Science fair logbook 2024/25

Kuto. ✝

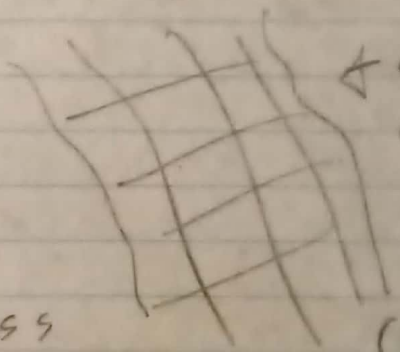
Sept 9 Ideas

- yeast / baking
- AI < designs
- plant minerals needed < fertilizers removing I to see growth
- Ph for rivers/lakes around calgary
- soil erosion < types prevention
- filtration < Ph dust

BGR Sept 11 ~ Sept 23

probably water, maybe easy?

- topmost layer of soil is carried away due to stuff like wind, water, Glacier
  - wind/water = bits of sand or soil
  - Glaciers = slow, but big boulders
  - Ex: okotoks big rock, sand sahara → Amazon grand canyon (colorado) New brunswick sea stacks
- 3 types of soil erosion (small → big)
  - splash
  - sheet
  - rill



Prevention

Planting etvce, grass

Mulching → pebbles/wood chip (I put citations in docs)

Geo-textile mat → fabric with Zt

cement wall → I saw it in) apam (probably too hard to experiment with actual cement)

Terrace farming → like steps/stairs

Can destroy a lot
↳ land for us
↳ habitats

9/25 real

Hypothesis

If these methods of preventing soil erosion are tested (planting, Mulching, GeoTextile mats...), then the cement (not real cement) will be most efficient because no water will seep in.

Predictions

#1 cement → just run down
#2 planting → probably won't change much from control

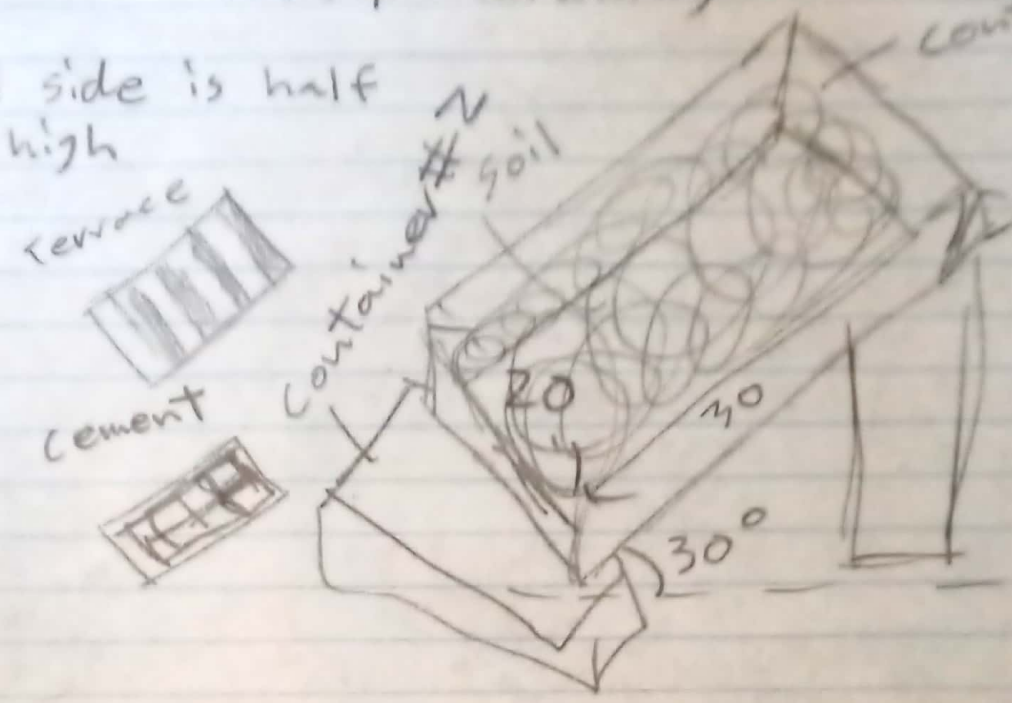
#3 terrace farming → because layers, it might produce more erosion.

#4 Mulching
#5 Geo textile → just cloth...

Control - just dirt
manipulative - the method
respond - amount of soil weighed
controlled - temp, amount of soil & water, angle, elevation

9/27

set up thinking



Need to get

- filter
- container 1 & 2
- styro foam
- mulching (maybe just pine needles)
- Grass seed

~~9/27~~ 9/30 ~ 11/20

WORK on R.S & ETC

Mulching in pine needle

Winter break Record

	t.1	t.2	t.3	t.4	t.5
Pl.	6	8	5	6	5
Mu.	8	7	9	11	10
GE.	4	3	4	5	5
St.	6	8	9	4	9
Te.	4	4	3	3	4
Co.	54	31	47	38	28

All measurements in Grams.

my hands are so cold...

- SW. & carried under sheets
- Ge. deflect most water
& 3d trial started to seep in

- te. slowed down water, most got absorbed
- mulching & also slow, not as much
- PI water went around plants
-

Conclusion

- Geotextile & terrace is best
- hypothesis is incorrect
- S.W was second worst
- all methods drastically improved amount of soil eroded
- might of been better if the experiment was indoors, so cold

S.E

- cold & water may of froze
- amount of soil / water may of been slightly different.
- temp. may of changed.
- since needles were counted in mulching a bit more than without it.

I forgot Analysis and just did it on a docs : it is on the third
av PI - av6 ms 1st av 3.6 m 6 M av 4
GMAV 9.2 m 4.5 st av 2.8 u