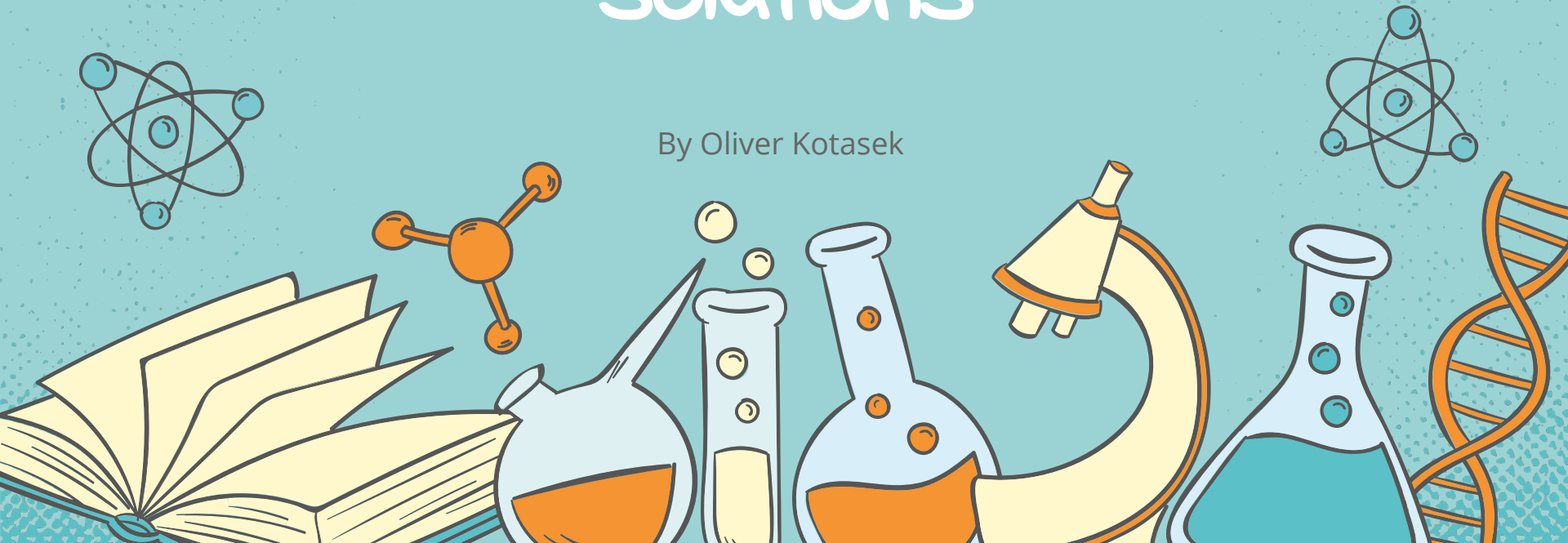
Why is it important to keep proper concentrations of solutions

By Oliver Kotasek



HYPOTHESIS:

The more concentration of salt the more the cell gets damaged.

Based on the concept of Molarity

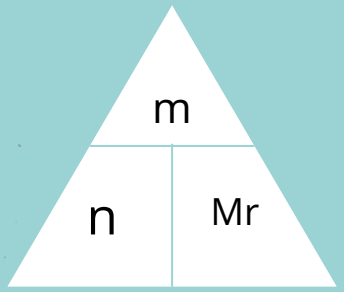
we are gonna test different solutions with different molarity of NaCl (1M, 2M, 3M, 4M, 5M) and then I'm gonna put it in different pieces of onion with iodine so that the sell difference is visible.

Molarity:

Is the amount of mol in one liter

$$M = \frac{n}{1L}$$

$$N = \frac{m}{Mr}$$



Experiment

1. Find the mass of : 1M, 2M, 3M, 4M, 5M, of NaCl
2. Preparation of solutions with different molarity
3. Prepare microscope and micro preparations of onion cells in solution with different Molarities
4. Compare of pictures and explanation

Solution preparation

steps:

1. Mr (NaCl) = 23+35.5= 58.5
2. 1n (NaCl) = 58.5 g|mol

Than we need to divide it by 40 because we will use 25 ml instead of 1L

1n (NaCl) = 58.5 x 1= 58.5÷40=1.46 g|mol

2n (NaCl) = 58.5 x 2= 117÷40=2.92 g|mol

3n (NaCl) = 58.5 x 3= 175.5÷40=4.38 g|mol

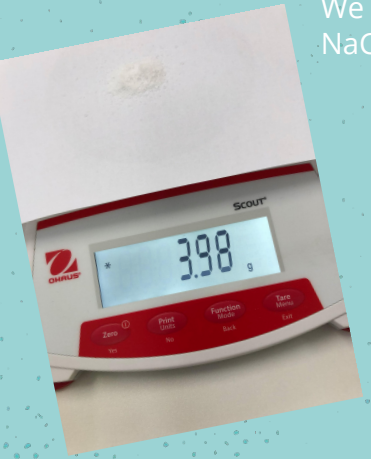
4n (NaCl) = 58.5 x 4= 234÷40=5.85 g|mol

2n (NaCl) = 58.5 x 5= 292.5÷40=7.31 g|mol

Solution preparation

steps:

We weight the proper mass of NaCl using balances

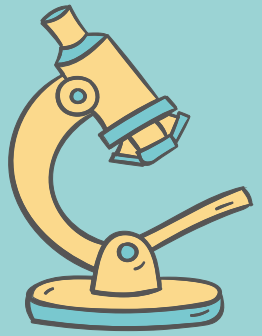


Paper also has mass so we add the mass of the paper and than we try to get the result for n1+2.52=3.98

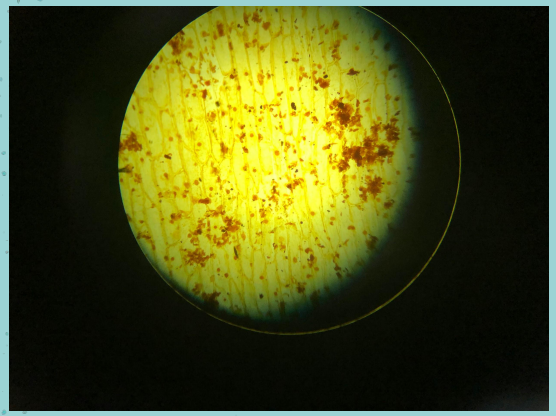
So now we added the salt to the 25 ml of water and mix it

Preparation of Microscope

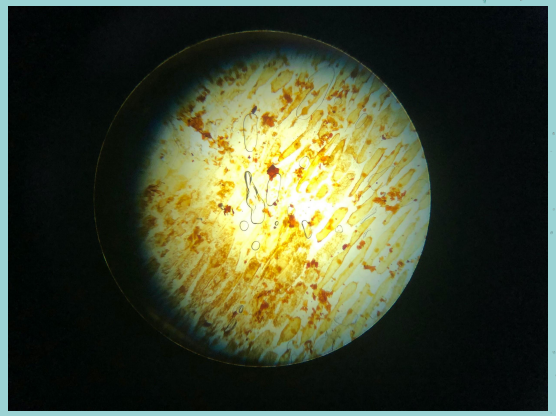
and preparation of micropreporations of onion cells in different molarity solution



Results



This is the one with clear water

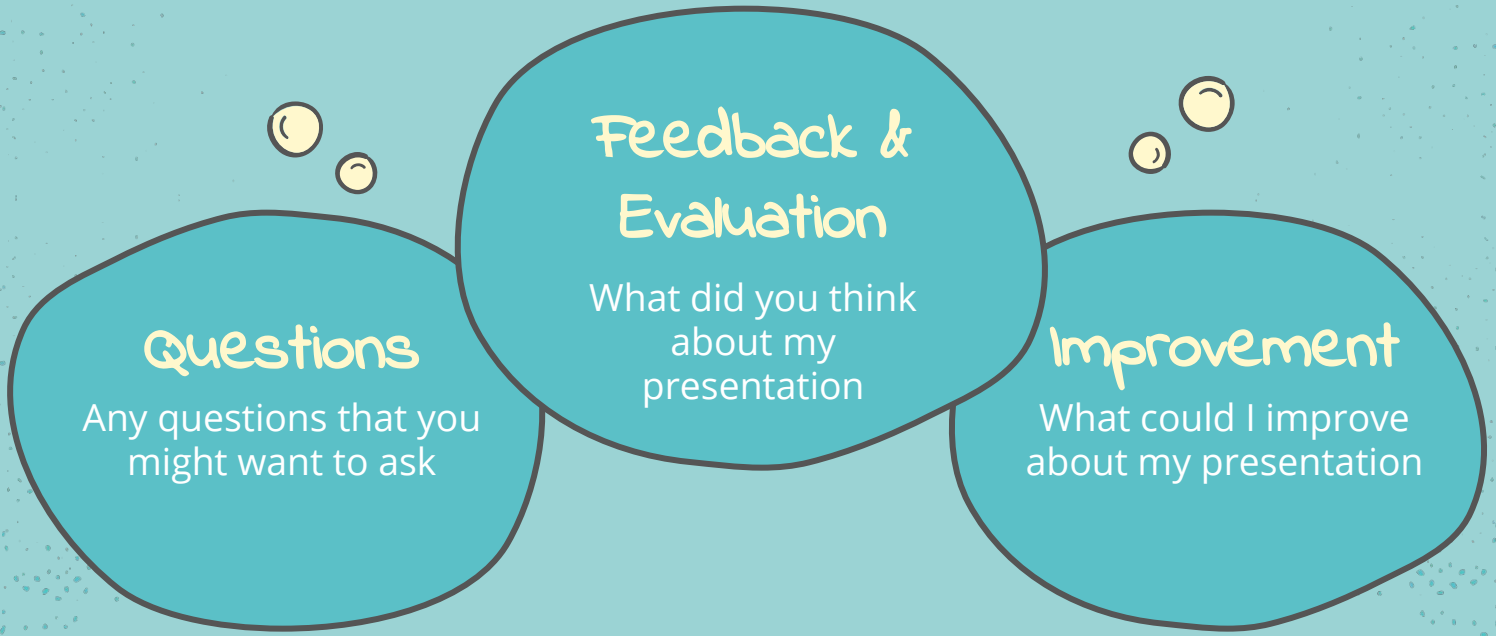


This one is with water mixed with 1M of salt

I wasn't given the material that I asked my classmates for so I can't show the difference by higher concentration of salt so I will have to show the difference by concentration of water with salt and with clear water

According to our research our hypothesis was confirmed

Tell me...


Feedback & Evaluation
What did you think about my presentation
Questions
Any questions that you might want to ask
Improvement
What could I improve about my presentation


Thanks!