board with placement on the 5th Annual AP[®] District Honor Roll. Only 14 districts in Washington state were chosen this year.

Shoreline was recognized for increasing access to Advanced Placement course work for students at Shorecrest and Shorewood High Schools while simultaneously maintaining or increasing the percentage of students earning scores of 3 or higher on AP Exams.

More Shoreline seniors take at least one AP exam in high school than seniors statewide and nationwide, and exceed national levels of AP exam participation and performance.

Since 2011 the District has offered the Preliminary Scholastic Aptitude Test to high school sophomores and others each October. The test helps to identify students for AP coursework and has positively influenced AP



enrollment. The District currently offers 19 AP courses in the high schools.

In 2014, more than 3,800 colleges and universities around the world received AP scores for college credit, advanced placement, and/or consideration in the admission process.

Inclusion on the 5th Annual AP District Honor Roll is based on the examination of three years of AP data from 2012 to 2014.

Shorewood musicians to play Carnegie Hall

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The Shorewood Chamber Ensemble meets each weekday morning before school. These are Wing's most experienced students, and many of them have been looking forward to this trip to New York City since middle school.

"It's the dream of every musician to perform at Carnegie Hall," said senior cellist Jonas Chen. "It's incredible to think that we will be playing on the same stage as Horowitz, Perlman or Yo-Yo Ma."



Chamber ensemble members practice each weekday before school.

The 50-member Shorewood Aeolian Choir, directed by choral teacher John Hendrix, will sing at Carnegie on Saturday, April 25 in the Choirs of America Nationals. They will perform in concert with other choirs from around the country, but will also be featured in a spotlight performance of their own.

Hendrix and the Aeolian Choir last performed at Carnegie in 2009.

"It's a once in a lifetime learning and performing opportunity for our students," he said.

Both schools have scheduled pre-trip concerts for the community, featuring the repertoire they will perform at Carnegie Hall. The Shorewood orchestra will perform at 7:30 p.m. March 30 in the Shorecrest Performing Arts Center. The Shorewood choir will sing at 7:30 p.m. on April 14 in the Shorewood theater.

Public invited to attend Shoreline Math Olympiad March 14

Shoreline Math Olympiad will host its 17th annual competition Saturday, March 14 at Shoreline Community College.

This day-long math competition is open to all students in grades 4 to 8. This year's event is expected to have more than 800 student participants.

Students participate in individual testing, both multiple choice as well as mental math. Then they move on to team competition consisting of teams of four students from the same grade.

Though many of the students prepare for the event by participating in their home school's math club, there is no requirement of prior math club experience to come to Shoreline Math Olympiad.

This event is open to the public, including the entertainment and awards ceremony which begins at 12:15 p.m. in the Shoreline Community College gym.

STEM Festival coming May 9



The Shoreline STEM Festival will be held from 10 a.m. to 2 p.m. on Saturday, May 9 at Shoreline Community College. Students are encouraged to enter a project in the science fair. There will be hands-on science activities and demonstrations and a career expo featuring opportunities in science, technology, engineering, and math. Festival organizers are also seeking exhibitors and mentors for students. For more information and registration, visit shorelinesciencefair.org.

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Dick Potter

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Rebecca Miner

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Shoreline Schools Calendar

For complete listings of District events, subscribe to the online Tandem calendar at shoreline.tandemcal.com

MARCH 2015

- 14 • Shoreline Math Olympiad at Shoreline Community College, all day
- 21-22 • Regional Robotics competition at Shorewood HS, all day
- 23 • School Board meeting, 7 p.m., Shoreline Center
- 26 • Shoreline Public Schools Foundation Spring Event breakfast and luncheon fundraiser; visit shorelinefoundation.org to register

APRIL 2015

- 2-4, 9-11 • Shorewood spring play "Arsenic and Old Lace," 7:30 p.m.
- 6 • School Board meeting, 7 p.m., Shoreline Center
- 13-17 • Shoreline PTA Appreciation Week
- 20-24 • No School, Spring Break
- 30, May 1-3 and 7-10 • Shorecrest musical "Mary Poppins," evenings at 7:30 p.m., Sundays at 2 p.m.

MAY 2015

- 9 • Shoreline STEM Festival, 10 a.m., Shoreline Community College
- 11-15 • Teacher Appreciation Week
- 11 • School Board meeting, 7 p.m., Shoreline Center
- 25 • No School, Memorial Day