

Science Fair Logbook

Name: Linta & Navreet
Homeroom: 5-5





Topic:

Write about the topic you chose. Why did you choose this topic? What do you hope to find out?

Me and my partner chose “does the type of soil affect a plants growth?”. We chose it because if we want to grow a plant then we would know which soil to use for our plant. We hope to find out which soil will make a plant grow taller.



Testable Question

Does the type of soil affect a plants growth??

Does the soil type of affect the plants growth??

Background Information

Research your topic and write about what you find out IN YOUR OWN WORDS. Add slides as necessary. Make sure to note your sources of information on the Sources page.

Give it some sunlight and water. Keep the plants in a safe place and that they don't get eaten or get dried. If you put soft music like lullabies the plant will grow in the direction of the music. If you put loud or intense music the plant will die.





Background Information

Research your topic and write about what you find out IN YOUR OWN WORDS. Add slides as necessary. Make sure to note your sources of information on the Sources page.

The easy plants aren't always easy. Have a watering schedule on a daily basis. Check for soil dryness once in a couple of days.



Sources of Information

Note all sources used - websites, books, experts, etc. (*Google is not a website, follow links to find the page information.) Add slides as needed.

Title	Author	Information (web link, publisher, etc)	Year
Rooted Revival	Kaylee Vaughn	https://rootedrevival.com/six-things-before-planting-your-first-garden/	2024
Simply scapes	unknown	https://www.simplyscapes.com/blog/10-things-you-should-know-before-you-plant-anything	2024



Variables

Manipulated / Dependent Variable

ONE thing that you will test/change:

Which soil will make the plant grow taller.

Responding / Independent Variable

The thing we think will change or be affected

The height will affect the plants growth

How will you measure it? :

We will measure the height of the plant with a ruler



Variables

Controlled Variables

Things we have to be very careful to keep the same every time we test so that they do not affect the results/outcome of the experiment:

- We watered the same amount for each plant and put it in the same environment. The seed and pot will stay the same.



Materials

What materials will you use for your experiment? Be specific about amounts whenever possible.

- Seeds
- Pots {2}
- Mineral , and non mineral soil
- Tape



Hypothesis

Your prediction, or what you think will happen:

If we put mineral soil then we think the plant will grow taller because the soil has minerals.

(I do/change this...)

(I think this will happen)

(Why?)

*use info from your research or background knowledge to help explain)



Procedure

List the step-by-step procedure you will follow to conduct your experiment. Be as specific as possible and include exact measurements, quantities, times, etc.

1. We will pour the 2 different soils into each pot and put the seed in
2. Then we will put the pots next to a window so it can get sunlight and water it everyday
3. Every day we will check on the plants and see if they are growing or dried out
4. After 1 month we will measure which plant grew the tallest

We will measure the plant every week by cm



Experiment: Trial 1

Date:

Data: (measurements)

Time	Height In Cm
Week 1	1 cm
Week 2	2 cm
Week 3	3 cm
Week 4	4 cm
Week 5	5 cm

Observations:/Notes

We used mineral soil and planted methi(indian plant). There are some seedlings and plants growing on the edge. There is dirt on some of the tips of the plants.



Experiment: Trial 1

Photos:

Mineral soil

Plant: methi(indian plant)





Experiment: Trial 2

Date:

Data: (measurements)

Time	Height in cm
Week 1	1cm
Week 2	1.5cm
Week 3	2cm
Week 4	3cm
Week 5	4cm

Observations/Notes:

We did non mineral soil and we grew methi(indian plant). There is lots of plants and seedlings. There is a little bit more plants then trail 1. Some of the plants have brown tips.



Experiment: Trial 2

Photos:

Non mineral
Plant: methi(indian
plant)





Experiment: Trial 3

Date:

Data: (measurements)

Observations/Notes:



Experiment: Trial 3

Photos:



Results: Chart

Put your data together into a chart.

Example: (you can change the chart)

	Height in cm	Time	
Trial 1	5cm	1 month and 6 days	
Trial 2	4cm	1 month and 6 days	
Trial 3			



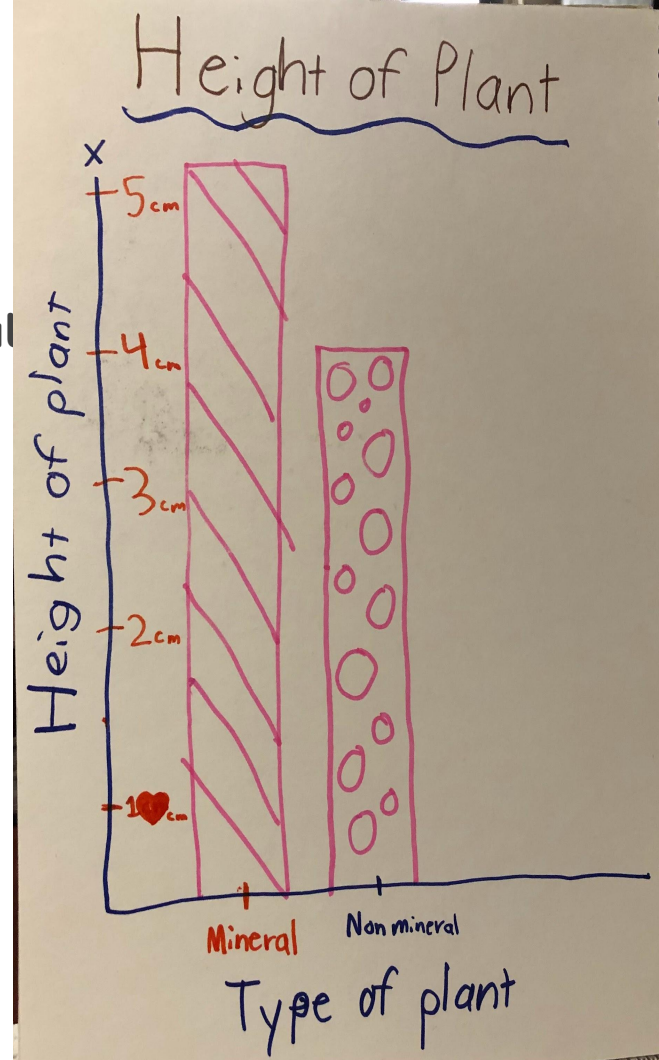
Results: Analyze

Look at your data and observations. Look for patterns and trends. Explain what happened in your experiment and what you found out:

We noticed that the plants were growing 1 cm every week, but for trial 2, week 2 the plant grew half a cm. They grew perfectly without sunlight most of the time. We found out mineral soil is the best soil to grow crops and plants.

Results: Graph

Graph your data for a visual display of your results



Conclusion

Our question was : Does the type of soil affect a plant's growth

The answer to our question is: Yes, it does. The mineral one grew taller because it had nutrients and minerals.

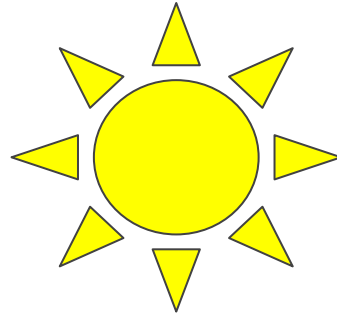
Our hypothesis was correct because: It grew taller and healthier and it was mineral soil, so the plant has minerals and nutrients.



Applications

In what ways are your findings useful?
Who could benefit from your results and how?

They are useful for growing crops and food faster. And for making money faster.



Sunny Day Vibes





Sources of Error

Do you think your results were reliable? Were there any other factors or conditions that could have affected the results of your experiment in unexpected ways?
What could have affected your results, that would need to be controlled differently if you were to repeat the experiment?

Yes. We could have done 3 trials and plant nine plants. And we would have taken more notes and bought more soil for trial 3. We won't do this mistake again next year.



Extensions

If you were to conduct this experiment again, what would you do differently?

We would do 3 trials and plant 9 plants. And let the plants grow a little bit longer. And get more soil for trail 3.

Extensions

Because of the results of this experiment, I wonder...

Describe further experiments that could be conducted to further investigate and understand your topic:

We would get a soil testing kit and analyze different types of soil.





CONGRATULATIONS!!

You have completed your experiment!

Make sure that you enter information from this logbook into the CYSF Digital platform.

You are now ready to create your tri fold display and practice your presentation.

