The term “food desert” is commonly used to refer to an urban area in which it is difficult to buy affordable or good-quality fresh food. Instead, these neighborhoods have a higher percentage of fast food restaurants and convenience stores (as opposed to grocery stores), which severely limits the dietary choices their residents have.

Urban vegetable gardening is one way for residents of a food desert to gain access to fresh, healthy foods. Your group’s task is to design a food garden system for an urban gardener. In particular, your group needs to design and build a movable food garden system for a small space (like an apartment patio). Given we live in a largely urban environment, space-efficient and easy to use structures like this are a must.

**Product #1: Mobile Garden**

Patio garden system that meets the following specifications:

* 1. Uses no more than $25 in materials to build. You can use as many free, re-purposed materials as you need.
  2. Minimizes water waste/spillage. Try to ensure the water going into the system is being used by the plants/soil, and not the concrete beneath.
  3. Allows for ease of mobility in case relocation of plants (or people) becomes necessary. Plants may need to be relocated based on various weather conditions or the sun/shade needs of each plant.
  4. Supports an organic system. This means garden pests and plant diseases are controlled without the use of chemicals.
  5. Fits in a small space, like an apartment patio, without dominating the patio space. People still need room to use the patio for outside seating. A typical apartment patio is 4 feet deep, 10 feet wide, and 8 feet tall. Take into consideration things like plant height, root depth, space needed to grow, and access to sun.
  6. Supports a minimum of 3 food producing plant varieties every season of the year. This excludes pest deterring plants like marigolds.
  7. Requires a minimal amount of time to upkeep. Urban farmers typically have a minimal amount of time to devote to maintaining this garden. Your system needs to address challenges related to watering and water filtration, weeding, fertilizing, soil replacement and retention, and planting.
  8. Takes into consideration the sun requirements for each plant. You can design a system to accommodate one type of sun requirement (full sun, partial sun, or shade), or you can choose to design a garden that can house plants with varying sun requirements AS LONG AS you allow for accommodations (i.e. a shade canopy, movement capabilities for certain plants, etc...).

**Product #2: User’s Guide**

A bradded folder with the following components:

1. An expository essay from each member of the group. This will be written in English class. This essay will serve as an introduction to the issue and your system. Your essay should address the following prompt: Explain why urban gardening is important.

b. Detailed description of your system and instructions for how to use it. This portion of the user’s guide should have the following components:

i. An overview of your design that includes the materials used, the selling points of your system, and step by step instructions of how to use your system.

Ii. A planting schedule that would suggest to the user when and where to plant the various varieties of plants for each season.

Iii. A dichotomous key to help the user identify the various plants you suggest. It is a common problem for novice gardeners to forget what they planted.

**Calendar**

Due Date for both the User’s Guide and the Mobile Garden

* B day Nov 17
* A day Nov 18

Work Days

* Oct 6/7: Introduce Project in English
* Oct 11/12: Annouce project groups in Biology
* Oct 11/12: Explore irrigation systems in Geometry and Algebra 1
* Oct 13: Prep for the Oct 19 work day during FIT
* Oct 19: All day work day with your project groups. You will not attend any regularly scheduled classes this day.
* TBD: 1 full period of work time with your group in Biology
* Sat Oct 29 Work Day at AHS with power tools, 8-12ish (optional)
* Nov 1/2 : Work time in World Geography to perform research/wrote the expository essay.
* Nov 4: Submit expository essay to Mr. Miller using turnitin.com (online submission) by midnight.
* Nov 11/14: 1 full period of work time with your group in Biology