News release

January 16, 2018

Boeing partnerships help learning take wing

$90,000 grant for preschool math AND dozens of engineers in high school classrooms

1. An early lift off for math

The goal – on the first day of kindergarten in 2020, nine out of 10 of those five year olds will be ready for kindergarten. Students who are ready for that first day of kindergarten are much more likely to be successful that year and each which follows – and to graduate from high school.

According to economist James Heckman, investments in school-readiness from birth through age five have powerful societal and economic benefits.

That 90 percent readiness goal and the long-term benefits of early readiness are behind The Boeing Company and Everett Public Schools Foundation $90,000, multi-year grant to the district's early learning program.

Kindergarten readiness is analyzed each year according to WA Kids benchmarks. "In addition to increasing how many of our youngest students come to school ready to learn, we will follow the academic success of each cohort of students to see how well they do in math in third, eighth and eleventh grade," explained Dr. Cynthia Jones, director of categorical programs.

> *"A critical time to shape productivity is from birth to age five, when the brain develops rapidly to build the foundation of cognitive and character skills necessary for success in school, health, career and life. Early childhood education fosters cognitive skills along with attentiveness, motivation, self-control and sociability – the character skills that turn knowledge into know-how and people into productive citizens."*
> James Heckman

The grant funds are already kickstarting math readiness work – including professional teacher training (preschool and public school teachers) and parent involvement. Ultimately teachers from preschool through grade three will use similar strategies and common materials when teaching math – and they will have online access to videos of exemplar teachers in action. Parents and teachers will have web access to a vast array of activities and materials to ignite student excitement about math – and ultimately their math success in school.

2. Buoying interest in engineering careers; boosting appreciation for engineering craft

Search Google for "Engineering Week 2018." You get 11,300,000 results. Use Bing, and the results number 116,000,000. Either way, Engineering Week is a big deal across the nation – even internationally. Who knew there were so many areas in which engineering skills are key and how many career possibilities open if one wants to study engineering?

Boeing engineers understand the possibilities such study can open. Next month, between Feb. 12 and Feb. 16 dozens of them will share the wonders of engineering with upwards of 1,000 students in more than 50 middle and high school classrooms across the district.

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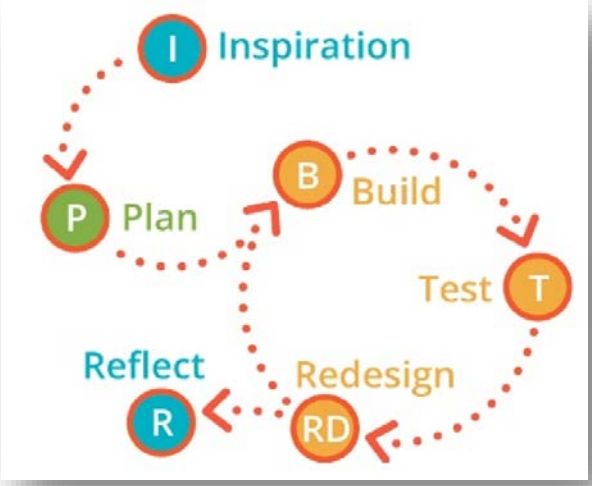
Christine Trias coordinates the engineering visits with the district's science, technology, engineering and math (STEM) department. She explains the significance of the engineers' visits and why The Boeing Company supports the program in districts in the region. "Our community outreach is designed to give students a better understanding of engineering and showcase just how important math and science skills are in engineering. "Each year students learn about the numerous and increasingly diverse engineering pathways possible for them. Those include, aerospace engineering, chemical, civil, computer, electrical, environmental, industrial, materials, mechanical. Those are some of the possibilities today. Who knows what the future holds when these students are part of this country's incredibly productive work force."



In the classroom visits students interact with Boeing engineers to tackle a design challenge using the "Engineering Design Process." In this hands-on activity, students experience and internalize the cycle of plan, build, test, re-design and reflect.

James P. Browne is an annual Engineering Week volunteer. He says, "Students test their designs, make changes if they want to improve performance, and they test again."

Browne and the other outreach engineers are still designing the 2018 challenge they will bring to students. One past year's challenge was to build a plane powered by stored energy using a rubber band, a balloon, or a string. Another challenged students to build a helicopter with a penny as a payload and to fly it at least 10 feet for three seconds. Another year students deployed a six-inch satellite which could unfurl its own solar wings and fit inside a nine-inch diameter tube.

"We don't know what creative task the engineers will bring to classes this year," says Riley Black. We do know there is lots of anticipation and excitement about those visits."

Over two years, starting in 2013, The Boeing Company, city of Everett, Frontier Communications, Providence Health and Services and Everett Public Schools Foundation pooled $180,000 to launch the district's STEM (science, technology, engineering and math) program. Since then, every student at every grade is experiencing hands-on STEM lessons. In November 2016, through the Foundation, Boeing again awarded $95,000 over a two year period to support district work to expand career-connected learning.

"Boeing is a key partner in our work," notes Dr. Dana Riley Black, director of STEM and career and technical education. From early learning through high school, the company not only partners financially with us to enrich key educational programs, they release engineers to work hands-on with students to inspire imagination, creativity and career aspirations."

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