

"My goal is to give my students the experience of technology and engineering. It's a wide open field."

Margie Dobler was an engineer for seven years with General Motors and a Purdue University graduate before becoming a teacher.



**MARGIE DOBLER, SOUTH ADAMS
PLTW TEACHER**



**JOSH SALWAY, BELMONT
PLTW TEACHER**

Belmont HS became a certified Project Lead the Way school in 2010. The PLTW courses are eligible for college credits through Ivy Tech Dual Credits Program, including Intro to Engineering Design, Principles of Engineering, Civil Architecture and Engineering, and Digital Electronics.

"I'm very interested in an engineering career... I was surprised to learn that the size of the helicopter's engine was 2 ft. to be powerful enough to do what it needs to do."

Remarks made during a PLTW field trip when the Lutheran Hospital's Lifeline unit and ER personnel visited Belmont.



**DRAKE REIDENBACH
BELMONT PLTW STUDENT**



NORWELL PLTW TEACHER TOM WHITE shows car models that are used initially to measure in metrics and inches, then to assemble in a variety of ways. There are five different models for study. Knowing Algebra I is necessary for the class.



With an emphasis on problem solving, **PROJECT LEAD THE WAY TEACHER JONATHAN PATTERSON**, or "Mr. P." as his students refer to him, assists Taylor Biberstine, an eighth grader in his Introduction to Engineering class. All eighth grade students, who have successfully completed Algebra I at Adams Central High School, are strongly encouraged to take this introductory class in the Project Lead the Way sequence of courses.

Search, Find, Conquer PLTW teaches problem solving skills

It is posted all over the room: STEM - Science, Technology, Engineering, Mathematics.

The acronym is the center of the philosophy behind a curriculum first developed in 1997 as a "Pathway to Engineering" program in 12 New York high schools, and is now headquartered in Indianapolis with more than 4,200 schools in all 50 states.

PLTW is project- and problem-based curriculum, according to its web site, www.pltw.org. The intention of the pre-engineering curriculum, in which teacher training is mandated, is to expose students to areas with

a path to college and career success.

"It can be a little intimidating," claims career engineer turned teacher Marge Dobler from South Adams High School.

Eighth grader Jadon Evans agrees that the course can be intense.

"It's pretty tough math" Evans said. We use Geometry in addition to Algebra, and measurements must be exact."

"It's fun," Evans continued, "because we can take our Auto Desk sketches and make them come alive."

The transition from collaboration and paper sketches to computer specifications and actual

creation and marketing of the product has plenty of the students excited.

"I like building things on the computer and in the wood shop," Tyler Bluhm said.

Each term, the students brainstorm a product, create the dimensions on the computer and then build a prototype that will be built and then sold to the public.

"Last year the students made iPad stands that a lot of teachers bought," Central Adams PLTW teacher Jonathan Patterson said.

Following the introductory course, students may choose from two pathways: Engineering or Technology.