Forging new generations of engineers
What is Project Lead The Way?
PLTW is... a non-profit organization that works with schools to get students interested in engineering and engineering technology.
The primary goal:

To grow the nation’s technology workforce.
The Problem:

- By 2010 half of all baby boomers will be gone from the workforce, the other half by 2020.

- In 2020, there will be 15 million engineering/engineering technology jobs available.

- There are fewer American students enrolling in engineering programs and staying in until graduation.
The Solution

- PLTW classes provide students with:
  - Exposure to the different fields of engineering
  - Hands on, problem solving experience
  - A chance to apply math and science skills learned in core classes.
  - The opportunity to meet engineers and technicians and to see their workplaces firsthand.
PLTW Network Growth

- 1997-98  13 schools - 1,138 students
- 1998-99  37 schools - 4,652 students
- 1999-00  98 schools - 14,156 students
- 2000-01  168 schools - 23,000 students
- 2001-02  282 schools - 35,000 students
- 2002-03  502 schools - 55,000 students
- 2003-04  640 schools - 65,612 students
- 2004-05  990 schools - 120,000 students
- 2005-06  1300 schools - 170,000 students
PLTW Courses in the High School
Foundation Course: Principles Of Engineering
Foundation Course:
Introduction To Engineering Design
Foundation Course:
Digital Electronics
Specialization Course:
Computer Integrated Manufacturing
Specialization Course:
Civil Engineering and Architecture
Capstone Course: Engineering Design and Development

Problem Solving in Teams

Juried Presentations
Who should take PLTW courses?
Students who may be:

- In the top 80% of his/her class.
- Good in mathematics and science.
- Interested in being an engineer or technologist.
- Good in art and design.
- Interested in computers.
- Anyone who might get “hooked” by a high tech – hands on class.
- Students who learn best by “doing.”

But most of all...
The Student who is:

Willing to work hard!!!
General Course Layout: POE

- Project is introduced

Necessary math and science skills are taught

Project work begins, journaling is done every day

Project is tested and evaluated

Written and oral reports are prepared and presented.
College Credit:

- College credit available from both Iowa State University and The University of Iowa through end of the year exam.

- At Muscatine High School credit is also offered through the dual-credit program with Muscatine Community College.
Partnership Team

- Consists of:
  - PLTW teachers
  - School administrators
  - Counseling staff
  - Local engineering and technology business representatives
  - Parents of PLTW students.
Partnership Team

Goals:

- Increase awareness and enrollement in the program
- Provide curriculum support and enrichment opportunities
- Create a mentoring program to follow students through their high school and post-secondary education
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