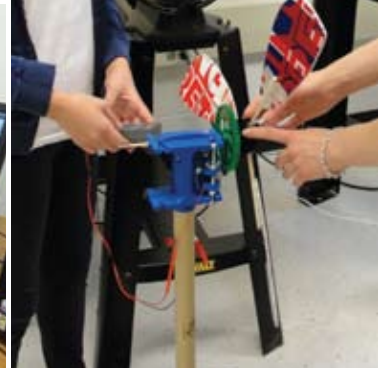
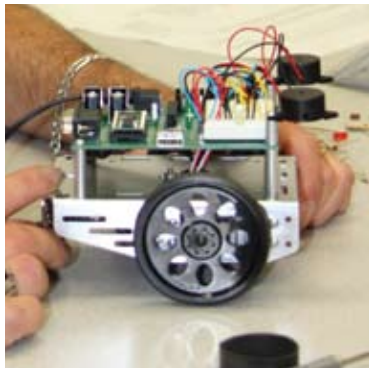


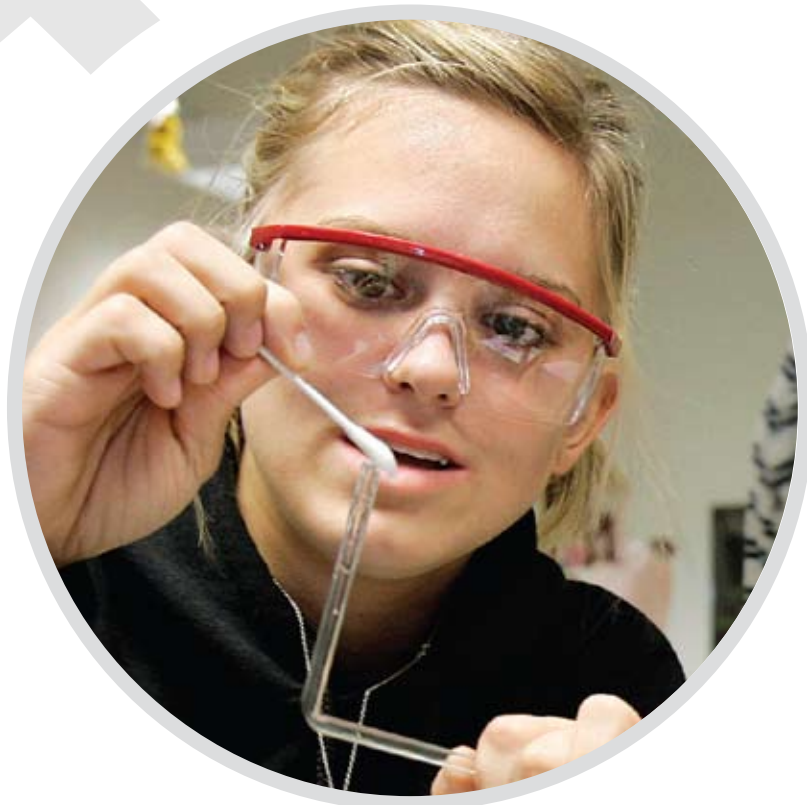
2009-10

model schools

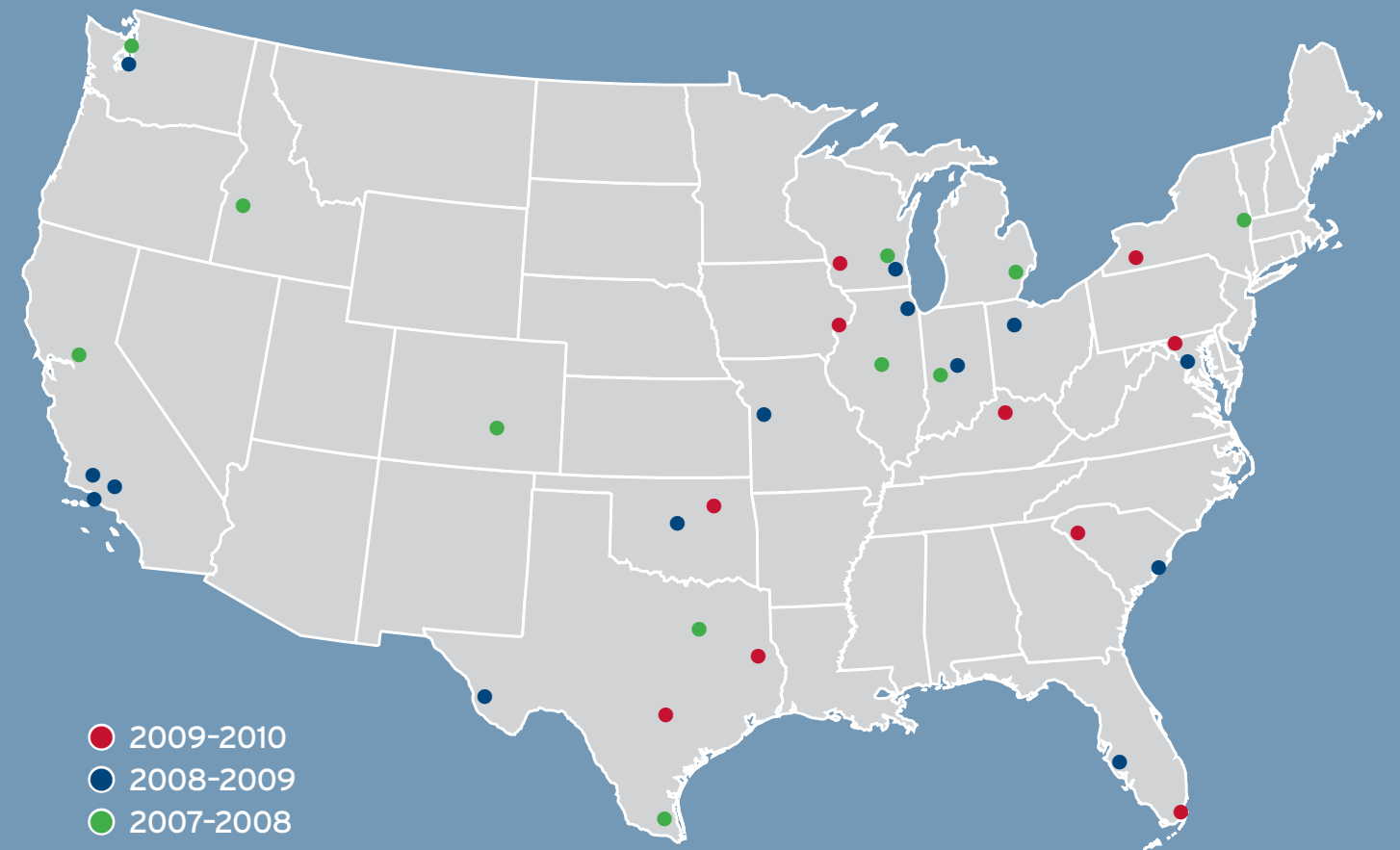


A model for our schools and a model for STEM education.

The PLTW program thrives on three important factors – imagination, innovation and learning. Nowhere is this more evident than in the schools selected to be 2009-10 PLTW Model Schools. Collectively, they encompass the best that PLTW has to offer to today's middle and high school students. Individually, they represent outstanding examples of how schools can implement PLTW's rigorous STEM education program to meet the unique needs of their own community. This brochure honors and celebrates the PLTW Model Schools class of 2009-10 by introducing some of the highlights of their inspiring and exemplary programs. It also provides important background on the Model Schools program, including key areas for judging and selection. All of which can help existing PLTW schools, as well as those just getting started, to grow and enhance their own unique PLTW programs.



52 schools from 23 different states submitted nominations. Nominated schools were judged against 37 performance indicators, within nine quality categories. A panel of PLTW State Leaders and Affiliate Directors led the evaluation process that was conducted in two stages over a six-week period.



A national footprint of diversity and success.

Today, there are PLTW programs in more than 4,000 schools across the country, making it the nation's leading provider of rigorous STEM education for middle and high school students. One of the main reasons for this outstanding distinction and impressive number of implementations is the ability of the innovative PLTW curriculum and teacher and counselor support services to effectively address the unique needs of different school environments serving diverse student populations in varied geographic locations. Indeed, you'll find that PLTW Model Schools, including this year's recipients, come in all shapes, sizes and locations, helping to demonstrate that middle schools and high schools in any state or district across the country can succeed with PLTW.





Anderson Districts 1 & 2 Career and Technology Center, South Carolina: Through the PLTW Biotechnical Engineering and Principles of Engineering programs, high school students at Anderson are studying the process of producing biodiesel fuel from olive and vegetable oil, as well as learning how to convert a gasoline engine to a propane engine.

Clarence Middle School, New York: The addition of PLTW's newest middle school curriculum, Energy and the Environment, which exposes students to the consequences of using nonrenewable energy sources nationally and globally, prompted a change in classroom behavior. The leadership role in the classroom was clearly assumed by a different group – the girls.



Clear Springs High School, Texas: PLTW students are learning how to grow food in space to help sustain astronauts on long flights. This three-year-long project in developing and testing aeroponics and hydroponics includes designing a food growth chamber that PLTW students will test in a zero gravity environment on NASA's Boeing 727 flying science laboratory through the agency's Reduced Gravity Student Flight Opportunities Program.

Davenport West High School, Iowa: Davenport's 39-person Partnership Team (also called an Advisory Council) provides critical funding support, including funding the middle school PLTW Gateway Academy program to get kids interested in STEM fields even earlier, and scholarships to cover costs associated with earning college credit for financially disadvantaged students.



Gulliver Schools, Florida: Gulliver's PLTW students within the Engineering Department undertook an initiative to develop a self-sufficient water purification system for Haiti. The device employs an ultraviolet filter powered by a solar panel, and is enclosed in a mobile chassis for portability. The device has been delivered to a children's hospital in Haiti.

Lake Travis High School, Texas: Lake Travis takes pride in making the PLTW program open and accessible to all its students and teachers. The program appeals to the top 90% of students – in other words, everyone. And the most recent PLTW teachers recruited from within include an art teacher, two math teachers and two computer science teachers.

What does it take to become a PLTW Model School?

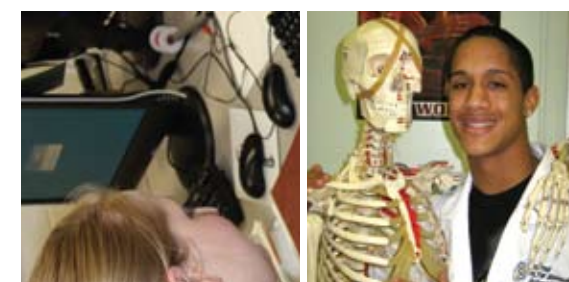
Along with a lot of hard work on the part of many dedicated faculty members and administrators, the 2009-10 PLTW Model Schools embody a set of important qualities and characteristics. Many of these reflect key elements of the performance indicators outlined in PLTW's National Certification application, and were used as part of judging and selection criteria. For example, the PLTW program at a number of 2009-10 Model Schools is being fully implemented, with more than 25% of the student population participating. Partnerships with business and industry and postsecondary institutions are in place and actively supporting the curriculum. Many of the Model Schools have developed a robust student recruitment strategy, which often features ongoing coverage of their program by the local media. Professional development is a mainstay of most 2009-10 Model Schools, with teachers and counselors not only attending PLTW summer training programs, but also in some cases taking an active role in leading them. And all of the Model Schools selected provide their students with the opportunity to work with professionals in STEM fields.

For more information about our Models Schools program and this year's recipients, visit www.pltw.org/model-schools.



Scott County Schools, Kentucky: Scott County has created a unique district-wide PLTW implementation using the concept of villages – PLTW Pre-Engineering Village, PLTW Biomedical Sciences Village and Media Arts Village. Designed to provide a more intimate and more focused learning environment for students, this approach also promotes greater collaboration between teachers and greater integration of the disciplines.

Southwest Academy For 21st Century Excellence, Wisconsin: This ideal solution for small rural schools features a consortium of seven schools and Southwest Wisconsin Technical College that cooperatively share important resources, such as software, equipment and materials. The consortium brings STEM education to 2,000 students within a 100-square-mile radius in rural Wisconsin.



Tulsa Technology Center, Oklahoma: Tulsa Tech recently formed an alliance with Tulsa Community College (TCC) and Oklahoma State University – Tulsa (OSU-Tulsa). The Tulsa Engineering Three (Te3) is a 2+2+2 alliance that supports a seamless transition into TCC and then OSU, all credits moving with the student. A K-16 committee has been formed to dovetail PLTW curriculum with corresponding college courses.

Washington County Technical High School, Maryland: A pilot site for PLTW Biomedical Sciences, WCTHS also offers a full complement of PLTW engineering courses. Washington builds on the real-world nature of the curriculum by giving students the opportunity to work for Hagerstown College's InnovaBio/MD incubator. They're not mimicking a real research lab; they are a real lab.



ANDERSON DISTRICTS 1 & 2 CAREER TECH - Williamston, South Carolina

Student Population: 1,710

PLTW Teachers: 5

PLTW Programs:
 – Gateway To Technology
 – Pathway To Engineering
 – Biomedical Sciences

Category: Suburban and rural

Colleges Attended By Graduates: University of South Carolina, Clemson University, The Citadel

Partnership Team: Bosch, University of South Carolina, BASF, AGCO, Palmetto Middle School, Tri-County Technical College



CLARENCE MIDDLE SCHOOL - Clarence, New York

Student Population: 1,200

PLTW Teachers: 4

PLTW Programs:
 – Gateway To Technology
 – Pathway To Engineering

Category: Suburban

Colleges Attended By Graduates: Rochester Institute of Technology, University of Buffalo, Buffalo State, Clarkson, RPI, Purdue, Air Force Academy, University of Rochester, Michigan State, Massachusetts Institute of Technology

Partnership Team: Frank P. Langley Co., Inc., Army Corps of Engineers, Praxair



CLEAR SPRINGS HIGH SCHOOL - League City, Texas

Student Population: 2,435

PLTW Teachers: 4

PLTW Programs:
 – Pathway To Engineering

Category: Suburban

Colleges Attended By Graduates: University of Houston, University of Texas, Texas A&M University

Partnership Team: NASA Johnson Space Center, Boeing, San Jacinto College, Malone Industrial, NuStar, Clear Springs High School



DAVENPORT WEST HIGH SCHOOL - Davenport, Iowa

Student Population: 1,920

PLTW Teachers: 2

PLTW Programs:
 – Pathway To Engineering

Category: Urban

Colleges Attended By Graduates: Iowa State University, St. Ambrose University, University of Illinois, University of Iowa, Rose-Hulman Institute of Technology, Milwaukee School of Engineering, Bradley University, Eastern Iowa Community College, Kirkwood Community College, University of Northern Iowa

Partnership Team: John Deere, Alcoa, Exelon Nuclear, Packaging Technologies, U.S. Army Corps of Engineers



GULLIVER SCHOOLS - Miami, Florida

Student Population: 1,300

PLTW Teachers: 3

PLTW Programs:
 – Gateway To Technology
 – Pathway To Engineering
 – Biomedical Sciences

Category: Private

Colleges Attended By Graduates: University of Texas, University of Pennsylvania, Georgia Tech, Virginia Tech, Harvard University

Partnership Team: University of Miami, Friends of the Orphans, Sunrise Community Center



LAKE TRAVIS HIGH SCHOOL - Austin, Texas

Student Population: 2,100

PLTW Teachers: 4

PLTW Programs:
 – Pathway To Engineering

Category: Suburban

Colleges Attended By Graduates: University of Texas, Texas Tech University, Texas State University

Partnership Team: ACTE, Siemens Building Technologies, National Instruments, E3 Alliance, Austin Community College, Lake Travis Chamber of Commerce, Lake Travis ISD



SCOTT COUNTY SCHOOLS - Georgetown, Kentucky

Student Population: 8,000

PLTW Teachers: 8

PLTW Programs:
 – Gateway To Technology
 – Pathway To Engineering
 – Biomedical Sciences

Category: Rural

Colleges Attended By Graduates: University of Kentucky, University of Louisville, Bluegrass Community and Technical College, Purdue University

Partnership Team: Toyota Motor Manufacturing, Bluegrass Community College, The Center for Quality People and Organizations, University of Kentucky



SOUTHWEST ACADEMY FOR 21ST CENTURY EXCELLENCE - Southwest, Wisconsin

Student Population: 1,977

PLTW Teachers: 6

PLTW Programs:
 – Gateway To Technology
 – Pathway To Engineering

Category: Rural

Colleges Attended By Graduates: Southwest Wisconsin Technical College, University of Wisconsin-Platteville, Marquette University, Milwaukee School of Engineering, University of Minnesota

Partnership Team: Cooperative Education Service Agency #3, Delta 3 Engineering, Esterline Avista, Southwest Wisconsin Technical College, University of Wisconsin-Platteville, John Deere, Platteville Area Industrial Development Corporation, among others



TULSA TECHNOLOGY CENTER - Tulsa, Oklahoma

Student Population: 4,000

PLTW Teachers: 14

PLTW Programs:
 – Pathway To Engineering

Category: Rural

Colleges Attended By Graduates: Oklahoma State University, University of Oklahoma, University of Tulsa, Tulsa Community College, Oklahoma Christian College, Colorado School of Mines, Missouri University of Science and Technology

Partnership Team: Selser Schaefer Architects, Magellan Midstream Partners, McElroy Manufacturing, W.W. Grainger, Inc., University of Oklahoma, Oklahoma State University, University of Tulsa, Oral Roberts University, Tulsa Community College, among others



WASHINGTON COUNTY TECHNICAL HIGH SCHOOL - Hagerstown, Maryland

Student Population: 460

PLTW Teachers: 3

PLTW Programs:
 – Pathway To Engineering
 – Biomedical Sciences

Category: Suburban

Colleges Attended By Graduates: Penn State, West Virginia University, University of Pittsburgh, Capitol College, West Point, Shepherd University, University of Tennessee, Hagerstown Community College, Frostburg State University

Partnership Team: Applied Biosystems, Hagerstown Community College, National Cancer Institute, Washington County Hospital System, Action Products, Aviation Resource DE, Inc., BMGM Architects, Northrop Grumman, Shepherd University, among others



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