

This document has been prepared by an experienced Project Lead The Way educator to support high school Engineering teachers in implementing the STEM Week Challenge with their students.

Why this Challenge?

Each PLTW course has specific content into career awareness. The STEM Week Challenge allows students to further explore a career that interests them while having the opportunity to connect with a professional in that field, deepening their interest and understanding while helping them build the network skills that are crucial for accessing opportunities post high school.

General PLTW Resources

There are several PLTW resources that may support your students' experience with the STEM Week Challenge. Consider the following strategies:

- ✓ Direct students to supplement their research with **PLTW's Career Profiles**, in-depth profiles of individuals in related fields that are linked in the Career Connections sections of PLTW's student materials.
- ✓ Utilize the following **Professional Practices** (located in General Student Resources) to supplement aspects of the STEM Week Challenge project for students who need more help: Professional Communication (could supplement or replace resources on Day 4), Providing Peer Feedback (could replace the Tuning on Day 8), Professional Networking, and Delivering Effective Presentations.

Pacing Guidance

The following are PLTW activities and projects that overlap with STEM Week Challenge content and could cut or shortened to build in time for the STEM Week Challenge.

Course	Activity to Shorten or Replace
Introduction to Engineering Design	Career Connections within Unit 1:1 Design Basics <i>Pro tip: Consider having students ask their professional contact how they connect their everyday work to the Engineering Design Process.</i>
Principles of Engineering	Replace Activity 1.1.0 Career Exploration Project <i>Pro tip: Consider limiting career choices to engineering fields.</i>
Civil Engineering & Architecture	Career investigation in Unit 1.2 Design Charette <i>Pro tip: Consider having students ask their professional contact advice for completing the Design Charrette</i>
Engineering Design and Development	Some of the lessons in Component 0 (NOT suggested to skip the Mini Design Project) <i>Pro tip: Consider having students ask their professional contact to serve as a mentor and/or provide feedback over the course of their project development</i>

Modified STEM Week Schedule

If you have limited time in your Engineering class(es), you may want to find opportunities to reduce the instructional time spent on the STEM Week Challenge. The following calendar provides one potential approach for streamlining the project, reducing the estimated instructional time needed to ~7 instructional hours.

Key: **Red** = cut activity **blue** = add activity **yellow** = do as homework

Project Day	Day 1 Project Launch	Day 2 Career Exploration and Research	Day 3 Focus on Networking	Day 4 Making Industry Contacts	Day 5 Product Review
Modified Day	Day 1		Day 2	Day 3	Day 4
Modified Activities	Gallery Walk And need-to-Know List Project Information Sheet Career Coach Survey Career Sprint		Networking Video Network Mapping Team Formation and agreement	Draft, Revise, and Send Industry Contact Emails Work time	Industry Interview Prep Product Review Team Work Time
Notes	Save additional time by making Gallery Walk a whole class activity, voicing over information sheet, and making reflection homework		Do reflections as homework to save time, as needed		

Project Day	Day 6 Revisit Project Launch	Day 7 Work Time	Day 8 Peer Feedback	Day 9 Work Time	Day 10 Showcase and Reflection
Modified Day	Day 5		Day 6		Day 7
Modified Activities	Revisit Video Clips and Project Launch Activities Team Work Time		Tuning Protocol – Product Focused Team Work Time		Showcase Reflection
Notes	Reflections and additional work time done as homework, if needed		Reflections and additional work time done as homework, if needed		

“Flex” Approach: If you cannot commit 10 full class periods but want students to have the full experience, consider spreading out the activities over >10 class periods. Most activities are 15-25 minutes and can be embedded into other lessons. Encourage students to work on their STEM Week Challenge projects if they finish other class activities early.

“Mini” approach: If your students have well-established routines around homework and teamwork, considering reducing the amount of in-class time needed for the STEM Week Challenge by completing the following activities as homework:

- Career coach survey and job sprint (Day 2)
- Networking video (Day 3)
- Draft, revise, and send email (Day 4)
- Industry interview prep (Day 5)
- Product review (Day 5)
- Most work time (Days 5-9)
- All reflections (Days 1-10)