Osnovna Škola Jabukovac Zagreb

Liceo Scientifico Corbino Siracusa

2°E Liceo Scientifico Corbino

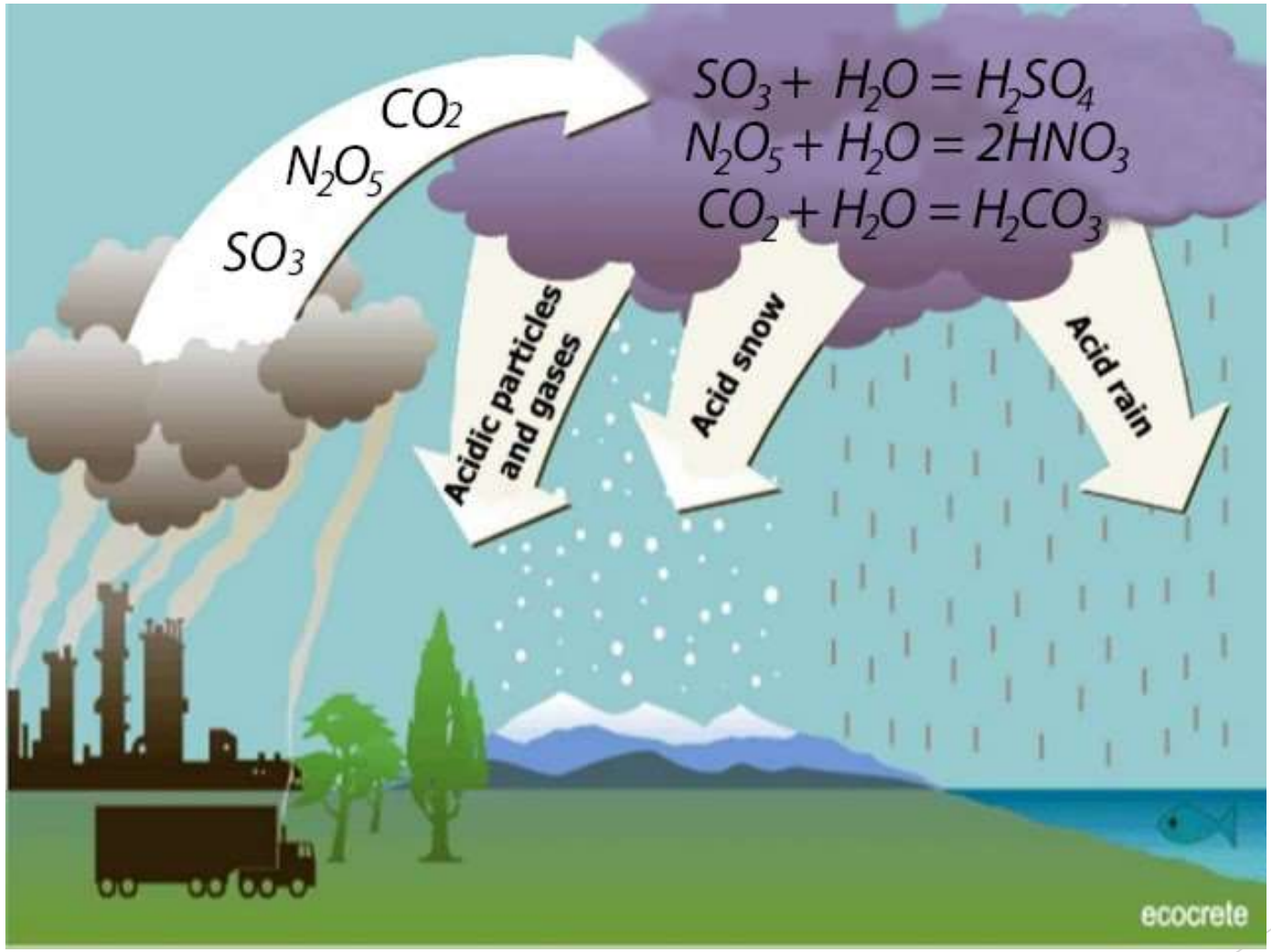


This is what we did to ‘’Think and Study Green’’…



WE SIMULATED THE EFFECT OF ACID RAIN ON PLANTS

Acid rain formation



What we did in the science laboratory:

We tested the effect of acid rain on BEANS





What we did in the science laboratory:

We tested the effect of acid rain on GERANIUM PLANTS



What we did in the science laboratory:

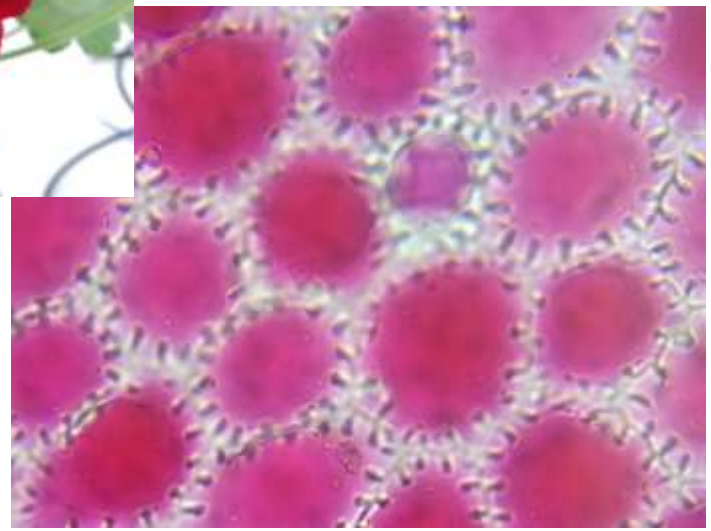
We tested the effect of acid rain on GERANIUM PLANTS WITH FLOWERS



What we did in the science laboratory:

We tested the effect of acid rain on GERANIUM PLANT PETALS







How we prepared the solutions

We prepared three bottles:

1. One containing tap water
2. One containing 475 ml of tap water and 25 ml of vinegar
3. One containing 400 ml of tap water and 100 ml of vinegar

We checked the pH of the three solutions







What we did day by day from day 0 to day 20

We placed the seeds in a dark place and we kept them moist.

We put the plants next to each other, so they could get the same amount of sunlight.





What we did day by day from day 0 to day 20

We watered and sprayed our samples every two days using the proper solution, each time.

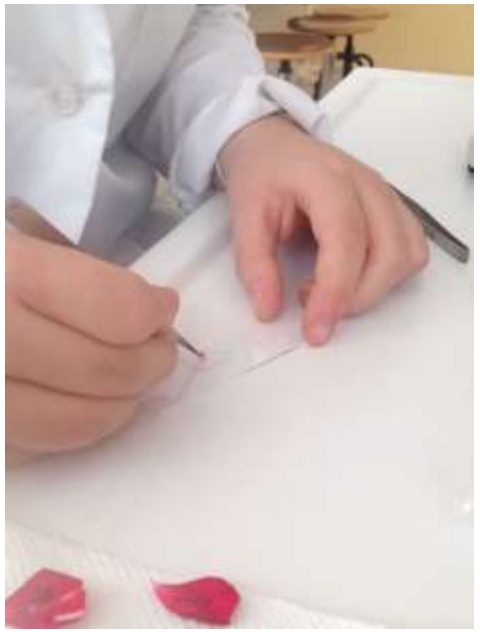




What we did day by day from day 0 to day 20

We prepared some slides using geranium petals and we examined them using the light microscope







What we did day by day from day 0 to day 20

Day by day, we wrote down in a table our data:

-height
-changes in color
-general aspect





Experiment 1

The effect of acid rain on seed germination



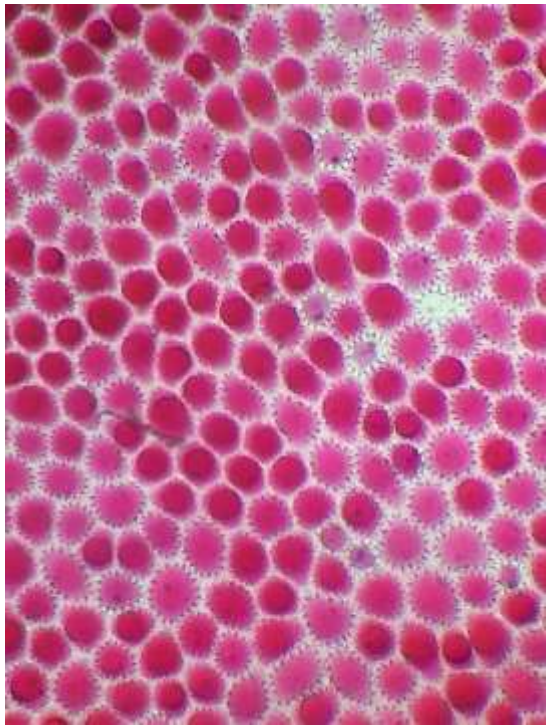
Experiment 2

The effect of acid rain on flowers and geranium plants



WHAT WE SAW ON THE MICROSCOPE

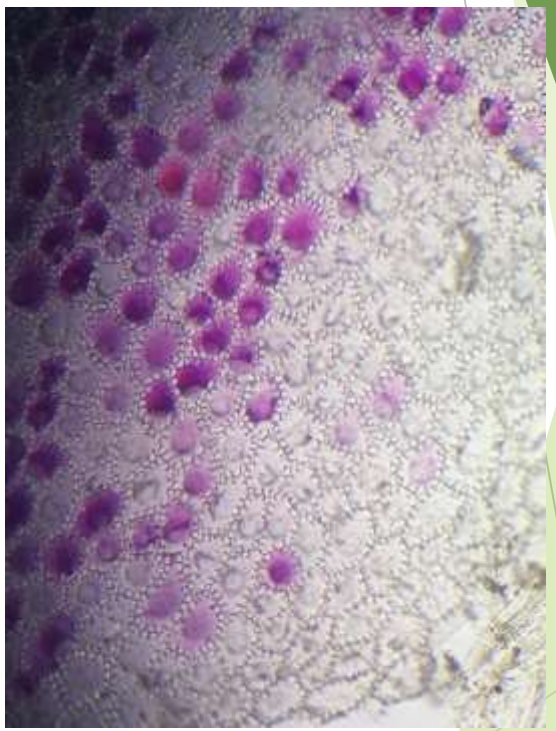
PLANT NO.3: A LOT OF ACID



DAY 0



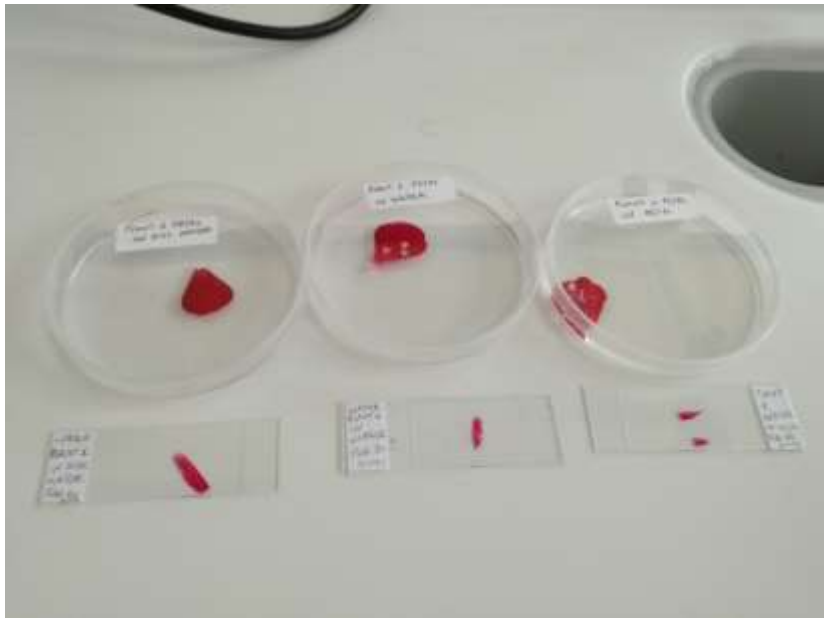
DAY 10



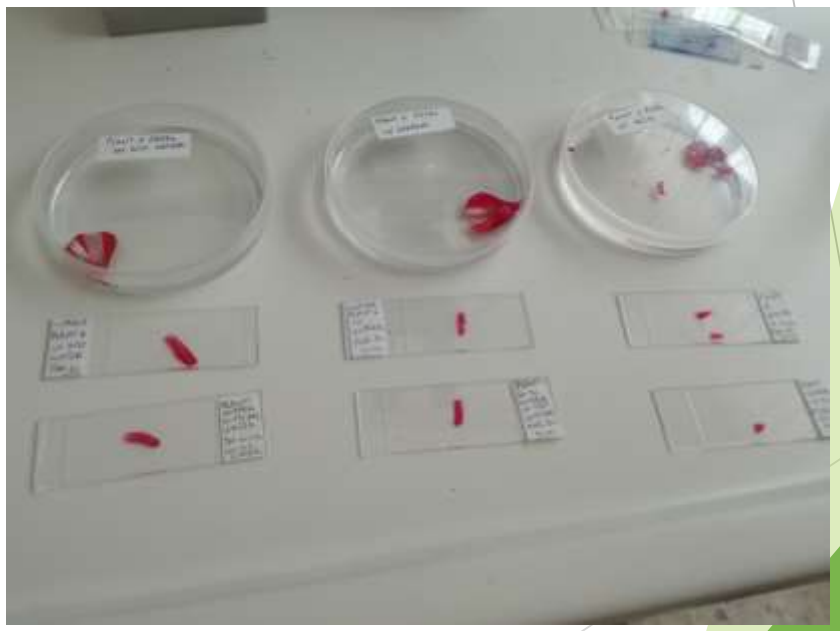
DAY 20

EXPERIMENT 4: PLANT NO. 1 PETALS SOAKED IN DIFFERENT SOLUTIONS

- SLIDE NO. 1: PETAL IN DISTILLED WATER
- SLIDE NO. 2 :PETAL IN TAP WATER
- SLIDE NO. 3 :PETAL IN ACID

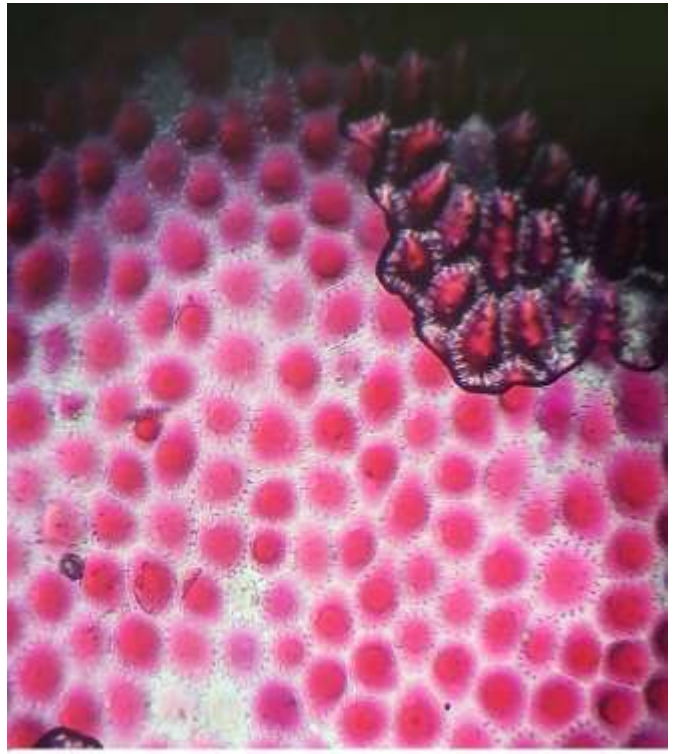


SOAKED FOR 15 MINUTES



SOAKED FOR 30 MINUTES

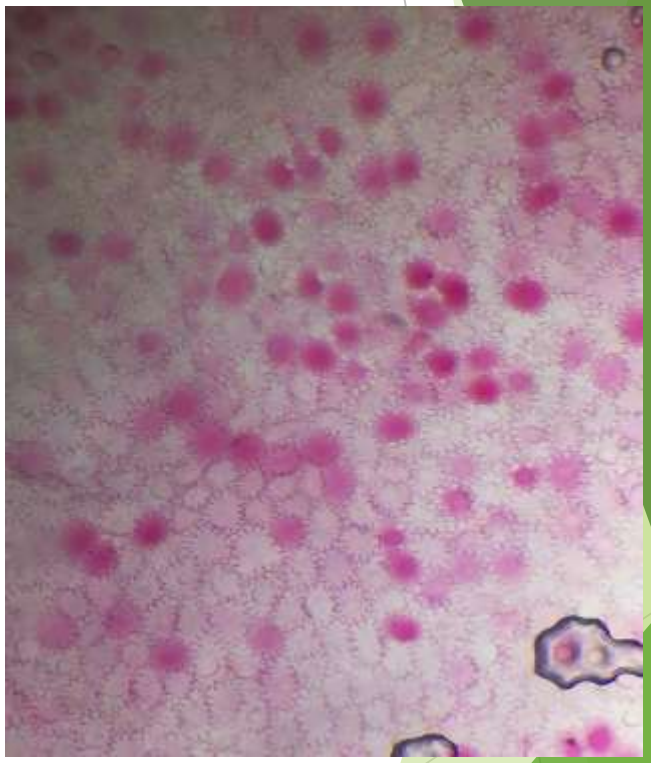
WHAT WE SAW AFTER 30 MINUTES:



TAP WATER



DISTILLED WATER



ACID

Geraneum plant without flowers N°1 : tap water

Time (days)	Leaf color or general aspect	Plant height (cm)	Plant general aspect (sick/healthy)	Other characteristic
0	Green	5 cm	Healthy	
5	Bright green	5.5 cm	Healthy	
10	Green	6 cm	Healthy	
15	Bright green	6 cm	Healthy	Blossom
20	Green	5.5 cm	Healthy	

Geraneum plant without flowers N°2 : a little acid

Time (days)	Leaf color or general aspect	Plant height (cm)	Plant general aspect (sick/healthy)	Other characteristic
0	Green	5.5 cm	Healthy	
5	Dark green	6 cm	Healthy	
10	Dark green	6.5 cm	Quite healthy	One leaf yellow
15	Dark green	5.4 cm	Sick	One leaf brown
20	Dark green	4.5 cm	Dead	Some leaves dead

Geraneum plant without flowers N°3: a lot of acid

Time (days)	Leaf color or general aspect	Plant height (cm)	Plant general aspect (sick/healthy)	Other characteristic
0	Green	5.5 cm	Healthy	
5	Bright green	5.5 cm	Quite healthy	Some leaves yellow
10	Dark green	6.5 cm	Sick	
15	Brown	4 cm	Sick	Only one yellow leaf
20	Dark	2.5 cm	Dead	

Geraneum plants with flowers N°1: tap water

Time (days)	Leaf color	Petal color	Plant height (cm)	Plant general aspect (sick/healthy)
0	Green	Light red	6 cm	Healthy
5	Green	Light red	6.5 cm	Healthy
10	Green	Red	8 cm	Healthy
15	Green	Red	10.5 cm	Healthy
20	Green	Dark red	13 cm	Healthy

Geraneum plants with flowers N°2: a little acid

Time (days)	Leaf color	Petal color	Plant height (cm)	Plant general aspect (sick/healthy)
0	Green	Light red	5.5 cm	Healthy
5	Green	Light red	7.5 cm	Healthy
10	Green	Red	8 cm	Healthy
15	Green	Red	10 cm	Healthy
20	Green	Dark red	12 cm	Quite healthy

Geraneum plants with flowers N°3: a lot of acid

Time (days)	Leaf color	Petal color	Plant height (cm)	Plant general aspect (sick/healthy)
0	Green	Light red	6 cm	Healthy
5	Green	Red	7 cm	Healthy
10	Dark green	Red	8 cm	Quite healthy
15	Light yellow	Black red	9.5 cm	Sick
20	Light brown	Black red	11.5 cm	Dead