



# **Hamilton School District**

## **Educational Services/Human Resources**

**To:** Board of Education  
Hamilton School District

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District Administrator

**Date:** May 1, 2007

**From:** Dean Schultz, Assistant Superintendent  
Educational Services/Human Resources

**RE:** Project Lead the Way, 2007-2008

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Project Lead the Way (PLTW), a non-profit organization, has been established to help schools give students the knowledge they need to excel in high-tech fields. The coursework focuses on engineering principles, concepts and real-world problems. The high school program centers on developing better problem-solving skills by immersing students in real world engineering problems. There are six potential courses available to high school: Principles of Engineering, Introduction to Engineering Design, Digital Electronics, Computer Integrated Manufacturing, Civil Engineering and Architecture, and Engineering Design and Development. At the middle school level four units of study are available (and more are being created) in a program called "Gateway to Technology." The units of study include: Design and Modeling, The Magic of Electrons, The Science of Technology and Automation and Robotics.

### I. Current Status

#### A. Templeton Middle School

Gateway to Technology and Engineering is in its first year serving 320 students at grade 7. At grade 8 Technology and Engineering serves 58 students through a daily elective; 288 students receive instruction through the science curriculum (Machines, Work and Energy Unit). Two of the teachers received training at the Milwaukee School of Engineering during the summer of 2006. The program is successful. Students utilize both design skills and building skills. The designs are created in the child's mind, then translated into a computer, then built. Computer technology is at the heart of the program. A prototype is generated on the computer, then fabricated in the classroom.

#### B. Hamilton High School

Project Lead the Way will begin in the fall of 2007 with three sections of Introduction to Engineering Design (IED). Seventy-three students have signed up. Two teachers will have responsibility for teaching the coursework. The remodeling is underway.

### C. Funding

Both district and grant funds will be used for this program. The district received a three year grant totaling \$42,000 from the Kern Family Foundation to offset some of the start-up costs of the program.

1. Staffing has been funded through the overall staffing plan. Professional development will be funded through the Kern Family Foundation grant. Two high school staff members will receive training at the Milwaukee School of Engineering during the summer of 2007. The staff members will receive reimbursement for graduate credit (and be able to move on the salary schedule) or a stipend of \$1000.
2. High school curriculum writing will also have to occur. This cost will also be covered by the grant from the Kern Family Foundation.
3. Classroom remodeling to implement the new curriculum is funded through district capital improvement projects.
4. Computer hardware is funded through the district technology budget except for the required teacher laptops which are funded through the grant from the Kern Family Foundation.
5. Classroom materials are funded through a grant from the Kern Family Foundation for the first three years of the program.

### II. Projected Plans

Enrollment will be monitored through the 2007-2008 school year with the goal being to create additional coursework opportunities. In 2008-2009 Principles of Engineering will be available to high school students with additional courses to follow. More staff will be trained at grade eight (during the summer of 2008) and the number and type of course offerings in the Gateway to Technology Program at the middle school will be evaluated during the 2007-2008 school year to identify possible additions/revisions.