

Designing Solutions Activity

#2: Pringles Potato Chip Mailing Challenge

General Objective: To provide an opportunity for students to design solutions in engineering based on observing a phenomenon and asking questions.

The facilitator does the following:

1. After students have DEFINED the Pringles Chip Challenge, have them design a solution by first drawing sketches/diagrams of possible mailing devices.
2. Have students generate a list of needed materials, and either provide the materials or have students gather the materials.
3. Provide time for students to design solutions using the [Engineering Design Process sheet](#) (PDF format).
4. Provide time for testing and redesign.
5. Use the [Pringles Potato Chip Mailing Challenge](#) document (from Google Docs) as a facilitator guide.

Related Crosscutting Concepts:

- [Cause & Effect](#)
- [Scale, Proportion & Quantity](#)
- [Systems & System Models](#)
- [Structure & Function](#)
- [Stability & Change](#)

Related Disciplinary Core Ideas:

- [Core Idea PS1: Matter and Its Interactions](#)
 - [PS1.A: Structure and Properties of Matter](#)
- [Core Idea PS2: Motion and Stability: Forces and Interactions](#)

- [PS2.A: Forces and Motion](#)
- [PS2.B: Types of Interactions](#)
- [PS2.C: Stability and Instability in Physical Systems](#)
- [Core Idea ETS1: Engineering Design](#)
 - [ETS1.A: Defining and Delimiting an Engineering Problem](#)
 - [ETS1.B: Developing Possible Solutions](#)
 - [ETS1.C: Optimizing the Design Solution](#)
- [Core Idea ETS2: Links Among Engineering, Technology, Science, and Society](#)
 - [ETS2.A: Interdependence of Science, Engineering, and Technology](#)