Lab Tech Unit One:
Introduction to Lab Techniques Lab and Lab Report

Part I: You will conduct an inquiry lab and write a lab report as your lab practical/test for this unit. The class will be divided up into different lab groups

Title	Group members	Independent variable	Dependent Variable	Possible research topic
Effect of acid or base concentration on E. coli	Suzanna + Tamber Elaina + Anisa			How do the acidic and basic environments in the human gut affect E. coli?`
Effect of NaCl concentration on E. coli	Gabbie and Julie			What is the usual cause of E. coli in the ocean? What is osmosis and how does it affect bacterial cells in the ocean?
Effect of sugar concentration on E coli	Ray + Natalia			What does E.coli eat in the human gut? How does our diet affect our gut microbiome?
Effect of different growth media on E. coli	Kaylani Mei			What does E. coli eat? What are the different kinds of growth media used for different types of bacteria in lab settings?
Effect of different antibiotics on E.coli	Aaron and Jesse (First Choice)			How much of a problem is antibiotic antibiotic-resistant bacteria in

				medicine today? How can this be combatted?
Effect of Hydrogen Peroxide (H_20_2) concentration on E. Coli				What is the ideal concentration of hydrogen peroxide to kill off E. coli? How does hydrogen peroxide damage cells?
How does UV radiation affect E. coli?	Ananya + Shivani Jackson &christian			How does UV radiation affect living cells? How does sun damage affect living cells? Why is this important to humans?

What constants will you control during this test? List as many as you can think of:

How many trials will you run?

What is the practical question you hope to answer in this experiment?

What is your hypothesis?

How are you planning to run your experiment? What steps will you take to run your experiment? Write it so it is clear enough for others to understand how to duplicate your experiment from only your lab report.

What data will you collect? Design a data table below so that it includes both the independent and dependent variables, objective data with units, and subjective observations:

Design how you want your graph to be set up for your experiment so that the title includes the independent and dependent variables (it will be wordy-- that's ok) independent variable is on the x-axis, the dependent variable is on the y-axis, both axes are labeled, and the axes are divided up in even increments.

Part II: Write your rough draft of the beginning of your lab report