Name:_____

Lab: Succession MAKEUP ASSIGNMENT

Remember: As per GHHS Policy, you have two days for each day absent to makeup assignments.

(Modified from Arizona State University)

Background: Ecological Succession is the process in which communities of plant and animal species in a particular area are replaced over time by a series of different and often more complex communities. Primary succession is succession in a bare area that has never been occupied by a community of organisms, while secondary succession is succession in an area in which natural vegetation has been removed or destroyed but the soil or bottom sediment has not been destroyed. This change in species over time reflects the ongoing struggle by different species for enough light, nutrients, food and space. Early in succession, species tend to be generalists and opportunists that are able to exploit limited resources quickly. Late in succession, species tend to be more specialized as the community increases in biodiversity.

PreLab Questions:

1. What is ecological succession?

2. How do primary succession and secondary succession differ?

What We Did in Class:

Students played a board game for which they assumed the role of an early-successional plant or a late-successional plant. They won or lost games based on events that occurred in the ecosystem, including fires, landslides or grazing.

Results:

Table One: Game One Results

Event	# cards played	Results	Character
Fire	12	1st place	Grickle Grass
Landslide	8	2nd place	Momerath Herb
Grazing	10	3rd place	Mimsy Bush
No Disturbance	5	4th place	Truffula Tree

Table Two: Game Two Results

Event	# cards played	Results	Character
Fire	5	1st place	Lorax Tree
Landslide	4	2nd place	Truffula Tree
Grazing	6	3rd place	Mimsy Bush
No Disturbance	20	4th place	Grickle Grass

PostLab Questions:

3. Which species tend to get ahead during times of no disturbance?

4. Identify two characteristics of species that get ahead during times of no disturbance.

5. Which species tend to get ahead after the ecosystem is disturbed?

6. Identify two characteristics of species that get ahead after the ecosystem is disturbed.

7. Would you characterize the community in game one as a forest, chaparral or grassland?

8. Would you characterize the community in game two as a forest, chaparral or grassland?

9. Describe two ways in which individuals of two different plant species might interact with each other. Will they always interact the same way?

10. This game simulates a terrestrial community. Identify an aquatic community and describe possible successional changes seen in that community.

11. Identify two ways in which humans influence ecological succession.

12. Name the book that influenced the characters in this lab.

Watch the video http://www.bozemanscience.com/ap-es-010-natural-ecosystem-change and answer the following
13. What is the name of the research station where climate is studied?

14. Name three sources of change in the climate discussed in the video.

15. Describe the coverage of ice during the last ice age.

16. Describe the change in species distribution as climate changes.

17. How long can it take primary successional changes to occur?

18. Why does secondary succession take less time than primary succession?

19. What have you learned from this makeup lab?