

## News release January 9, 2018

## Billy Goat's Gruff and STEM? Fee-fi-fo-fum, yes, Jack, it is so.

Preschool and kindergarten teachers learn ways to build science, technology, engineering and math skills among even the youngest students.

(Call 425-385-4068 or email <u>EarlyLearning@everettsd.org</u> to register for upcoming sessions.)

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.

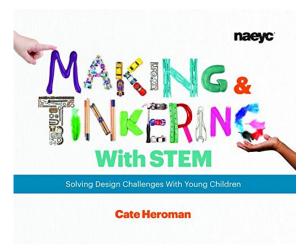
"Although some school districts limit STEM learning to magnet schools or specific grade levels, we opted to make STEM access open to all rather than limit such vital learning experiences to some schools or some grade levels," explained Superintendent Gary Cohn. "Achieving that requires deep and wide professional training and collaboration among teachers at all schools and every grade level."

Such learning for teachers of the community's youngest students took place in December, and two more are scheduled for Feb. 8 and April 24. (Sessions are open to regional



In December, kindergarten and preschool teachers tackled an activity they will replicate with their students -- creating the tallest structure they can, using a box of blocks.

kindergarten and preschool teachers at 425-385-4068 or <a href="mailto:EarlyLearning@everettsd.org">EarlyLearning@everettsd.org</a>. The first 50 to arrive will get a copy of the book <a href="mailto:Making and Tinkering with STEM">Making and Tinkering with STEM</a>, by Cate Heroman.)



Called Making and Tinkering with STEM (based upon the book by that name), the sessions include regional preschool and kindergarten teachers learning together. The sessions explore ways public school teachers and public and community preschool teachers can harness students' natural curiosity. Students use the same techniques professional engineers use to build things and solve problems – to tinker, make and engineer.

How does this work? One activity in the book challenges students to solve the problems faced by characters in children's stories. Take the story "Three Billy Goat's Gruff," for example. What might children do to help the goats get past the

troll to the green grass on the other side of the bridge? They might design a new bridge or create masks to divert the troll's attention. Or, they might ... that's the point – the students tinker, make and engineer their way to a viable solution.

Through guided processes the teachers practice, children learn about tinkering, making (and making mistakes) and engineering to solve problems. Teachers learn to guide even the youngest students' exploration of STEM (science, technology, engineering and math) and practice planning, focusing attention, thinking flexibly, persisting and organizing information.

"Using fairy tales, other children's stories and real life situations, it is possible to build such skills and habits of thinking into the daily activities of even the youngest students. This is a strong academic and social base for the ways they will learn in school later and be expected to operate in the world as adults," notes Dr. Chad Golden, director of Early Learning.

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## For more information:

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