

# Lab Report Template

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## 5.3.5- Optimal Growth Ranges

### Problem

Does watering radish plants every day, every other day, or every 3 days make the plant grow faster and with greater yields.

### Hypothesis

I predict that the radish plants that are watered everyday with grow faster and more successfully.

### Materials

- 16 radish seeds
- Growing area with full sunlight for a minimum of 6 hours a day- must be a min temp of 55
- 16 4 inch pots with potting soil
- Water source (must be the same for all plants)
- Vernier pH sensor

### Procedures

1. Obtain a water sample from your water source.
2. Using the Vernier pH sensor and chromebook test the pH level of the water. Record on Table 1
3. Obtain a sample of your potting soil.
4. Mix 4 scoops of soil and 100mL of water and stir for 1-2 minutes. Let settle for a minimum of 5 minutes.
5. Using the Vernier pH sensor and chromebook test the pH level of the soil. Record on Table 1
6. Plant 4 radish seeds in 4 inch pots. 1 seed per pot. Label these pots Control. Place those pots in your controlled growing area (minimum temp of 55 degrees Fahrenheit) and water each with 32oz of water.
7. Plant 4 radish seeds in 4 inch pots. 1 seed per pot. Label these pots Everyday. Place those pots in your controlled growing area and water each with 32oz of water.
8. Plant 4 radish seeds in 4 inch pots. 1 seed per pot. Label these pots Every Other Day. Place those pots in your controlled growing area and water each with 32oz of water.
9. Plant 4 radish seeds in 4 inch pots. 1 seed per pot. Label these pots Every 3 days. Place those pots in your controlled growing area and water each with 32oz of water.
10. This is day 1, after day 1 water each plant according to the following schedule:
  - a. Control- water each plant with 32oz of water everyday
  - b. Everyday- water each plant with 32oz of water everyday
  - c. Every Other Day- water each plant with 64oz of water every other day
  - d. Every 3 Days- water each plant with 96oz of water every 3 days.
11. Record your observations everyday on Table 2 for 20 days

# Data Collection

**Data Table 1**

	pH level
Water	
Soil	

**Data Table 2**

Day	Control		Everyday		Every Other Day		Every 3 Days	
	# growing	Avg Height	# growing	Avg Height	# growing	Avg Height	#growing g	Avg Height
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

## **Analysis of Results**

Explain the results and data collected. Be descriptive and complete in your discussion.

## **Conclusions**

Based on the results, what inferences can you make? Describe how your predictions were proven or disproven. What were possible sources of error? What questions arise based on your results?