

Toxicity

Week of March 8

Mrs. Goe

Chemistry



Green Chemistry Assignment

- **Directions:** Use 2 pages typed to discuss what you learned about Green Chemistry at the MOS. (due Friday 3/12)
- Guiding Questions:
 - What does “Green Chemistry” mean? How does it relate to you?
 - Should Green Chemistry be practiced in schools or companies that make products you use?
 - What has Green Chemistry contributed to society?
 - What challenges do green chemists face?

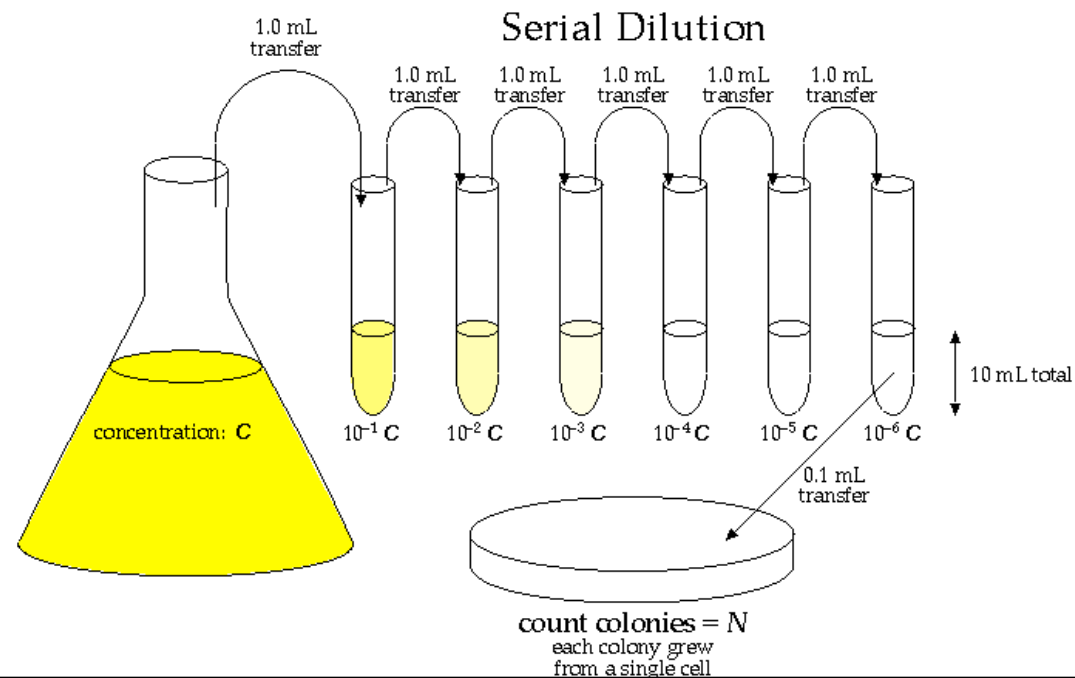
Lab Challenge

- Describe how you would take an 100% pure substance (liquid) and make a 10% solution?



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Lab # : Toxicity Study

- All winter de-icing trucks have traveled up and down our streets to deliver chemicals to stop snow and ice from adhering to them. But, what are these chemicals? What is the toxicity?
- How can we test the impact on the environment?



Lab # : Toxicity Study

- **Question:** How does the concentration of de-icing salts (MgCl_2 , CaCl_2 and NaCl) affect seed development?
- **Background:** Describe what you know about each of these compounds

Lab # : Toxicity Study

● Materials:

- 10ml--10% MgCl₂
- 10ml--10% CaCl₂
- 10ml--10% NaCl
- 10ml 10% Green De-Icer Mix
- 20-40 radish seeds
- 4--droppers, graduated 1ml or micropipetter
- 6--15ml test tubes
- Test tube rack
- 7 Petri dishes (15mm x 55mm) or One-12 well plate
- Permanent marker
- Filter paper
- Distilled water
- 1-plastic zip lock bag, gallon size

How will we make 5
different concentrations
from a 10 mL sample of
10% MgCl₂?

1%

0.1%

0.01%

0.001%

Position Paper

- State your position (thesis)
- Use your chemistry knowledge and scientific journal articles as evidence
- Address the validity of claims from the opposing viewpoint

Position Paper contd

- Topics
 - Are Cosmetics making us sick?
 - Air Quaility