

# How I overcame my students' question: *Where am I ever going to use this?*

BY DYLAN MCCANN, TWALITY MIDDLE SCHOOL

I've been teaching grades 4-6 for 4 years and this is probably the most common question my students ask. They want to know why it is important to learn mathematics or science. Students who find these subjects difficult or irrelevant tend to give up easily and pay less attention in class. A lot of my students of color and girls don't imagine they could work in high-paying, high-skill STEM jobs that require knowledge of math and science.

I teach at Twality Middle School which is part of the Tigard-Tualatin School District. As a teacher, I feel it is critical to give students fresh perspectives into life's opportunities for college and career. I also need to keep them engaged in class and motivated to learn even when the topic seems abstract or highly complex. Thankfully, I found a technology resource called Oregon Connections to overcome the all too common question, "Where am I ever going to use this?" My hope is that other teachers in our district will sign on to use Oregon Connections so that all of the students in our community will have similar opportunities as my students.

The technology is built on a national platform called Nepris and its purpose is to bring relevance to classroom teaching through live, virtual chats between students and adults in the working world. Oregon Connections is a state-funded program which has purchased Nepris licenses for classes like mine. Oregon Connections also arranges for in-person visits with local professionals who live close enough to come to classrooms. My students have met with bakers, programmers, military defense engineers, naval architects, and pilots. Some of those adults have come to my classroom and shared their personal journeys and interests. Some of these adults have met with my class virtually through Nepris.

Nepris was started by a two engineers, Sabari Raja and Binu Thayamkery, who recognized the difficulty teachers had in bringing industry professionals to the classroom. The founders wanted to make it easier for industry experts to connect with teachers so they created this online platform where teachers and professionals could connect and schedule online chats. Oregon Connections uses the Nepris technology

and also makes it possible to have in-person connections with local careers and professionals.

The idea is brilliant and I've seen first-hand the magic of how these interactions work. One reason I feel it is such a great program comes from my goal to inspire young women and students of color to view high-paying, high-skill technology jobs in their future. There are lots of exciting careers in STEM (science, technology, engineering and math) but students who don't have role models in their community or are lacking in self-confidence think that STEM careers are only the domain of the well-off and college educated, in other words, not them. That just isn't true. The path to the job of their dreams is just as varied as the options of STEM jobs before them. But, a student has been excited about the potential in order to break down their preconceived notions about what they can achieve in their own lives. They feel disconnected from that future world.

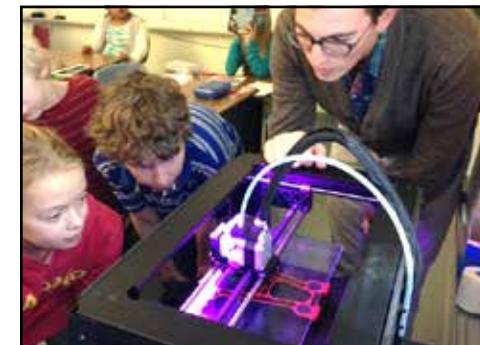
Oregon Connections, with Nepris engine behind it, is one way we can break down those perceptions. Last year, I used Oregon Connections to help in my lessons about thermal energy transference. I needed to impress my students with where this fit in their world in order to keep them motivated for what initially seemed like a really complex lesson. My goal was to help them see themselves doing this kind of high-skill work, especially my female students and students of color. Oregon Connections helped me by locating a young African American woman to talk with my students about what it is like to design, build, and test rockets. They really got excited when she got to the part about blowing things up! She spoke about her journey as an African American woman through school and she showed my students that with perseverance and a great attitude, they can achieve anything.

This was an invaluable experience. I could try to tell them this in a dozen ways and it would never have made the same impact as this one young woman's presence in the classroom. Now with Oregon Connections in our schools, we have unlimited opportunities to find professionals locally or from anywhere in the world who can talk with our students and open their eyes to great possibilities.



Teacher, Dylan McCann, guides his students at Twality Middle School in Tigard, Oregon through a STEM lesson and brings in industry experts to her class virtually using Nepris or for in-class visits using Oregon Connections.

Giving my students the opportunity to connect with real people using what we are learning is invaluable to their core education. Without the real-world exposure, classroom teaching loses context. I have seen my students remember concepts and the people, and also maintain excitement for careers they never thought possible, years after their visit with a professional. The impact is that significant. Bringing professionals into my classroom will continue to be a part of my teaching strategy for years to come and I am thankful that Oregon Connections is available to have expanded the potential beyond our immediate community of adults.



When Dylan McCann (pictured) taught at Molalla Elementary School in Oregon, his fourth and fifth grade students learned about biomimicry and created inventions with a 3D printer. He does similar activities now that he teaches at Twality Middle School in Tigard, Oregon.

**Dylan McCann** has been teaching for 11 years in elementary and middle school until he found his permanent position teaching sixth grade math and science in Tigard at Twality Middle School. He has always been an advocate for the love of math, environmental education, and STEM concepts. He is passionate about building relationships with students, parents, and community to build support structures for his students to help guide them in their educational path.



## Note:

Oregon Connections is supported by 11 regional STEM hubs that connect schools with partners and resources schools in their area. The South Metro-Salem STEM Partnership serves schools south of Portland including Tigard-Tualatin School District and the surrounding region. Schools in our region can obtain free licenses for Oregon Connections by contacting the director, Melissa Dubois at [Melissa.Dubois@oit.edu](mailto:Melissa.Dubois@oit.edu).