



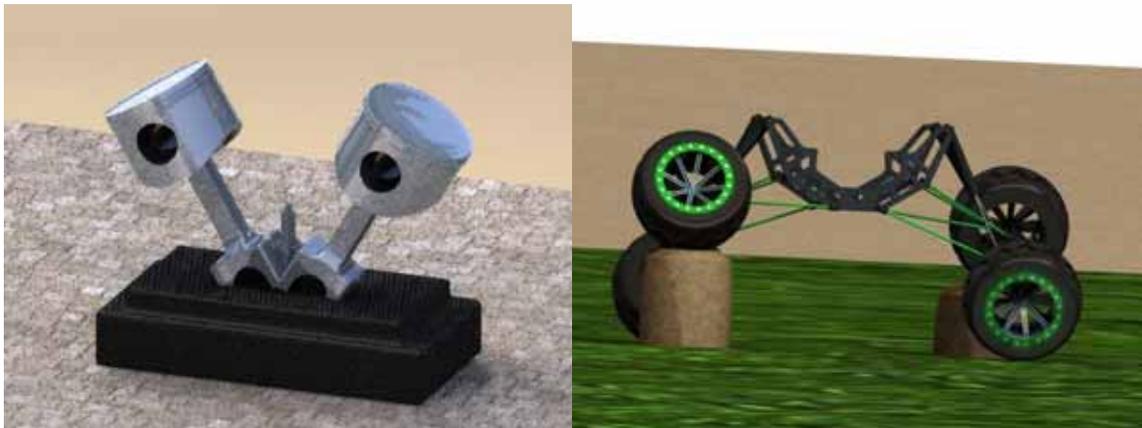
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## **Delivering the Best Possible Technical Education Snohomish District High Schools**

“What would your high-school technology center look like if there were no obstacles? If you could create your ‘dream program’ what would it look like?” That’s what Dr. Bill Mester, Superintendent, asked the educators in his Snohomish, Washington school district. He challenged the teachers to remove the blinders that kept them from providing the best possible experience to their students.

And what did they accomplish? In just 6 years the Snohomish community approved bonds to renovate existing schools and to build new schools and technology centers. The money was primarily spent on new construction and equipment. Notably, through contributions and sponsorships, the CAD systems they acquired are state-of-the-art, yet they cost little more than most other software.



*Pictured above are design projects completed in CATIA by students at Snohomish high schools.*

The 2 area high schools now have separate labs for: CAD, Prototyping, Machining, Construction, Engineering, Manufacturing, and Composites. The district has implemented CAD education in the middle schools as well, all with a view to learn skills to help students become employable in the manufacturing and aerospace industries in the Puget Sound area, including the area’s largest employer, Boeing.

But let’s back up. In 2003, Steve Cotterill was the Director, Career and Technical Education for the Snohomish School District. In that role, Steve was responsible for the implementation of all technology-based education programs in the district. And in Steve’s words, “the technology center was working with tools that pre-dated WWII.” So Steve invited representatives from local manufacturing companies in to recommend some updates. But he didn’t like the answer. The manufacturing representatives told him to throw out all the equipment and start over. To a long-

standing civil servant like Steve, that just didn't reflect the budgetary reality of a public school system. Obstacles were identified, and strategies were developed to overcome them and to get the program started.

If dreaming big is a prerequisite to excellence, the next step was concept planning. Working with a council of community representatives, the Snohomish School District dreamed of an educational process that allowed students to explore their areas of interest, guided by a manager rather than lectured by a teacher. They recognized that students have passions and interests in technology that can be harnessed to support their curiosity. So they dreamed of current and future technologies in every classroom so that students would get out of their chairs and participate in their own learning.

Working with ENGINEERING.com, Snohomish School District has deployed CATIA design software from Dassault Systèmes throughout the high schools in the district. This choice was endorsed by the Snohomish Manufacturing Advisory Council to ensure that Snohomish students are ready for the opportunities in design and engineering that Boeing and other companies will offer. Snohomish representatives were impressed that ENGINEERING.com focuses strictly on educational institutions rather than having their attention diverted by commercial accounts.



According to David Livingstone, Education Account Manager at ENGINEERING.com, "Snohomish educators had a vision to start all manufacturing instruction with the design process. All of their students graduate with an understanding of CAD and how it impacts all segments of the manufacturing industry." And the education doesn't stop at graduation. Students can explore work assignments with local manufacturers to earn college credits. And they can study after high school at a local community college or university. As Steve Cotterill points out, "Boeing doesn't hire 18 year olds to design aircraft."

*Bicycle chain design completed in CATIA by students at Snohomish high schools.*

Livingstone was also happy to note that the Snohomish schools have taken advantage of the deeply discounted educational pricing from ENGINEERING.com to make CATIA available to every student who will graduate from their programs.

It didn't happen overnight, but after 5 years the district opened the doors on its newest technology center in a new high school in September 2008 and another one in a renovated high school later last year. These technology centers reflect the state-of-the-art and a very large capital budget. But as Cotterill pointed out, "CATIA pricing for high schools is really quite reasonable." So even if a school district doesn't have the budget of Snohomish, they can still afford to deliver the best educational CAD software to their students.

