Spring-Ford Area School District & Project Lead the Way

STEM Education Program 2014-2015

October 28, 2013
What is STEM?

**STEM** stands for a cluster of careers in the fields of:

- Science
- Technology
- Engineering
- Math
What Do We REALLY Mean by STEM?

Any field or career that:

* Creates, Discovers or Applies New Knowledge to Make Life Better for All!
In Other Words...

STEM careers:

- Search for **new** information, methods, and ways to do and understand things better
- Work to effectively and efficiently **solve** the world’s problems
- Require you to **innovate**, create, & discover
- Require you to ask **why** and **how** about things that need to be built, invented and designed
Project Lead the Way

Spring-Ford Area School District is pleased to partner with Project Lead the Way to bring our students a new STEM education program beginning in the 2014-2015 school year.

We completed a grant application for $35,000 over three years and should receive word in January if we have been awarded any funds.
The first Project Lead the Way Course,

Introduction to Engineering Design

is on the Board Agenda (10/28/13) for approval.

• It is our hope that students will choose the full PLTW pathway and take all four courses in the program (9th-12th grade).
The Project Lead the Way pathway will include:

**Introduction to Engineering Design (9th)**

**Principals of Engineering (10th)**

*TBD*, choices include: Aerospace Engineering, Biotechnical Engineering, Civil Engineering and Architecture, Computer Integrated Manufacturing, Digital Electronics (11th)

**Engineering Design and Development (12th)**
Research shows...

• PLTW students achieve significantly higher scores in reading, mathematics and science and in some cases have the opportunity to receive college credit.

• They earn higher GPAs as freshmen in college. PLTW alumni are studying engineering and technology in greater numbers than the national average, with a higher retention rate in college engineering, science and related programs than non-PLTW students.
Questions?
Traditional Technology Education Pathway

9th Grade Center

**Materials Manufacturing (Minor) I:** This course will be a combination of two current courses - Introduction to Materials and Construction Systems

**Technology Systems I (Minor)**

10-12 Grade Center

**Materials Manufacturing (Minor) I:** This course will be a combination of two current courses - Introduction to Materials and Construction Systems.

**Materials Manufacturing (Major) II:** This course will be a more advanced version of Materials I.

**Technology Systems I (Minor)**

**Technology Systems II (Major):** This course will be a more advanced version of Tech Systems I.