

Learning revised: West Seattle's STEM School presents a plan for the future

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By Ty Swenson



K-5 STEM parents take a look at the school's five-year strategic plan during a forum on April 23.

This school year has been just as much about learning for the parents and staff of West Seattle's K-5 STEM School as it has been for the kids.

As summer approaches the new school on Delridge Way S.W., which focuses on giving kindergarten through 5th grade students a solid foundation in science, technology, engineering and math (STEM), will have wrapped up their first year in existence, and the collaborative community of teachers, parents and kids gathered on April 23 to discuss what they've accomplished so far, and where to go from here in further refining a system that is completely new for Seattle Public Schools.

That vision was presented on the 23rd, as the K-5 STEM Strategic Planning Committee unveiled their [5-year strategic plan](#) to a cafeteria full of parents, and then opened up the floor for questions and feedback. As a first note, the staff has taken to calling their school West Seattle STEM (WSS for short), and this report will follow suit.

The plan, which is available for viewing at the [WSS PTA website](#), structures a vision from 2013 to 2018 for each of the four STEM disciplines, with goals of graduating the vast majority of 5th graders into middle school with a high probability of being able to test out of 6th grade subjects into more advanced classes. The ever-present asterisk before delving into specifics was that implementing the plan will require funding, and there is no guarantee funding from SPS will suffice. To that end, WSS hopes the 5-year plan will work as sales material in encouraging tech companies to invest in the school ... and potentially their next generation of star employees.

“We can use this document to demonstrate that we have a vision for the children of this community, and perhaps for all of Seattle schools,” 5th grade WSS teacher Craig Parsley said.

Lily Pierson with WSS’s PTA and Parsley were the main presenters on the evening and took to nipping a baseline concern about STEM education at the start: that being whether other disciplines (art, writing, reading, history, physical education, music, etc.) suffer as a result of too much emphasis on the STEM subjects.

Parsley said WSS employs a heavily project-based teaching model that includes the process of “curriculum integration,” which is key to ensuring WSS students receive a well-rounded education. While graduates heading into middle school will likely be ready for more advanced science and math, he believes they will be at least prepared for grade-level continuation in other subjects.

“STEM is the platform from which we integrate everything else we do, or, everything else we do that’s not STEM can have a STEM component to it, so it works both ways,” Parsley explained. “Art is not art for art’s sake. Art can also be technical drawing ... and part of a design process. Social studies can be more than just a study of history; it can be a study of the history of technology ...”

Providing a specific example, he said students might learn about the industrial revolution as part of social studies, but STEM can be weaved into that lesson by teaching the kids how a steam engine works.

In addition, WSS staff is using “curriculum articulation” to move their students from kindergarten to 5th grade. Their plan explains it as “the logical progression of learning objectives from grade level to grade level, from course to course, within each curricula area. For a student to successfully progress from Grade 3 to Grade 4, he or she will experience all the necessary prerequisites in 3rd Grade to be successful in 4th Grade without the need for remediation.”

Tweaking the SPS standard

Pierson and Parsley said a major theme of WSS’s long-term plan is using some of Seattle Public Schools baseline teaching kits (but not all), and using them as a supplemental tool instead of the end-all-be-all of how curriculum will be taught.

Science and Technology

For example, WSS will use SPS’s required National Science Foundation science kits to teach science and technology, but they will expand upon the program with computer-based software learning, robotics, and simple machine building and design.

Engineering

For engineering, WSS plans to use the Engineering is Elementary toolkit, but expand upon it to create a customized curriculum “to integrate fundamental engineering experiences across all grade levels over five years, with full implementation of this goal in the fifth year of the strategic plan.”

Math

WSS is going with the Singapore Math Program instead of the Common Core Standards used across SPS. Parsley said Singapore Math (known to have a strong emphasis on problem solving and model drawing) is pretty much in-line with Core Standards until 3rd grade, where it “accelerates students beyond those standards.” He said students with five years of Singapore Math under their belt will likely test out of 6th grade math into 7th, and possibly 8th grade level programs once they enter middle school. Down the road, that can mean advanced placement classes as students prepare to graduate from high school, giving them a head start on a college education.

Literacy

WSS will employ SPS’s Readers and Writers Workshop and Reading Wonders programs, but will

expand upon those tools to create a technical writing element more in-line with STEM subjects. For any children that are falling behind their peers in literacy proficiency, they plan to use the Read Naturally program (or something similar) to get them caught up.

The parents' turn

While the creation of WSS has been collaborative from the start, bringing educators and parents together in the six months prior to opening for the school year, parents were given a chance during the forum to ask questions after watching their children go through the first year. They also placed sticky notes on a large printout of the school's five year plan to add their suggestions.

Some questioned what happens with their children's STEM education once they leave WSS and head off to middle schools where no such emphasis exists. As mentioned earlier, in math kids will be able to test up to more advanced grade levels, but in science, technology and engineering there may not be an advanced path available and kids may find themselves learning material they have already mastered. WSS staff recommended parents speak out to the Seattle School Board directly on the need for STEM tracks throughout primary and secondary education. WSS Principal Shannon McKinney said she is in discussion with West Seattle's middle school principals now on how they can prepare their curriculum to better fit the expertise STEM-trained students will arrive with. To that end, the idea was also thrown around that WSS could become a K-8th grade school at some point down the line.

When asked if parent's should attempt to continue rigorous STEM training in the summer, Parsley recommended letting the children take their well-deserved break ("Don't burn them out, they need to rest their minds"), but encouraged fun activities (like building a bridge out of toothpicks) to keep concepts alive.

Another parent asked what WSS staff is doing to ensure the school has a diverse student and staff population. Parsley said diversity is a key component of the five-year plan, which will include hiring a multicultural staff and reaching out to communities of color and immigrant communities, including dissemination of WSS brochures printed in multiple languages. Pierson said STEM jobs are currently under-represented by women and people of color (she is both), and hopes WSS will play a role in bucking that trend.

As summer approaches and West Seattle STEM looks back on a first year in a long road to full potential, there are plenty of unknowns from where funding will come from and where the school will eventually find a permanent home (they are currently at Denny, which SPS uses as a temporary annex). The ultimate goal, however, seems clear to Parsley:

"We want to create a STEM mindset, we want students to understand that they have had a unique experience, and that empowers them to move forward then, when they get to middle school, to take honors math and science courses," and so on until West Seattle STEM's students find themselves with a solid job in a field they love.

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