Mung Bean Lab

Materials:

• Volumetric	• Distilled water
• Weighing boat	• Balance
• Spatula	• Parafilm
• Table salt (sodium chloride)	• Petri dishes
• Paper towel	• Scissors
• 5 mL pipet – colour coded	• 10 mL pipet – colour coded
• 2 Small beakers	• Mung Beans
• 5 test tubes	• Test tube rack

Part 1: Making Soln

i) Make 50. mL of a 48 g/L soln from scratch

Math

Procedure (step by step how to make the soln)—bullets!

ii) Serial dilute the 48 g/L solution.

Test tube 1	Test tube 2	Test tube 3	Test tube 4	Test tube 5
24.0 g/L	**12.0 g/L**	**6.0 g/L**	**3.0 g/L**	**1.5 g/L**

Math $\mathbf{C_1V_1 = C_2V_2}$

C_1 is the original concentration

V_1 is the volume you are to use i.e. to pipet out of the original soln

C_2 is the diluted concentration

V_2 is the final volume you are making

Sketch **Math**

Procedure

Part 2:

Purpose

- to determine the concentration at which salt solns become toxic to Mung Beans

Variables:

Independent _____

Dependent _____

Controls

Procedure: Labeled Sketch

Questions

1. What are the genus and species of Mung beans?

_____ _____

2. What is meant by germination?

_____

3. What is a toxicity threshold?

_____

4. Determine the toxicity threshold of a salt soln on Mung bean germination:

_____

Back up your answer: _____

_____

5. What is an LD_{50}?

_____

6. Determine the LD_{50} for salt solutions on Mung bean germination: _____

Back up your answer: _____

_____