



Tomatosphere Experimental Design

Group members and contact information:

Logistics:

- ☐ As a group decide how you are doing to conduct your experiment.
- ☐ Decide what vessel you are planting your seeds in, how you will get it, how often you will check, water, etc.

Questions to consider:

- ☐ Are you planting all seeds together?
- ☐ Are seeds begin exposed to the same amount of light?
- ☐ Will the seeds be in the same place for the duration of your study?
- ☐ How will you ensure proper care? (light, water, etc.)
- ☐ How will you delegate responsibilities?
- ☐ If you are splitting up your seeds, how can you ensure your variables are minimized?
- ☐ How and who will be collecting your daily data?
- ☐ How will you collect data on weekends? (yes experiments span weekends-they don't take breaks)

Planting prep:

1. Planting:

Describe the containment vessel you are planting in, why you chose this and your plan for obtaining said vessel.

2. Your seeds:

Describe *how* and *where* you will be planting your seeds. Remember you can plant in class, but must chose at least one additional location for your seedlings.

3. Light and water:

Describe your plan for illumination and water.



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4. Planting prep needs:

Identify what materials you need in order to begin your investigation.

Our investigation:

Your team will have to design a 30 day test to measure the germination of your seeds. You will be measuring/monitoring the following:

Daily:

- ☐ Temperature
- ☐ General appearance (healthy, wilted, spindly, limp, etc)
 - Be consistent in your language and descriptions!
- ☐ Condition of soil (dry, wet moist)

Weekly

- ☐ Height of plant
- ☐ Number of branches

Throughout:

- ☐ Watering
- ☐ Fertilizing
- ☐ Appearance of first flowers
- ☐ Number of flowers
- ☐ First appearance of fruit
- ☐ First mature fruit

1. What specific condition are you focusing your research on?
2. Construct a testable research question regarding your seeds and planting conditions:
3. We predict:



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4. Describe your plan for data collection:
 - a. Specifically state responsibilities and frequencies.
 - b. Create a description and key to EACH of your word descriptors to indicate how you define each plant. For example, Wilty: our description of a wilted leaf.
 5. Describe individual roles:
 6. How will you incorporate the data from the seeds planted in class?
 7. How will you report your findings?