

Name: _____ Period: _____ Biome: _____ Due Date: _____

Biology Biome Project - PreAP

*** Please submit this paper with your project! (1 pt) ***

I. Cover (Front panel)

- Include the name of the biome. (3 pts)
- Your name and class period. (3 pts)
- Picture of the biome. (3 pts)

II. First Page:

- Write a paragraph describing 3 biotic and 3 abiotic factors for your biome. (15pts)
- Include in the *paragraph* the average temperature and precipitation. (5 pts)
- In the *paragraph*, note/describe the location of the biome and/or include a map. (5 pts)
- Include a climograph of the biome (drawn or printed). Ensure to obtain a climograph from an area within the center of your biome. Include a proper title and label both axes. (10 pts)

III. Middle page:

- Draw a food chain with 4 trophic levels using organisms native to the biome; include a picture and label the organism for each level. Do not cut and paste the entire food chain from a website. Pictures may be printed. (20 pts)
- Construct an energy pyramid for the food chain; show the amount of energy for each trophic level. You may begin with 4,000 calories. Do not cut and paste this from a website. (20 pts)

IV. Third page:

- Include pictures of 2 plants and 2 animals that are found in the biome. Printed pictures from a website may be used. (8 pts)
- For each picture, describe an adaptation that allows those organisms to survive in that environment. For example, a Jack Rabbit has long ears to assist with cooling itself the desert. The large, long ears have many blood vessels which enable the animal to cool. (8 pts)
- Describe: (1) limiting factors, (2) r-strategy, (3) k-strategy, (4) carrying capacity and (5) organism tolerance, (6) biotic potential, (7) dynamic equilibrium (14 pts)
- Describe at least four limiting factors that may affect carrying capacity - identify at least two density dependent and two density-independent factors (10 pts)

V. Fourth Page (Back of side panel)

- Describe mutualism and give an example from this biome. (10 pts)
- Describe parasitism and give an example from this biome. (10 pts)
- Describe commensalism and give an example from this biome. (10 pts)
- Describe competition and give an example from this biome. (10 pts)
- Describe and give an example of predator-prey relationship from this biome. (10 pts)

VI. Fifth page (Middle back panel)

- Identify and describe one cause of environmental damage to this biome. (5 pts)
- Describe how this damage is affecting the organisms that live in this biome. (5pts)
- Describe two possible solutions to prevent or reduce this problem. (5 pts)
- Work Cited: must include at least 3 sources (must be detailed and proper references). (5 pts)

VII. Neatness/Effort – (5 pts)

Total Points _____ / 200 pts

*Note: Extra bonus points awarded for extra effort.