# Gourmet Gardens

## "Get Growing" Lesson Plan

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California Foundation for Agriculture in the Classroom

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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.

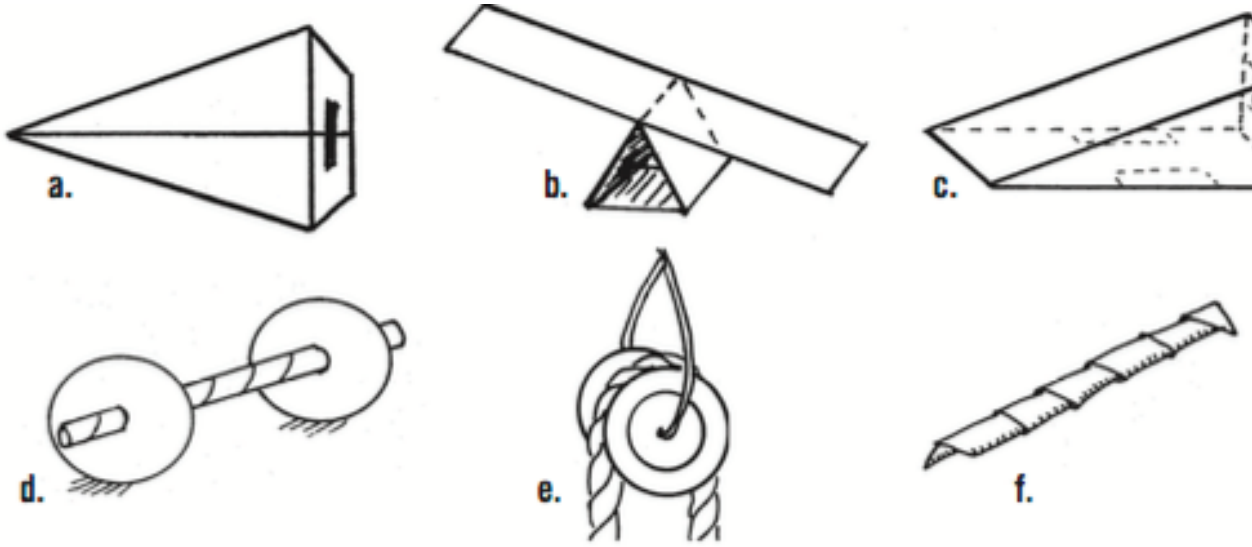
# Lesson Overview

- 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 Prototyoe
- Green Bean Fact Sheet and Resources in From Start to Finish Student Workbook

# Questions!