

# SENATE BILL REPORT

## HB 2621

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As of March 1, 2010

**Title:** An act relating to designating resource programs for science, technology, engineering, and mathematics instruction in K-12 schools.

**Brief Description:** Designating resource programs for science, technology, engineering, and mathematics instruction in K-12 schools.

**Sponsors:** Representatives Orwall, Maxwell, Darneille, Morrell and Haigh.

**Brief History:** Passed House: 2/13/10, 94-0.

**Committee Activity:** Early Learning & K-12 Education: 2/24/10 [DPA-WM].

**Ways & Means:** 2/27/10.

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### SENATE COMMITTEE ON EARLY LEARNING & K-12 EDUCATION

**Majority Report:** Do pass as amended and be referred to Committee on Ways & Means.

Signed by Senators McAuliffe, Chair; King, Ranking Minority Member; Brandland, Holmquist, McDermott, Roach and Tom.

**Staff:** Kimberly Cushing (786-7421)

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### SENATE COMMITTEE ON WAYS & MEANS

**Staff:** Elise Greef (786-7708)

**Background:** In Washington the Legislature has directed a number of activities in recent years intended to enhance science, technology, engineering, and mathematics (STEM). STEM teaching and learning, such as revising the state mathematics and science standards, identifying recommended curricula, providing professional development to support the revised standards, increasing the high school graduation requirement in mathematics, and providing support for STEM learning activities such as FIRST Robotics and LASER.

There are also examples of locally initiated programs to provide enhanced learning opportunities for students in STEM, including at least three high schools geared to a STEM theme:

- Aviation High School (Highline School District);

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- Delta High School (partnership of Kennewick, Pasco, Richland School Districts, Columbia Basin College, Washington State University Tri-Cities, and Battelle); and
- Science and Math Institute at Point Defiance (Tacoma School District).

**Summary of Bill (Recommended Amendments):** If funds are appropriated for this purpose, the Superintendent of Public Instruction (SPI) must designate up to three middle schools and high schools to serve as resources and examples of how to combine the following best practices:

- a small, highly personalized learning community;
- an interdisciplinary curriculum with strong focus on STEM subjects, delivered through a project-based instructional approach; and
- active partnerships with businesses and the local community.

The designated middle and high schools serve as lighthouse programs to provide technical assistance and advice to other schools and communities who are in the initial stages of creating a STEM learning environment. They must have proven experience and be recognized as model programs. The Office of the Superintendent of Public Instruction (OSPI) must work with the designated middle and high schools to publicize their models of STEM instruction and encourage other middle and high schools and communities to replicate similar models.

**EFFECT OF CHANGES MADE BY EARLY LEARNING & K-12 EDUCATION COMMITTEE (Recommended Amendments):** Adds intent language recognizing the Legislature's initiation of funding for middle school STEM programs. Subject to funds appropriated for the purpose, directs OSPI to designate up to three middle schools as "lighthouse" middle schools in addition to the up to three high schools to serve as resources and examples of best practices in STEM.

**Appropriation:** None.

**Fiscal Note:** Available.

**Committee/Commission/Task Force Created:** No.

**Effective Date:** Ninety days after adjournment of session in which bill is passed.

**Staff Summary of Public Testimony on Original Bill (Early Learning & K-12 Education):** PRO: Washington State is committed to STEM programs across the spectrum. We need to replicate best practices throughout the state. Many school districts have already begun some successful programs. This bill will create a vast library of resources around the state for schools to start unique STEM programs tied to the community. This legislation is excellent. Aviation High School has a very innovative approach and was born out of a critical need to create math and science courses. Kids are learning things with a hands-on approach. Professionals from Boeing and Microsoft come in and help kids learn. Such programs lead to careers that have a critical gap in the workforce. Aviation requires application of STEM. Students fully engage heads, hearts, and hands. As a student at Aviation, I have been able to foster an interest in math and science and have learned about all the opportunities in engineering. I have to build it and see it to remember and understand math and science

concepts. Project-based learning allows application of math. When these kids become contributing members of the community they have the skills they need.

**Persons Testifying (Early Learning & K-12 Education):** PRO: Representative Orwall, prime sponsor; Reba Gilman, Ryan Sanders, Lydia Johnston, Aviation High School; Lucinda Young, Washington Education Association; Tim Knue, Washington Association for Career and Technical Education.

**Staff Summary of Public Testimony (Ways & Means):** PRO: This is an excellent bill that will help a few high schools who are really geared to science, technology, engineering, and mathematics to thrive.

**Persons Testifying (Ways & Means):** PRO: Senator Keiser.