



Plant Needs Lab

Purpose:

Will plants grow with one of their basic needs (air, sunlight, water, soil) taken away?

Hypothesis:

I think the seed planted with _____ will grow best because _____

Materials:

5 quart sized root pouches
Soil³ Humus Compost
Water
Seeds (enough of the same kind for all 4 pouches)
Gallon-sized Ziploc bag
Play sand
Large Shoe box
Black sharpie marker
Plastic spoon

**Seeds that
are easy to
grow:**

Tomato
Marigold
Sunflower
Pumpkin
Watermelon
Zinnia

WARNING!!!

Morning
Glory seeds
are
poisonous,
and Foxglove
seeds are
toxic.

Procedures:

1. Fill 4 root pouches half way with soil. Label the pouches A, B, C, and D with the marker.
2. Fill 1 root pouch half way with play sand. Label the pouch E with the marker.
3. Put one seed in each pouch and push it about an inch into the soil.
4. Put 5 spoonful of water into pouch A, B, C, and E.
5. Place Pouch B in a large shoe box.
6. Place Pouch C in a gallon-sized Ziploc bag.
7. Place Pouch A, C, D, and E in a sunny spot (like a window sill).
8. Complete the Planting Matrix to record the basic needs of each seed. Write "yes" or "no" to indicate whether each basic need was met.

Needs Matrix

Pouch	Air	Sunlight	Water	Soil
A				
B				
C				
D				
E				

Results:

Observation Day 1:

Pouch A	Pouch B	Pouch C	Pouch D	Pouch E

Observation Day _____:

Pouch A	Pouch B	Pouch C	Pouch D	Pouch E

Observation Day _____:

Pouch A	Pouch B	Pouch C	Pouch D	Pouch E

Observation Day _____:

Pouch A	Pouch B	Pouch C	Pouch D	Pouch E

Observation Day _____:

Pouch A	Pouch B	Pouch C	Pouch D	Pouch E

Conclusion:

My hypothesis was/ was not supported because

Future Studies:

What further investigations would you recommend based on your results?