THE WASHINGTON STATE BOARD OF EDUCATION
Accountability | World-Class Math and Science Standards | Meaningful Diploma/CORE 24

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UPDATE ON DELTA HIGH SCHOOL, A NEW STEM HIGH SCHOOL IN THE TRICITIES

SUMMARY OF POLICY ISSUE /STATE BOARD OF EDUCATION (SBE) STRATEGIC PLAN GOALS

Delta High School is a new STEM (Science, Technology, Engineering and Math) public high school in Washington. The Board has worked on strengthening our math and science standards to create a world class education for our students. It also has an interest in promoting stronger student achievement in math and science to prepare students for careers in these high demand fields. This new high school model relates to the Board's third goal: Improve student preparation for post-secondary education and the 21st century world of work and citizenship.

BACKGROUND

At the September 2008 Board meeting in Pasco, the Board received a briefing on the creation of the new STEM high school, which will open in the Fall of 2009 to 100 9th grade students in the Pasco, Kennewick, and Richland School Districts. At that time, the school was not yet named and had not secured a definite location. Delta High School is the new name and Columbia Basin College is providing the location for the school rent free for the first few years of operation. Local business leaders, teachers, scientists, and college professors created Delta High School. This school answers the call to raise a new generation of technical talent, as well as more scientifically literate citizens. Graduates of STEM high schools possess and use the knowledge, skills, and habits of mind necessary to pursue post-secondary education, technical training, and chosen career paths.

Delta High School has a rigorous and relevant STEM-focused curriculum that prepares each student for career, college, and life success in a changing world. State, national, and college-ready standards serve as the launch pad for this curriculum. The STEM high school design provides a tailored learning environment for students of all academic levels and interests.

Key characteristics of a STEM school include:

- College-ready and work-ready culture.
- Student as a worker, teacher as a facilitator, industry/community as mentors.
- Emphasis on personalized learning plans.
- Another pathway to success for students.

A lottery was held for 110 9th grade student places at Delta this spring. Over 200 students applied. The school is beginning with a 9th grade class and will add successive grades until it reaches a size of 400 students for 9th-12th grade in four years. Additional details on Delta High School are provided in the Board's packet. Deidre Holmberg, the planning principal, will update the Board at our meeting.

POLICY CONSIDERATION

This school builds upon and complements the strong educational foundation of the Tri-Cities. Delta High School aspires to serve as a pilot environment for the Tri-Cities, ultimately creating a bigger footprint on STEM education in the region and in the state of Washington.

EXPECTED ACTION

None

DELTA HIGH SCHOOL INFORMATION

Q: How was a STEM school developed for our community?

In a meeting with the three school boards in August 2007, Battelle, Washington State University Tri-Cities, and the Kennewick, Pasco and Richland School Districts formally proposed creating a new public, STEM (Science, Technology, Engineering, and Mathematics) high school in the Tri-Cities. Initial reaction from the school boards and the community was positive. The boards encouraged the partners to proceed with planning and to return when they had a plan in place that covered an educational framework, finances and a facility. The Boards were also interested in hearing how the three school districts, Battelle and WSU Tri-Cities would work together to operate the school.

Since that meeting, grants from Battelle and the Paul G. Allen Family Foundation allowed the partners to hire a planning project manager, Amy Ochander, in October 2007, and a planning principal, Deidre Holmberg, in July 2008. The grants also allowed the team to hire nationally recognized consultants in small school design and STEM education to help plan the Tri-Cities school.

Following the August 2007 meeting, the partners aggressively set about to create a highly personalized school that attracts a broad spectrum of students who will be immersed in STEM learning experiences. The partners held public meetings and engaged parents, students, teachers, scientists, engineers and community members in the planning process. Included in the school will be opportunities for student learning that parallels the ways scientists, engineers and mathematicians conduct inquiries and expand knowledge. Partnerships that connect academic learning to the world beyond the classroom will help prepare students to succeed in post-secondary education, careers and citizenship.

In fall 2008, Columbia Basin College generously offered use of its Richland campus – rent free – as a location for the first four-plus years. Renovations that include code upgrades, painting, carpeting and some light construction were identified as needed before the school can open. Several local organizations and individuals have stepped up and agreed to provide cash or in-kind services to make the renovations.

Also last fall, the Washington State STEM Education Foundation was created to support the STEM school, including raising funds to remodel the CBC Richland facility, as well as construct and maintain a permanent facility. Foundation members include leaders in local technology businesses and other organizations.

FUNDING

Q: How is the school funded?

State funding follows each student from their home districts. These funds cover a majority of operating costs.

However, it doesn't cover costs to construct or remodel a facility, nor does it cover some start-up infrastructure and operational needs, or important items such as on-going professional development. The Washington State STEM Education Foundation supports the school including raising the funds needed to remodel the CBC facility and to construct and maintain a permanent

school facility. The Foundation will create and manage an endowment fund that includes individual and corporate donations, endowments, grants, conveyances and gifts.

To date, the Foundation and partners have identified the funds and in-kind gifts needed to complete the remodeling of the CBC Richland facility prior to the opening of school, as well as funds to cover operations and start-up costs. These funds are from many sources, including several community organizations, institutions and individuals.

THE FACILITY

Q: Where will classes be held? Will it be in an existing building or will there be construction?

Initially, the school is located at CBC's Richland campus. We anticipate the school will be located there for four-to-six years, and then move into a permanent facility that is close to WSU Tri-Cities, Battelle, Pacific Northwest National Laboratory and other technology partners that will be accessed by the students and teachers.

EDUCATIONAL FRAMEWORK

Q: What classes will be offered? How is the curriculum being developed?

Representatives from the three school districts, WSU Tri-Cities, Battelle, consultants and many local education and science professionals collaborate to create the school's education framework, which includes a program of study, curriculum and classes.

What students learn is based on current research and best practices in education. Research-based instructional strategies and Washington State standards provide the foundation for all teaching and learning at the STEM high school. Several members of the core planning team are from nationally-recognized organizations, such as the Washington State Leadership and Assistance for Science Education Reform (LASER), the BSCS Center for Professional Development, WestEd, and EdWorks.

The program of study is unique in the Tri-Cities and focuses on building on what the students already know, learning about important ideas and principles in all the disciplines, including STEM, and experiences that connect academics to each other and to the world around them. Students can expect to receive an education that is dynamic, relevant, and has rigorous courses. They will engage in learning experiences that connect academics to each other and to the world around them. They should know that the school is about a community and is committed to their academic and personal success.

Q: Are you still considering hands-on internships for students' final year?

Absolutely. The STEM high school planners envision students culminating their time at the school with research and internships at Pacific Northwest National Laboratory, WSU Tri-Cities and other science and technology based firms in the area. Students also take part in numerous outside-the-classroom experiences throughout the first three years.

STUDENTS

Q: Who can attend this school?

Any student eligible to be promoted to ninth grade, who is passionate about something, who wants to attend the STEM high school, and lives within the Kennewick, Pasco or Richland School Districts is eligible for consideration.

Q: Is the school just meant for AP students or those who are going into science or engineering careers?

No! The STEM school is uniquely positioned to provide a highly personalized education to a broad spectrum of students – students of all academic levels and interests. In fact, we encourage students who wouldn't normally gravitate toward advanced science or math courses to attend the school.

Q: Then what will the student body look like?

In short, we believe the school should match the demographics of our school districts. We strongly advise students from groups traditionally underrepresented in STEM fields to explore attending.

Q: How will students be selected?

The percentage of seats allotted to Kennewick, Pasco, and Richland School District students will equal the percentage of population in each of the districts. Students apply to the program and the application process includes interviews with the students and their families. Admission requirements are designed to produce a student body that matches the demographics of each school district. If more students are interested than there are slots available, a lottery system will be used. Once students are enrolled, they will be tested for skills and content knowledge in all areas. An individualized student learning plan will be developed based on the results of those assessments.

Q: Will students receive a diploma from the new school?

No. Students will receive a diploma from their home school.

Q: Will the school have its own extracurricular activities?

No. Most extracurricular activities are not offered at the STEM high school, but students may participate in those offered by their school of origin, if scheduling allows. Students at the STEM high school will have to make special arrangements to participate in extracurricular activities at their schools of origin if those activities conflict with the schedule of the STEM high school.

Q: How will students be transported to and from the school?

The three school districts will provide transportation using their existing bus and transport systems.

Q: Is the school accepting students from other Mid-Columbia school districts?

Presently, the school is planned for students living in the Pasco, Richland, and Kennewick School Districts. The option for considering students from other districts may be explored later.

Q: Will a student who graduates from the STEM school be guaranteed admission to college?

A goal is to produce students who, at a minimum, are college and work ready upon graduation. Students in the school may take college courses as upperclassmen. In most cases, however, we can't guarantee a student will be accepted by a particular college or university. Washington State University Tri-Cities has offered to work with STEM students to assure they meet qualifications for admission to the university.

Q: Why limit the number to 100 per class?

This number works well at other STEM schools, including Metro School in Columbus, Ohio, which is associated with Battelle and others. Highly personalized learning within the small school model is a core attribute of the school. This model focuses on a small learning community, emphasizing individual student and faculty interaction. Each student's progress is individually assessed and addressed and personalized graduation plans are unique to the student's strengths, interests, and areas of growth.

STAFF

Q: Who will teach at the new school? What are their credentials?

The teachers will be employed by the three Tri-Cities school districts and meet state certification requirements. Many of the teachers will likely be on staff at schools within the three school districts. The aspiration is that, after some time teaching at the STEM school, the teachers will cycle back to their original school districts, bringing their experiences at the STEM school to other classrooms.

NAME

Q: Have you selected a name for the school?

This spring and summer we held a series of focus groups with students, parents and local marketing professionals to identify school attributes, which are the foundation for selecting a name and visual identity. We also invited the community members to submit names. From that, Delta High School was chosen.

PARTNERS

Q: Who is involved in the school?

The partners are the Kennewick, Pasco and Richland School Districts, Battelle, Washington State University Tri-Cities, and Columbia Basin College.

Q: What is WSU Tri-Cities' role?

WSU Tri-Cities will work with STEM high school students to provide research and intern opportunities with university faculty and graduate students. The STEM school will also serve as a laboratory for WSU Tri-Cities and WSU Pullman education and teacher training programs. WSU Tri-Cities has offered to work with STEM students to assure they meet qualifications for admission to the university.

Q: How is CBC involved?

CBC graciously stepped forward and offered use of their Richland campus facility – rent free – for the first few years of operation. This offer is on the order of about $500,000 savings if one were to lease a similar facility in the marketplace. CBC oversees the required renovations to the facility, with their project and construction management efforts saving the project about $50,000. Additionally, CBC takes on the required floor replacement and some of the demolition work.

Q: What is Battelle's role?

Battelle provides considerable funding for the planning phase and provides input based on its experience in advancing STEM education, including its experience with the Metro School in Columbus. Eventually, Battelle scientists and engineers will serve as coaches and mentors for some of the teachers and students, and students will take part in outside-the-classroom experiences and internships provided by or in concert with Pacific Northwest National Laboratory.

Reference: Delta High School Website (http://www.thedeltahighschool.com/faqs/)