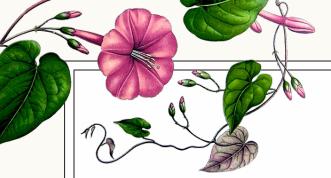
Our Biosphere. "Can life survive in a bubble"

Aim & Hypotheses.

To see if life (plants) can survive in a bubble outside of earth, this study will give us the information we need to possibly get life forms out to space or more specifically Mars. We predict that our plants with flourish with having to create its own air and practically looking after it self but with this i feel like if provoked it will die very easily, and stay that way.



Method

1: add all layers to your biosfere that will include (rocks,charcoal,sand,potting mix,plant life and our plant seed.)

2: add a cling wrap barrier to the top half of your biosphere (this will make the container a more bubble like thing)

3: observe the happenings to your plant life (see if it can survive without all the things earth provides) 4:Remove cling wrap and water regularly 5:Look out for discoloration in the plants leaves as it may represent illness in the plant.

6:Make sure to take pictures weekly for your jurnal.



First week.

This is my first day of being planted and nothing has really happened, but i am starting to form a little amount of condensation.Can't find my sister seed but she will turn up sooner than later.Later though the week i hope to start growing!



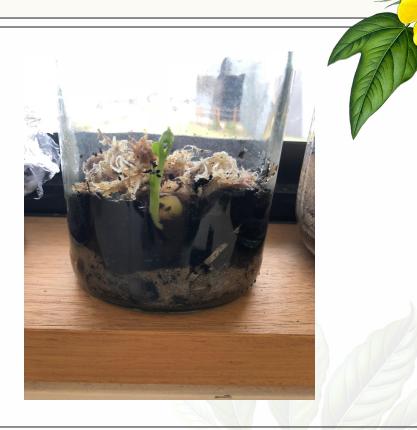


Second week.

It is the second week of me being planted and only one has started to sprout, me. our cover is still on and we have a massive build up on condensation.i seem look very healthy and there is no cover of the actual seed. There is also a tiny leave starting to form and the top of my head witch is very cute.

Third week.

Third week alive and i am growing well if you look at this picture you can see my two leaves someone called them my crown.My roots aren't visible and my sister is still unfound but that's ok. My seed has grown an extra 3 cm and risen up wards and my steam is a big 9 cm including my leaves.





Fourth week.

I have finally been set free from my "bubble" and are able to breath, i still havent been water since i was planted though but i am still growing each week and i am now 14 cm with almost 6 leaves. Some of my roots are able to see now and they are all going in the right diresting (down).

Fifth week.

This is then end of my fitch week and are now around 20 cm and have three pea shoots and nine leaves so far. I was also watered at the start of this week and it has done wonders for my growth but there is still a lot of liquid that hasn't gone down all the way to the last layer of my home.





Sixth week

My sixth and last week on this project and i have grown and extra limb and have a total of 17 leaves and 5 pea shoots. I have been watered every second day and have started to get and illness on my leaves and many have shriveled up and died.



Photosynthesis

Photosynthesis is where the sun carbon dioxide and water to create glucose and oxygen for the plants food. If there is no sun there is no photosynthesis and the plant will die.

Photosynthesis 6CO₂ + 6H₂O $C_6H_{12}O_6 + 6O_2$ glucose carbon water dioxide

oxygen

Conclusion

Throughout the six weeks we went through three stages of our plant growing. First was not adding water and the plant selad it watered itself with condensation. Secondly was talking the lid of and not watering the plant so it died. The last stage was keeping the lid of and watering the plant everyday. Our plant grew best when it was self watering with condensation and the plant was sealed. The biosphere is the most efficient way to grow a plant.





Question from identify and describe.

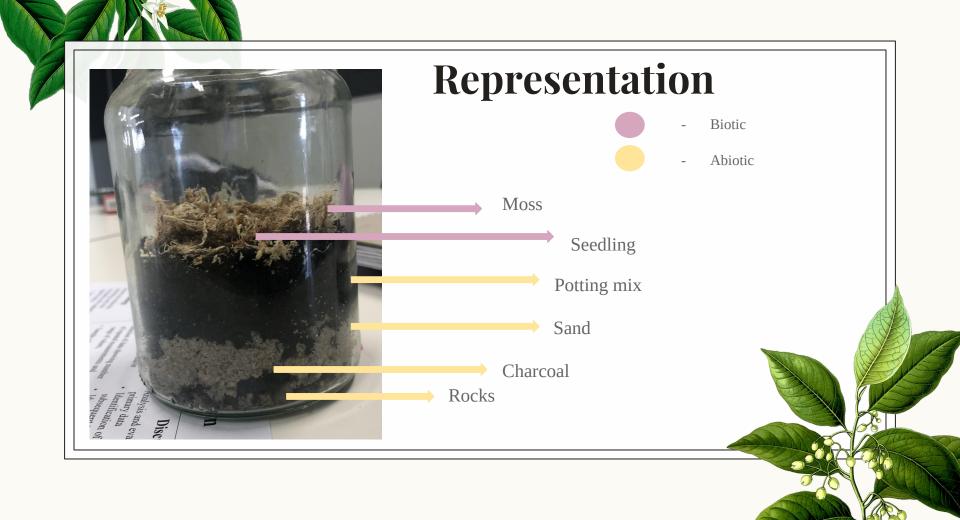


Identify.

The nonliving things in an ecosystem are known as abiotic factors. The living things are biotic factors. All living things depend on nonliving things such as water, minerals, sunlight and air, to survive. **Abiotic:**the non living things in my terrarium are water,rocks,charcoal,potting mix, sunlight,air,sand and the overall jar.

Biotic factors:the living things in the biosphere are the over all plant and the moss surrounding the plant.





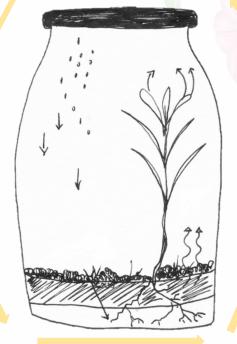
Describe.

1. How do key elements in your terrarium interact or support each other. For example how can a rock support any insects in the Biome. All layers of the terrarium help support the plant as they will filter the water heading to the plants roots making it cleaner for it to consume.Rocks will help the plants roots to access water with more ability this can also be helped by having potting mix as it gives the plant nuteriance

Water cycle.

2. Use a representation to illustrate the water cycle in your Biome

Condensation. The water condenses on the jar and in the air falls to the soil.



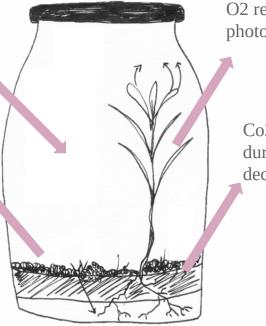
Transpiration. The roots of the moss and plant draw up the water and release it through the leaves back into the air.

Evaporation. Some water will evaporate from the soil into the air

Gas cycle.

3.Use a representation to illustrate the gas cycle in your Biome. Co2 absorbed during photosynthesis.

Co2 released during insect/bacteria respiration.



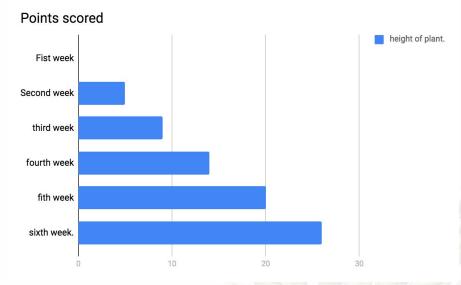
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Collect Information.

6. Measure your plants growth over Week 5-7 at regular intervals. Create a Growth Rate graph (line graph) that compares Height over Time. Describe any trends.

As you can see from the graph to the right the height of my plant has increased rapidly over the sixth week since planted ,there seems to be no pattern in the growth rate.



Explain.

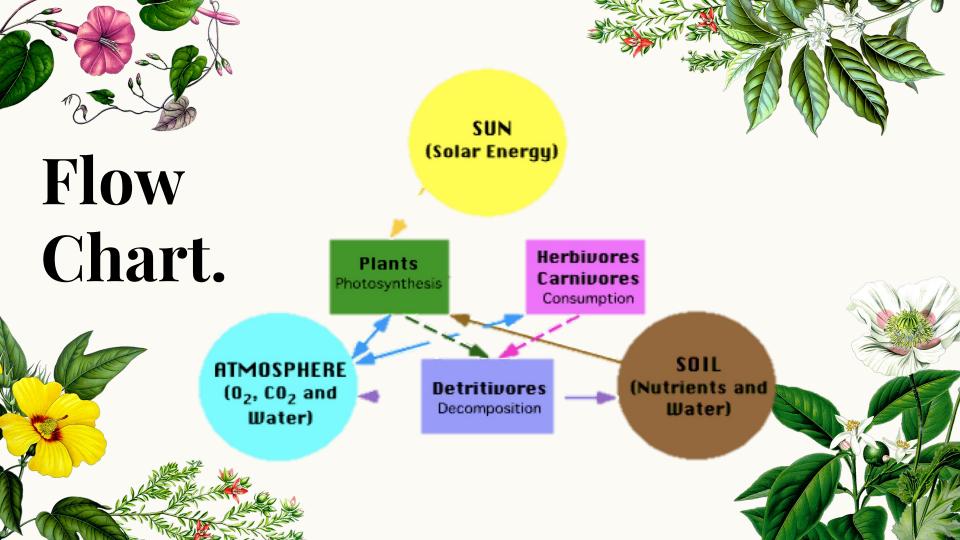
7. Explain what the graph is showing us in terms of the plants growth rate. Is it constant or were there spurts in its growth. Can you explain these rapid growth moments?

There were moments of a massive growth rate for example when my plant jumped from 0cm to 5cm other than that the growth rate continued to grow quite normally in ways i am actually quite proud of.i think the reasoning for this would be that after a while i watered it and the plant obviously reacted to it in ways of growth. 8. What are the functions of microbes and plants and other elements in your Biome. Briefly explain how each one provides a vital function to the ecology of your ecosystem?



Hypothesis.

9. What would happen if a Secondary Consumer were introduced to your TERRARIUM such as a caterpillar.
Include a prediction on how this may affect the survival of all elements in your ecosystem. What could be the long-term outcome if this Introduced Species was allowed to consume whatever it wanted.
Use a flow chart to visualize what might be the final outcome for the ecosystem. My prediction if a secondary consumer such as a caterpillar or other small animal that are small and herbivores is that the animal would consume the plant till it died, resulting in the animals death as there would be no nutrients and or air (filtered through the plant and brought into the biodome). But if the creature was able to consume whatever it needed it would probably thrive and keep the fauna to the level it needed to be at.







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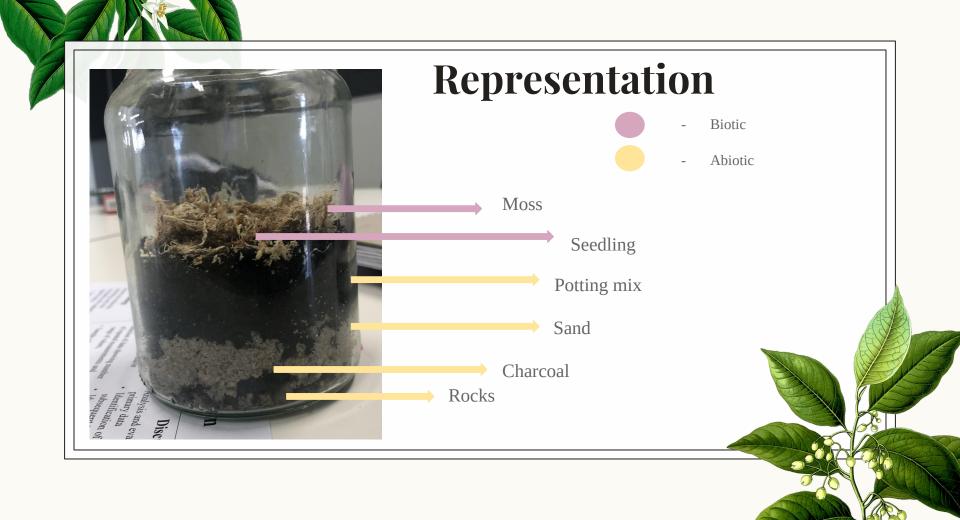


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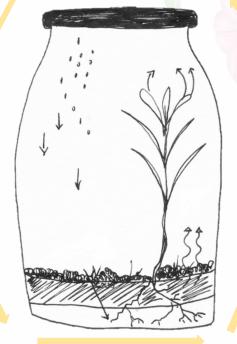
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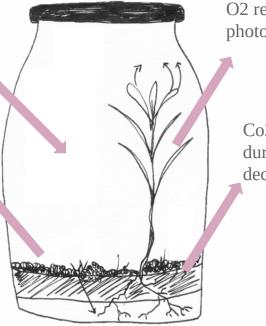
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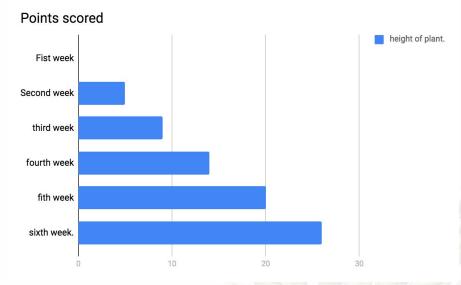
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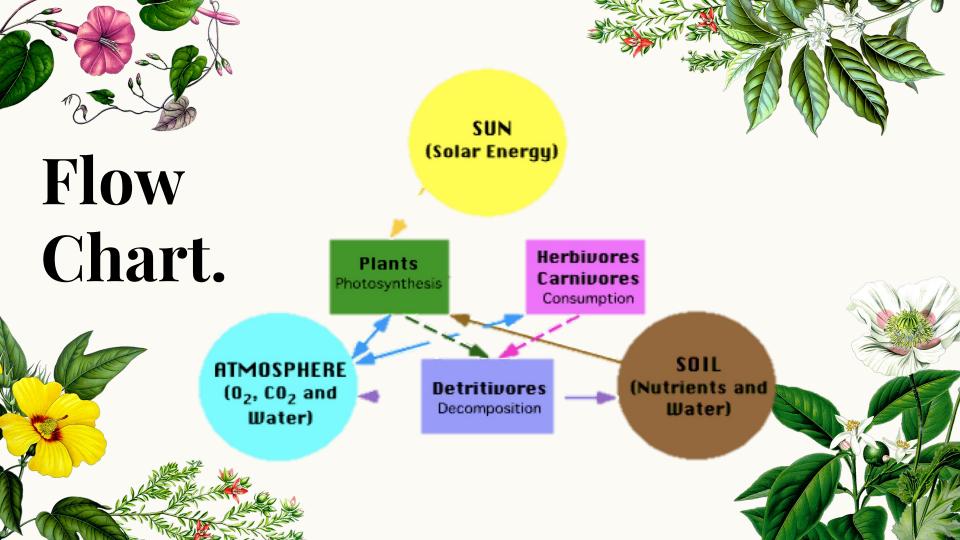
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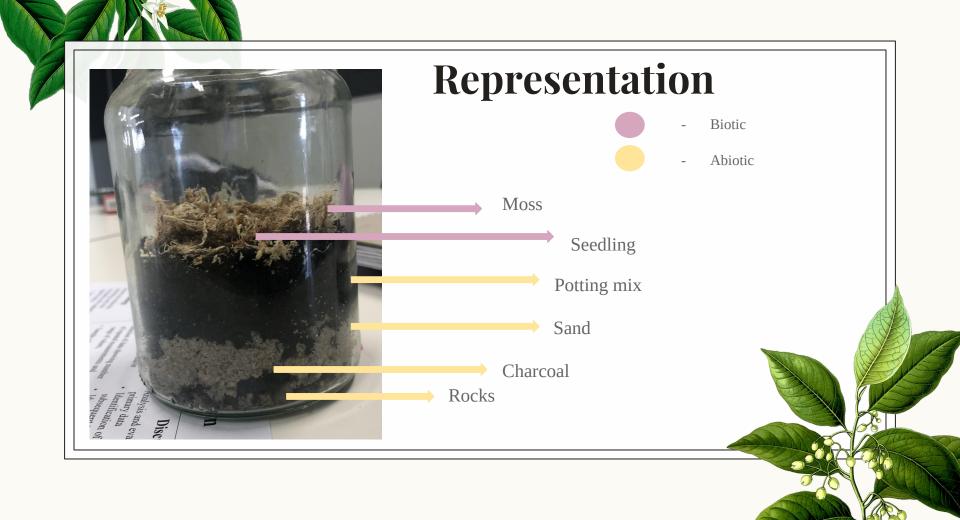


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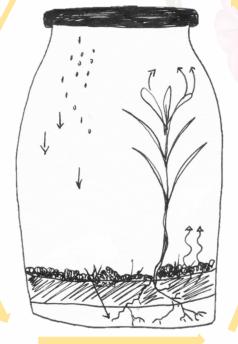
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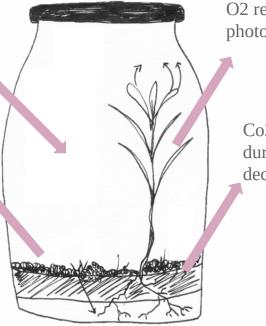
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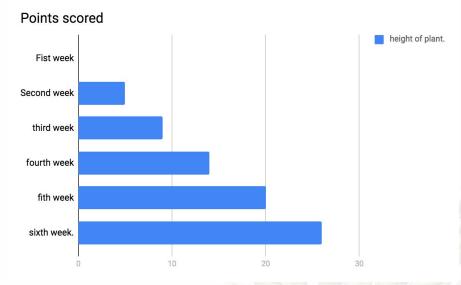
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Microbes is a microorganisms that causes disease for fermentation. In microbes there microorganism,bacillus, bacterium and virus



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