Gourmet Gardens
“Get Growing” Lesson Plan

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Lesson Overview

- Grade Level: 5-8
- Time: Three or Four 50-Minute Lessons
- Lesson Objectives
  - Students will know planting specifications for green bean seeds.
  - Students will design a green bean planter that meets set criteria and constraints.
  - Students will solve mathematical challenges related to agricultural production.
  - Students will understand the importance of engineering in agricultural production.
Lesson Overview

- **Materials**
  - Chart paper or blackboard, with markers or chalk
  - Handout: The Planter Challenge
  - Green bean seeds
  - Materials that be used to create a simple machine

- Green Bean Background Information
Procedure

- You will be building a green bean planter that will mechanically drop 3 or more seeds onto a piece of masking tape.

- Simple machines:
Procedure

- Design parameters and performance parameters:
  - The seeds must be dropped by the machine
  - The seeds must be dropped in intervals
  - At least one simple machine must be employed
  - You may only use the materials provided to the class

- Brainstorm & Design
Procedure

- Build Prototype's in Small Group
- Demonstrations
- Evaluation and Reflection
From Start to Finish: Green Beans
Extensions

- Procedure (Part 2)
  - Share Videos of Commercial Green Bean Planters and Compare Differences
  - Gather Different Types of Green Bean Seeds and Classify by Color, Coating, Size, etc.
  - Have Students Determine the Cost of their Prototype
  - Green Bean Fact Sheet and Resources in From Start to Finish Student Workbook
Questions!