



# Microclimate Study

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A Block

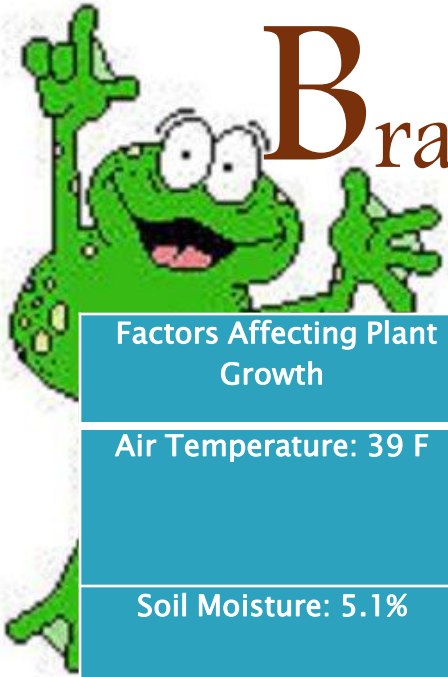


**P**urpose: To compare different types of plants that live under Hardwood trees such as Hemlock and Oak Trees. Do the factors such as sunlight, soil, temperature, pH, air temperature, and soil moisture affect the types of numbers of plants under Hemlock and Oak trees?








**R**esults: (See charts that follow)





# Branch A of Hemlock Tree:

Factors Affecting Plant Growth	How Many?	Name of Plant	Description
Air Temperature: 39 F	9	Strawberry Plant	
Soil Moisture: 5.1%	4	Grass	
Soil Temperature: 41F	5	Lichen	
Light Intensity: 2250.69 lux	4	Unknown small plant	Three leaves, green, small, flat , round, leaves. 
PH: 4.64	1	Moss cover	



# Branch B of Hemlock Tree:



Factors Affecting Plant Growth	How Many?	Name of Plant	Description
Air Temperature: 40F	3	Grass	
Soil Moisture: 4.2%	2	Strawberry Plant	
Soil Temperature: 42 F	2	Lichen	
Light Intensity: 1517.37lux	2	Unknown Plant  Moss cover	Three leaves, green, small, flat , round, leaves. 
pH: 4.64	2		

# Oak Tree:



Factors Affecting Plant Growth	How Many?	Name of Plant	Description
Air Temperature: 40.5 F	9	Grass	
Soil Moisture: 14.3%	4	Strawberry Plant	
Soil Temperature: 52 F	2	Unknown	Three leaves, green, small, flat , round, leaves.
Light Intensity: 940.98 lux	6	Unknown	3 leaves. Green, edges are jagged. Grows in bunches.
PH: 6			

**C**onclusion: The purpose of this experiment was fulfilled. It was to compare different types of plants under hardwood trees such as Hemlock and Oak Trees.



# According to the Charts:

- ▶ The Oak tree has not moss cover, whereas the Hemlock trees both contain a lot of moss. The two major differences between the Hemlocks and the Oak is that the Oak tree receives much less sunlight, therefore also having a higher soil moisture.
- ▶ Branch A of the Hemlock Tree seems to have much more of each species of plants. This must have to do with the fact that it receives much more sunlight.
- ▶ The Oak Tree receives a little less sunlight than the Hemlock tree therefore leaving it with less plant species.
- ▶ The fact that the Oak tree contains so much more soil moisture could be the reason why it has more grass around it.
- ▶ Compared to the Hemlock tree, the Oak Tree has a much higher pH. The higher pH may have an affect on the number of plants growing around it.





Thankyou!

